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The costs of fitness to practise: a study of the Health and Care Professions Council

Executive summary and recommendations

### **Introduction**

This paper sets out some research conducted by Dr Stuart Redding and Dr Catia Nicodemo at the Centre for Health Service Economics and Organisation. The research is aimed to generate descriptive statistics for different features of the HCPC's Fitness to Practise processes and to address some specific questions regarding the factors which impact on costs.

### **Decision**

The Council is invited to discuss the attached document.

### **Background information**

None

### **Resource implications**

None

### **Financial implications**

The budget for this research was included within the Fitness to Practise and Policy and Standards budgets for 2014-2015.

### **Appendices**

See paper.

### **Date of paper**

17 March 2015

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**The costs of fitness to practise: a study of the  
Health and Care Professions Council**

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# **The Costs of Fitness to Practise: a study of the Health and Care Professions Council**

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**Acknowledgements**

HCPC is grateful to Stuart Redding and Catia Nicodemo at the Centre for Health Service Economics and Organisation for their contribution to this important area of regulatory practise

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## **Foreword**

I am delighted to welcome this monograph in our series on research relating to HCPC regulated professions. As with previous work in the series, it reflects our commitment to building the evidence base of regulation and bringing new thinking and empirical data to the field of professional regulation.

We have been pleased with the ways in which our previous reports have been used to generate debate and discussion. This report examines the economics of fitness to practise, something of a departure from our previous publications but nevertheless of great interest. HCPC is uniquely placed to generate a study of this kind, as it operates the same regulatory processes across all 16 professions, and the fee structure is not determined by profession.

As with other health and care regulators around the world, fitness to practise absorbs the majority of our costs. This study has looked at the determinants of fitness to practise costs, and found that the important factors influencing cost are more about the case and the circumstances surrounding the case and less about the person or their profession. Factors such as the nature of the complaint, the location in which the complaint arose, and the source of the complaint, had a stronger influence on cost than personal factors such as age or gender. There were some differences between professions, but these were not significant across all professions, suggesting that profession is not the major determinant of cost. The other important area of investigation was in the relative costs of the different stages in the fitness to practise process. Not surprisingly, there were a small number of high cost outliers at each stage, and the further into the process the case progressed, in general, the higher the cost.

This study is the first of its kind, made possible by independent expertise, a common dataset and good forecasting models. The authors recommend further analysis to look in more detail at some of the demographic details behind cases. Now that the methodology has been tested, it could be used to make more detailed comparisons. We know that there are significant differences in the fee structure of UK regulators, and this work and what follows may well help to identify some of the reasons behind these differences and suggest ways in which costs may be reduced further in the future.

**Anna van der Gaag**

**Chair**

## Executive Summary

This study aimed to generate descriptive statistics for different features of the HCPC's Fitness to Practise processes and to address some specific questions regarding the factors which impact on costs. The HCPC was able to provide a thorough and large data set on 2,130 cases, allowing us to analyse the costs at various stages. The analysis found that average cost per case at the initial stage was £5,439 and at the hearings stage was £33,403. The overall average cost per case was £9,228.

We looked at the impact of various factors on costs. Cases involving lack of competence and misconduct were the most costly. There were small differences based upon age, and cases involving men were on average more costly than those involving women. Other factors which impacted on costs were the sources of the complaint, with employers being amongst the most costly.

These results suggest that the important factors that influence cost are more about the *case and the circumstances surrounding the case* and less about the *person*. Profession of itself was not a clear predictor of cost. It would be beneficial to explore this subject more fully, ideally with a larger dataset or one that covers a longer time period to see if these observations are persistent.

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## **1. Introduction**

Investigating health and care professionals' fitness to practise (FTP) is an important part of the Health and Care Professions Council's (HCPC's) regulatory duty. The HCPC's primary objective is to protect the public through setting and maintaining standards and ensuring that all those on its Register continue to meet standards throughout their working lives. When concerns are raised about a professional's conduct or competence, the role of the HCPC is to investigate those concerns in a timely and transparent manner, and to determine whether or not the individuals' fitness to practise is impaired. If the evidence supports the allegation, the HCPC can impose a number of sanctions on the individual, including caution, suspension, conditions on their practise or removing them from the Register. This report provides details of an analysis of the costs involved in taking an individual through the fitness to practise process. There has been little research to date into how the costs vary across the different contexts in which an FTP case might arise.

In 2012/13, the HCPC spent approximately 45% of their budget investigating 1,653 cases where registrants' FTP was questioned. The level of spending by the HCPC is not unusual among health and care regulators. Across the world a significant proportion of spending on regulation is used to investigate FTP.

We have been able to construct, with the assistance of the HCPC, a dataset to investigate features of cases and the registrants involved that could affect the cost of FTP cases. These include demographic characteristics of the registrant and information about the nature and background of the complaint. The aims of the study were twofold. First, we aimed to generate descriptive statistics for different features of the FTP process. This is useful background information for the HCPC and other parties who could be affected by FTP, as it highlights issues that were perhaps not previously apparent, and also provides evidence on issues that had been suspected. It could be used to inform discussion on ways to deliver an improved and more cost-effective system for the investigation of FTP. A second aim was to use the dataset to address specific questions regarding the FTP process. For example, the role of legal representation on cost. This also aimed to show how a dataset such as this could be employed in future to give a better understanding of the factors at play in a process where incentives and behaviour can be complex.

## **2. Previous research**

UK health and care regulators routinely collect and publish information on their FTP costs and processes. For example, the nine UK healthcare regulators publish annual reports with analysis of aggregate costs, information about the procedures, and data describing particular

features of complaints and registrants subject to a case. The latest HCPC annual report on FTP can be found here:

<http://www.hcpc-uk.org/assets/documents/100049B8Fitnessstopractiseannualreport2014.pdf>

Although a large volume of data is collected and published, it has generally not been studied in a way that helps identify determinants of the likelihood of an FTP case or the costs incurred in an investigation. One exception is a research project by Humphrey et al (2009) entitled “Clarifying the factors associated with progression of cases in the GMC’s Fitness to Practise process”. This project used General Medical Council data to determine whether any demographic characteristics could explain the likelihood of a case progressing to certain stages of the FTP process. It highlighted the importance of country of qualification as a factor in predicting outcomes of FTP hearings. The study also made clear the issues associated with compiling a workable dataset, even though the GMC collect and make available a wide and thorough collection of data. We experienced similar difficulties in this work. This is one likely reason why there has been limited research despite an apparently large amount of data. A study commissioned by the Professional Standards Authority in 2011 (Ball et al, 2012) compared unit operating costs across all regulatory functions in nine UK health and care regulators, concluding that further work was required in order to understand the reasons behind differences in cost. One of the challenges in the Ball study was the lack of a common dataset with common standards and consistent definitions to allow accurate benchmarking of cost and performance.

### **3. Constructing the dataset**

The HCPC is unique amongst regulators. It regulates 16 professions using the same approach. Fees are the same across all professions, and all regulatory functions are operated in the same way. This includes the registrations processes, education approval, monitoring continuing professional development and investigating concerns. The investigation process, known as the Fitness to Practise process, involves a number of stages. When a concern is raised with the HCPC, a case manager will determine whether the case meets the HCPC’s criteria or ‘Standard of Acceptance’. If the case meets this standard, it will progress to an Investigating Committee Panel (ICP) stage. This panel will meet to decide whether there is a realistic prospect that the HCPC will be able to establish a case and recommend that the case proceed to a full hearing.

This multi professional, integrated approach allowed the creation of a thorough and large dataset, taking into account the costs at various stages. Combining it into a useable form was challenging and significant time and thought was required to produce a dataset suitable

for use in this project.

Cases opened between 1<sup>st</sup> April 2012 and 31<sup>st</sup> October 2013, which closed before 31<sup>st</sup> March 2014, have been included in the dataset. This time frame was chosen for the following reasons:

- 1) a new case management system was introduced at the beginning April 2012 and using data from two systems would have introduced further complications;
- 2) it was felt that including cases received very recently may bias the sample, as those that are closed quickly would be straightforward cases and likely to be cheaper;
- 3) 18 months would provide a large sample but also one that was unlikely to be affected by major policy changes.

This resulted in a sample of 2,130 cases.

The HCPC were able to provide a large amount of information on the costs incurred through the entire process of FTP investigation, from the point when the case was received until the point the case was concluded. This data came from models used to forecast costs for expenses such as staff and printing requirements, as well as direct expenses on a variety of matters such as hire of rooms for hearing costs and legal fees incurred on specific cases.

The main cost categories are listed in the Table 1 below:

**Table 1 Breakdown of Costs Included in the Analysis**

<b>Type of cost</b>	<b>How they were distributed</b>
Legal fees	Directly by case; Hours multiplied by an hourly rate
Disbursements from Legal firm	Directly by case
Various Investigating Committee Panel costs such as room hire, refreshments, committee member expenses (travel, hotels etc.)	Divided across the Investigating Committee Panel meetings on that day; assume that all Investigating Committee Panel hearings held on a given time/place consumed the same resources
Various hearing costs such as refreshments, committee member expenses, witness expenses	Directly by case
Preparation of document bundles for hearings and panels	Costs as proposed by HCPC budgeting model
Location costs	Directly for non-London hearings; rate at which HCPC hire alternative venue if held at HCPC premises
FTP staff costs	A staff cost per-day of investigation calculated, then multiplied by length of the investigation by case



When these costs were combined, the overall cost of investigating 2,130 cases was estimated at approximately £19.7m.

#### **4. Descriptive statistics**

This section looks at characteristics of three samples of the dataset. 4.1 examines the complete dataset; those cases which did not progress beyond an Investigating Committee Panel are considered in 4.2, and high cost cases are investigated in 4.3. Analysing the data in these three samples may help to give a better understanding of how characteristics of cases change as costs vary, which could help to develop and successfully implement cost-saving and quality-increasing policies. For example, it may highlight if any particular profession generates a large number of particularly high cost cases. This information can help policymakers focus their actions on the relevant group.

##### **4.1. Complete dataset**

Figure 1 shows the distribution of costs across the whole sample. It is clear that the distribution is skewed to the left, with many cases cheap to resolve. These are likely to be cases that do not meet the Standard of Acceptance, or when the cases brought to the HCPC are very easy to prove impairment, for example when there has already been a criminal conviction. It is notable that significant amounts of money are spent on FTP cases. The median cost is £5,600, so any cases that can be resolved without recourse to the hearings process are likely to provide significant savings for the HCPC and the professionals they register. The other notable point of this distribution is the lengthy tail. While the vast majority of cases were resolved for less than £10,000, there were rare cases that cost significantly more, with the most expensive case in this sample costing £85,572.

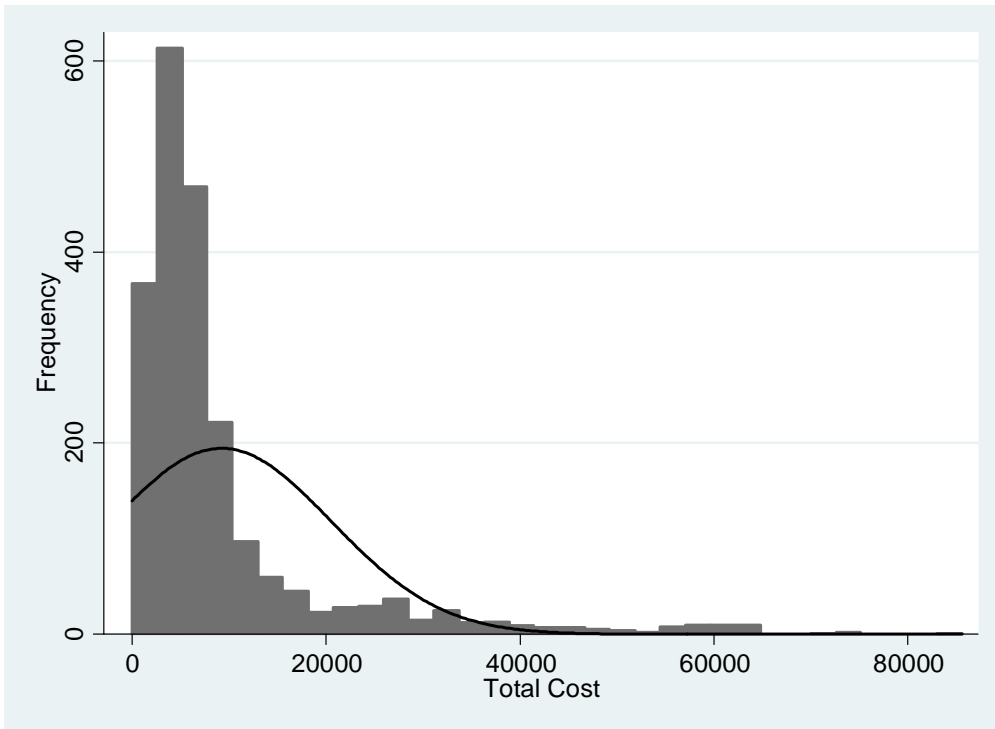


Figure 1 – Distribution of Total Cost

This inequality of costs across cases is further illustrated in Figure 2. This chart shows how aggregate costs are distributed from the low cost cases to the high cost cases. The 45-degree line shows what would happen if all cases cost the same; the further below this line, the less equally distributed are actual costs. This distribution is heavily biased to high cost cases, with the most expensive 5% of cases accounting for more than 26% of total cost.

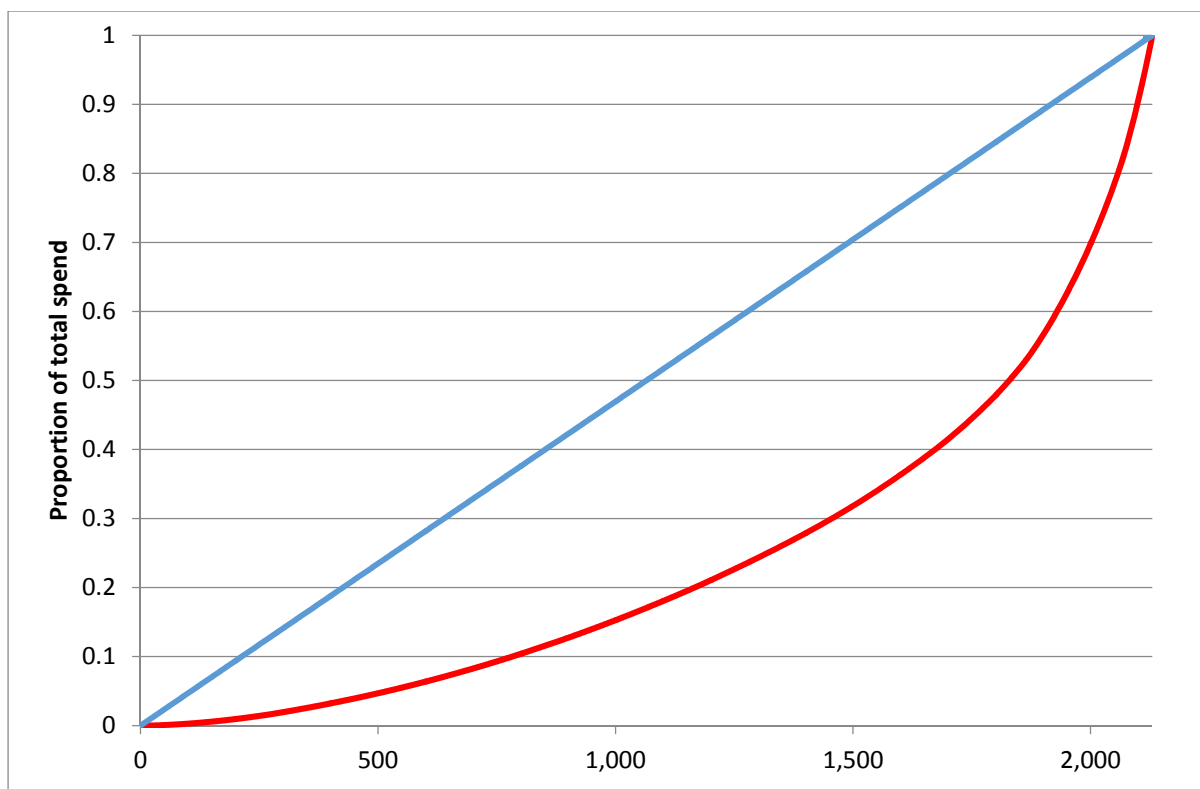


Figure 2 Cumulative Spend by Case

Table 1 gives the average cost by profession, and again this shows great variability both within professions and across professions. For example, the 226 psychologist cases were relatively low cost at an average of £6,591 per case. Operating Department Practitioners were the most expensive group at an average of £24,462, with some zero-cost cases and other high cost outliers. The average cost across the whole sample of 2,130 cases was £9,228. The standard deviation within each professional group ranged from £3,403 for the Clinical Scientists to £21,068 in the Operating Department Practitioners. While these figures suggest significant differences across professions, this table does not take into account other observable differences between cases which may affect case expenditure. This information is presented in the following tables and it is important to take this into account before drawing conclusions as it may mitigate some of the differences. Section 5 attempts to do this more formally by considering multiple variables in regression analysis.

**Table 1 - Profession of the Registrant (complete sample)**

Profession	N	Mean	Sd	Min	Max
Missing+	3	£5,727	£4,150	£1,320	£9,560
Arts Therapist	7	£11,677	£18,838	£1,200	£53,954
Biomedical Scientist	45	£9,812	£15,408	£400	£74,371

Chiropodists / Podiatrist	74	£8,304	£10,268	£40	£41,410
Clinical Scientist	11	£6,456	£3,403	£2,440	£14,280
Dietician	16	£10,672	£17,171	£2,276	£55,329
Hearing Aid Dispenser	37	£15,236	£17,241	£880	£58,805
Occupational Therapist	89	£11,299	£16,879	£0	£85,572
Operating Department Practitioner	88	£24,462	£21,068	£0	£63,042
Orthoptist	3	£2,960	£1,743	£1,160	£4,640
Paramedic	320	£10,853	£12,011	£0	£71,068
Physiotherapist	147	£8,665	£9,244	£280	£58,134
Practitioner	226	£6,591	£6,863	£0	£58,042
Psychologist	226	£6,591	£6,863	£0	£58,042
Prosthetist / Orthotist	1	£2,480	.	£2,480	£2,480
Radiographer	67	£11,229	£12,462	£640	£57,264
Social Worker	967	£7,468	£7,836	£40	£60,311
Speech and Language Therapist	29	£10,895	£15,484	£0	£58,297
<b>Total</b>	<b>2,130</b>	<b>£9,228</b>	<b>£11,324</b>	<b>£0</b>	<b>£85,572</b>

+ Profession not recorded

Table 2 presents the average cost for each different stage at which the case can be closed. It is likely that this would be a major determinant of cost, and unsurprisingly those that are closed without reaching an Investigating Committee Panel are the lowest cost group, at an average of £5,439. “No case to answer” is the second group, while the most costly ones on average are “caution complete” and “conduct and competence review” (CCC Review) which cost an average of £36,038 and £37,986 respectively. These are cases that go to the end of the FTP process and as such, require significant time and resources to deal with.

Table 3 shows the location at which the incident took place. The most expensive cases tend to take place in NHS and Private Hospitals. Education establishments have the lowest cost cases on average.

The source of complaint is explored in Table 4. Those from patients/service users or other registrants are the cheapest on average, at £5,983 and £5,499 respectively. Police and employer complaints are most expensive.

**Table 2 - Stage at which the Case was Closed (complete sample)**

Status	N	Mean	Sd	Min	Max
Case Closed - No ICP Panel	1,545	£5,439	£4,133	£0	£46,422
Case Closed - No Case to Answer	292	£6,740	£3,068	£1,183	£18,463

Case Closed - Not Well Founded	49	£33,901	£12,532	£15,330	£71,068
Case Closed - No Further Action	20	£24,685	£16,057	£5,840	£55,706
Case Closed - Struck Off	64	£30,260	£14,043	£3,510	£60,311
Case Closed - Voluntary Removal	15	£17,233	£7,495	£4,842	£33,946
Case Closed - Discontinued	4	£26,354	£152	£26,227	£26,531
Case Closed - Caution Complete	2	£36,038	£8,764	£29,841	£42,236
Case Closed - Caution in Progress	33	£25,348	£8,560	£12,763	£46,518
Case Closed - Sanction Revoked at Review	1	£24,366	.	£24,366	£24,366
CCC Review	100	£37,986	£18,323	£6,552	£85,572
HC Review	5	£19,696	£3,667	£16,697	£23,687
<b>Total</b>	<b>2,130</b>	<b>£9,228</b>	<b>£11,324</b>	<b>£0</b>	<b>£85,572</b>

**Table 3 - Location at which the Incident Took Place (complete sample)**

<b>Incident Location</b>	<b>N</b>	<b>Mean</b>	<b>Sd</b>	<b>Min</b>	<b>Max</b>
Missing	39	£7,727	£9,569	£1,000	£50,566
Education Establishment	31	£5,282	£6,534	£560	£38,736
Expert witness	9	£6,946	£3,614	£3,200	£13,240
Local Authority	245	£8,474	£9,897	£200	£85,572
NHS Hospital	199	£15,730	£17,391	£0	£74,371
Not During Work	227	£7,418	£7,790	£0	£41,584
Not known	269	£9,268	£10,243	£0	£58,805
Other	509	£7,148	£7,380	£0	£55,534
Other NHS Setting	168	£13,353	£15,542	£680	£71,068
Other Public Sector	13	£12,148	£15,698	£120	£57,531
Other private place	33	£8,847	£14,193	£440	£55,706
Patients Home	116	£8,655	£9,870	£480	£55,749
Prison	30	£8,331	£7,666	£680	£26,531
Private Clinic	67	£6,370	7,554	£40	£41,410
Private Hospital	22	£23,272	£25,541	£1,240	£63,042
Social Care Estate	153	£7,982	£9,761	£80	£60,311
<b>Total</b>	<b>2,130</b>	<b>£9,228</b>	<b>£11,324</b>	<b>£0</b>	<b>£85,572</b>

**Table 4 - Source of the Complaint (complete sample)**

<b>Source</b>	<b>N</b>	<b>mean</b>	<b>sd</b>	<b>min</b>	<b>max</b>
Missing	1	£4,842	.	£4,842	£4,842

Anonymous	65	£6,525	£6,950	£0	£30,750
Article 22(6)	21	£7,331	£10,551	£680	£50,566
Employer	496	£17,094	£17,722	£0	£85,572
Other	110	£9,362	£10,175	£560	£40,254
Other registrant	121	£5,499	£4,127	£0	£23,687
Patient/Service User	585	£5,983	£4,792	£40	£45,640
Police	39	£11,083	£11,423	£440	£37,488
Professional Body	19	£9,048	£9,381	£2,320	£43,723
Public	318	£6,077	£5,863	£0	£58,297
Self referral	355	£8,065	£8,434	£0	£49,067
<b>Total</b>	<b>2,130</b>	<b>£9,228</b>	<b>£11,324</b>	<b>£0</b>	<b>£85,572</b>

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Only 793 cases had grounds for complaint, as Table 5 below shows. “Lack of competence” and “misconduct” were the most expensive and also the most common. It is noticeable that they cost on average about three times more than the average case for which the grounds were not recorded. This is because a grounds for complaint is only determined once the standards of acceptance have been met, so grounds will not be decided for the quickly resolved, and likely lower cost, cases.

**Table 5 - Grounds for the Complaint (complete sample)**

Grounds	N	mean	sd	min	max
No Grounds Recorded	1,337	£5,644	£5,954	£0	£62,153
Barring Decision	1	£3,510	.	£3,510	£3,510
Caution	23	£8,552	£6,854	£360	£19,987
Conviction	85	£12,317	£9,173	£360	£41,584
Determination by	2	£6,960	£8,202	£1,160	£12,760
Health	15	£12,112	£7,902	£840	£23,687
Incorrect/Fraudulence	3	£7,133	£2,375	£4,520	£9,160
Lack of Competence	141	£17,255	£17,812	£1,680	£85,572
Misconduct	523	£15,703	£15,350	£440	£74,371
Total	2,130	£9,228	£11,324	£0	£85,572

Table 6 shows the average cost for registrants subject to a case within particular age groups. There do not appear to be any real differences across the age spectrum, with just £945 between the least expensive (51-60) and the most expensive (41-50) age groups.

**Table 6 - Age of the Registrant (complete sample)**

Age	N	mean	sd	min	max
21-30	161	£9,398	£11,133	£0	£57,264
31-40	440	£9,042	£11,770	£0	£85,572
41-50	748	£9,751	£12,011	£0	£64,653
51-60	602	£8,806	£10,388	£0	£74,371
61+	176	£8,820	£10,505	£280	£60,311
Total	2,127	£9,233	£11,331	£0	£85,572

As Table 7 shows, even though the most expensive case involved a woman, on average cases involving men are more expensive at £10,262 compared to £8,532 for women.

**Table 7 - Sex of the Registrant (complete sample)**

Gender	N	mean	sd	min	max
Missing	2	£5,016	£3,875	£2,276	£7,756
Female	1,254	£8,532	£11,006	£0	£85,572
Male	869	£10,262	£11,737	£0	£71,068
Total	2,125	£9,236	£11,335	£0	£85,572

Tables 8, 9 and 10 show how some factors interact with each other (see Appendix). Table 8 presents average cost by profession and source of complaint, e.g. the average cost of Arts Therapists where the source of complaint was an employer; Table 9 shows average cost by profession and source of complaint, and Table 10 presents average cost by location of incident and source of complaint. These tables all show sizable variation across different characteristics. However, it is important to note that given the large number of cells in each table, the number of observations with a particular pair of characteristics is likely to be small and these values will be seriously affected by any unusual cases.

#### **4.2. Cases that do not progress to an Investigating Committee Panel**

The next set of tables looks at the cases that are closed without reaching an Investigating Committee Panel (referred to as Pre-ICP in tables). This data may help to identify characteristics of cases that could be more suitably dealt with in a different way, because the cases in this sample do not result in any further investigation. In this sample, there were 1,545 observations which cost an average of £5,439 per case. This is significantly lower than the average cost in the overall sample because it omits the cases which progress to the later stages of the HCPC disciplinary process.

Figure 3 shows the distribution which, as with the overall sample, is skewed to the left with a large amount of relatively low cost cases and a few expensive outliers.



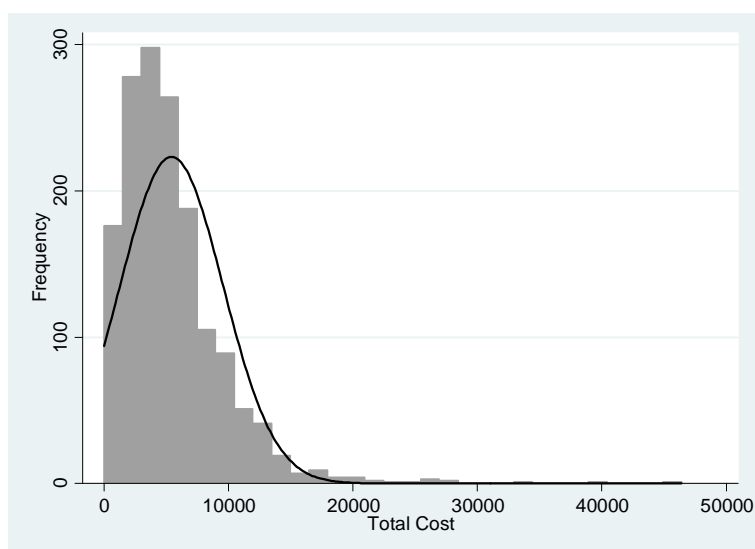


Figure 3 Distribution of Total Cost

Table 11 shows that more than half of these cases involved Social Workers. Operating Department Practitioners, the most expensive group in the complete dataset, do not stand out in this sample. This suggests their apparent expense may be due to a few unusually expensive cases. Leaving out the one Prosthetist/Orthotist, all other professions cost on average between £2,960 and £6,542 per case.

**Table 11 - Profession of the Registrant (sample pre ICP stage)**

Profession	N	mean	sd	min	max
Missing	1	£1,320	.	£1,320	£1,320
Arts Therapist	5	£5,088	£3,071	£1,200	£8,080
Biomedical Scientist	30	£4,536	£2,690	£400	£12,240
Chiropodists / Podiatrist	42	£3,643	£2,376	£40	£12,920
Clinical Scientist	9	£6,542	£3,772	£2,440	£14,280
Dietician	5	£3,704	£1,589	£2,360	£6,040
Hearing Aid Dispenser	25	£5,443	£3,414	£880	£12,680
Occupational Therapist	58	£4,948	£3,536	£0	£15,760
Operating Department technician	27	£4,320	£3,273	£0	£11,960
Orthoptist	3	£2,960	£1,743	£1,160	£4,640
Paramedic	232	£6,151	£4,569	£0	£27,557
Physiotherapist	85	£5,238	£4,142	£280	£22,360
Practitioner Psychologist	185	£5,295	£4,524	£0	£40,254
Prosthetist / Orthotist	1	£2,480	.	£2,480	£2,480
Radiographer	35	£4,817	£3,098	£640	£13,960
Social Worker	783	£5,551	£4,156	£40	£46,422
Speech and Language Therapist	19	£4,821	£3,298	£0	£12,600
<b>Total</b>	<b>1,545</b>	<b>£5,439</b>	<b>£4,133</b>	<b>£0</b>	<b>£46,422</b>

Looking at location of incident in Table 12, “private hospital” is the lowest at £2,704, but there were just five of these. “Other public sector” was the most expensive location at £7,015 but again, with a small number of observations (8).

**Table 12 - Location of Incident (sample pre-ICP stage)**

<b>Incident location</b>	<b>N</b>	<b>mean</b>	<b>sd</b>	<b>min</b>	<b>max</b>
Missing	35	£5,123	£3,209	£1,000	£12,680
Education Establishment	25	£4,112	£2,224	£560	£12,600
Expert witness	8	£6,695	£3,779	£3,200	£13,240
Local Authority	184	£5,416	£3,306	£200	£18,240
NHS Hospital	116	£6,006	£4,135	£0	£23,280
Not During Work	147	£4,148	£3,621	£0	£22,169
Not known	205	£5,979	£5,251	£0	£40,254
Other	411	£5,502	£4,196	£0	£46,422
Other NHS Setting	112	£6,164	£4,129	£680	£27,557
Other Public Sector	8	£7,015	£4,757	£120	£12,320
Other private place	26	£4,491	£2,940	£440	£11,560
Patients Home	82	£5,480	£3,520	£480	£17,480
Prison	21	£5,305	£2,973	£680	£11,080
Private Clinic	33	£3,819	£5,145	£40	£26,902
Private Hospital	5	£2,704	£1,981	£1,240	£6,160
Social Care Estate	127	£5,620	£4,117	£80	£20,200
<b>Total</b>	<b>1,545</b>	<b>£5,439</b>	<b>£4,133</b>	<b>£0</b>	<b>£46,422</b>

There are no significant patterns with source of complaint in Table 13. Police complaints are less costly but the majority of cases brought by them to the HCPC go beyond an Investigating Committee Panel.

**Table 13 - Source of Complaint (sample pre-ICP)**

<b>Source</b>	<b>N</b>	<b>mean</b>	<b>sd</b>	<b>min</b>	<b>max</b>
Anonymous	56	£4,518	£3,538	£0	£16,802
Article 22(6)	18	£4,691	£3,376	£680	£14,880
Employer	205	£5,845	£4,724	£0	£27,536
Other	91	£6,054	£5,194	£560	£40,254
Other registrant	107	£5,068	£3,516	£0	£22,360
Patient/Service User	523	£5,513	£3,639	£40	£25,941
Police	14	£4,170	£3,867	£440	£11,960
Professional Body	16	£7,563	£4,373	£2,320	£15,680

Public	264	£5,376	£4,635	£0	£46,422
Self referral	251	£5,149	£3,948	£0	£27,557
<b>Total</b>	<b>1,545</b>	<b>£5,439</b>	<b>£4,133</b>	<b>£0</b>	<b>£46,422</b>

Table 14 shows that at £7,133, Incorrect/fraudulent is the most high cost grounds for complaint in this sample, but there are just three observations with this characteristic. The second most expensive is "Misconduct" (£6,779) which is also the most common grounds recorded (apart from "grounds not recorded").

**Table 14 - Grounds for the Complaint (sample pre-ICP)**

Grounds	N	mean	sd	min	max
No Grounds Recorded	1,315	£5,280	£4,058	£0	£46,422
Caution	6	£3,147	£2,754	£360	£7,560
Conviction	17	£3,556	£3,252	£360	£9,884
Determination by Health	2	£6,960	£8,202	£1,160	£12,760
Incorrect/Fraudulent	3	£7,133	£2,375	£4,520	£9,160
Lack of Competence	28	£6,316	£2,827	£1,680	£11,160
Misconduct	169	£6,779	£4,675	£440	£33,787
<b>Total</b>	<b>1,545</b>	<b>£5,439</b>	<b>£4,133</b>	<b>£0</b>	<b>£46,422</b>

Table 15 demonstrates that there is little difference across age groups while Table 16 shows that cases involving female registrants are slightly more expensive than men in this sample, but the difference is small, £5,481 compared to £5,378.

**Table 15 - Age of the Registrant (sample pre-ICP)**

Age	N	mean	sd	min	max
21-30	111	£5,216	£3,690	£0	£17,920
31-40	323	£5,290	£3,734	£0	£27,557
41-50	541	£5,691	£4,536	£0	£46,422
51-60	439	£5,436	£3,900	£0	£26,902
61+	130	£4,993	£4,422	£280	£33,787
<b>Total</b>	<b>1,544</b>	<b>£5,441</b>	<b>£4,133</b>	<b>£0</b>	<b>£46,422</b>

**Table 16 - Sex of the Registrant (sample pre-ICP)**

Gender	N	mean	sd	min	max
Female	953	£5,481	£4,029	£0	£46,422
Male	590	£5,378	£4,301	£0	£40,254
<b>Total</b>	<b>1,543</b>	<b>£5,442</b>	<b>£4,134</b>	<b>£0</b>	<b>£46,422</b>

Tables 17, 18 and 19 recreate Tables 8-10 for this sample and the same caution is advised with regard to drawing strong conclusions, as each cell in the table is potentially influenced by a small number of observations (see Appendix).

### 4.3. High cost cases

The 285 high cost cases are presented in Tables 20-29. Figure 4 shows the distribution, which is slightly flatter than the other samples. It remains skewed to the left, with a lowest value of £16,252. Within this subsample, Dieticians and Arts Therapists appear particularly high cost however there are few observations from these professions (3 in total). While Operating Department Practitioners do not appear particularly costly when looking at Table 20, it is worth noting that they make up 17% of these high cost cases (50 out of 285) compared to just 4% (88 out of 2,130) of the overall sample.

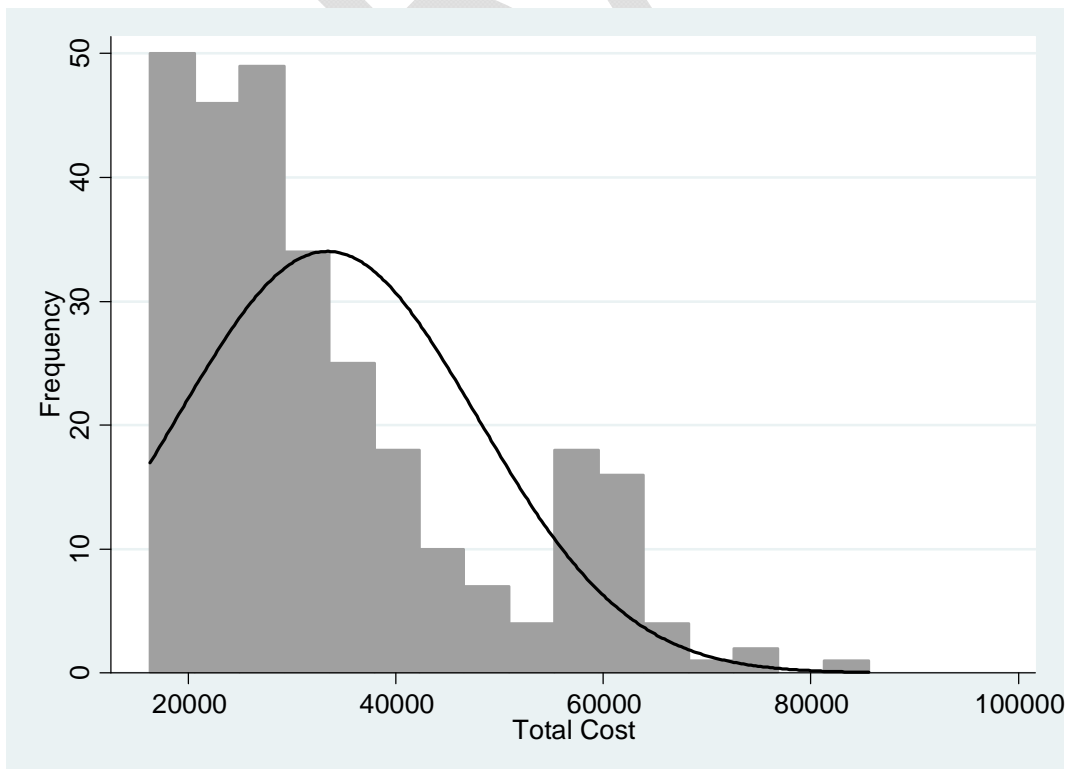


Figure 4 Distribution of Total Cost

**Table 20 - Profession of the Registrant (Cost greater than £16,252)**

Profession	N	mean	sd	min	max
Arts Therapist	1	£53,954	.	£53,954	£53,954
Biomedical Scientist	7	£37,104	£25,943	£17,328	£74,371
Chiropodist/Podiatrist	10	£31,891	£8,725	£19,479	£41,410
Dietician	2	£54,483	£1,196	£53,637	£55,329
Hearing Aid Dispenser	11	£38,391	£14,243	£20,166	£58,805
Occupational Therapist	14	£44,336	£21,768	£20,291	£85,572
Operating Department Practitioner	50	£38,689	£17,193	£16,318	£63,042
Paramedic	59	£32,834	£11,692	£16,443	£71,068
Physiotherapist	16	£30,634	£11,406	£18,645	£58,134
Practitioner Psychologist	13	£29,088	£11,178	£16,802	£58,042
Radiographer	14	£32,627	£10,825	£17,385	£57,264
Social Worker	84	£27,980	£11,138	£16,480	£60,311
Speech and Language Therapist	4	£47,033	£11,762	£34,450	£58,297
<b>Total</b>	<b>285</b>	<b>£33,403</b>	<b>£14,461</b>	<b>£16,318</b>	<b>£85,572</b>

Table 21 shows that “CCC reviews” made up nearly one third of these cases at an average cost of £40,532. Even though this sample consists of just the most expensive cases, 29 did not reach an Investigating Committee Panel. This may be an anomaly due to the way staff costs have been allocated (cost per day by length of investigation), but this observation still suggests that a significant amount of cases are in the system for some time without evidence to support the complaint, often due to the wait for police or employer investigations to be completed.

**Table 21 - Stage at which Case was Closed (Cost greater than £16,252)**

Status	N	mean	sd	min	max
Case Closed - No ICP Panel	29	£22,760	£7,171	£16,480	£46,422
Case Closed - No Case to Answer	2	£17,453	£1,428	£16,443	£18,463
Case Closed - Not Well Founded	47	£34,678	£12,197	£19,584	£71,068
Case Closed - No Further Action	13	£32,953	£13,831	£17,274	£55,706
Case Closed - Struck Off	55	£32,942	£13,253	£16,580	£60,311
Case Closed - Voluntary Removal	6	£24,424	£5,411	£20,166	£33,946

Case Closed - Discontinued	4	£26,354	£152	£26,227	£26,531
Case Closed - Caution Complete	2	£36,038	£8,764	£29,841	£42,236
Case Closed - Caution in Progress	29	£26,861	£8,005	£17,038	£46,518
Case Closed - Sanction Revoked at Review	1	£24,366	.	£24,366	£24,366
CCC Review	92	£40,532	£16,816	£16,318	£85,572
HC Review	5	£19,696	£3,667	£16,697	£23,687
<b>Total</b>	<b>285</b>	<b>£33,403</b>	<b>£14,461</b>	<b>£16,318</b>	<b>£85,572</b>

With 61 of these 285 incidents, NHS Hospitals were the most common location in this sample, although several other locations had higher average costs. The most expensive location in Table 22 was “other private place” at £51,972.

**Table 22 - Location of Incident (Cost greater than £16,252)**

<b>Incident location</b>	<b>N</b>	<b>mean</b>	<b>sd</b>	<b>min</b>	<b>max</b>
Missing	3	£36,128	£14,774	£21,039	£50,566
Education Establishment	1	£38,736	.	£38,736	£38,736
Local Authority	27	£30,765	£15,666	£16,920	£85,572
NHS Hospital	61	£38,032	£15,621	£16,580	£74,371
Not During Work	28	£24,735	£6,796	£17,274	£41,584
Not known	36	£31,162	£11,557	£16,595	£58,805
Other	41	£27,803	£9,934	£16,443	£55,534
Other NHS Setting	39	£37,422	£15,951	£17,711	£71,068
Other Public Sector	2	£44,178	£18,883	£30,826	£57,531
Other private place	3	£51,972	£6,379	£44,607	£55,706
Patients Home	13	£32,824	£12,049	£17,038	£55,749
Prison	4	£26,354	£152	£26,227	£26,531
Private Clinic	5	£29,291	£8,847	£16,802	£41,410
Private Hospital	11	£42,219	£23,959	£16,318	£63,042
Social Care Estate	11	£38,273	£13,211	£20,200	£60,311
<b>Total</b>	<b>285</b>	<b>£33,403</b>	<b>£14,461</b>	<b>£16,318</b>	<b>£85,572</b>

Table 23 shows that 184 of these 285 complaints came from employers, and with the exception of one received from a professional body, and one pursued under Article 22(6), (process whereby anonymous complaints are dealt with), “employers” was the highest cost source of complaints. These had an average cost of £35,869 per case.

**Table 23 - Source of Complaint (Cost greater than £16,252)**

Source	N	mean	sd	min	max
Anonymous	7	£23,528	£6,428	£16,802	£30,750
Article 22(6)	1	£50,566	.	£50,566	£50,566
Employer	184	£35,869	£16,171	£16,318	£85,572
Other	16	£32,115	£6,169	£17,038	£40,254
Other registrant	3	£23,245	£766	£22,360	£23,687
Patient/Service User	17	£25,270	£10,143	£16,480	£45,640
Police	6	£34,103	£8,245	£17,274	£37,488
Professional Body	1	£43,723	.	£43,723	£43,723
Public	11	£29,639	£12,534	£16,443	£58,297
Self referral	39	£28,643	£8,031	£17,385	£49,067
Total	285	£33,403	£14,461	£16,318	£85,572

“Lack of competence” was the most costly grounds of complaint, as shown in Table 24.

Tables 25 and 26 show that age and gender continue to have little impact.

**Table 24 - Grounds of Complaint (Cost greater than £16,252)**

Grounds	N	mean	sd	min	max
No Grounds Recorded	30	£33,611	£18,548	£16,802	£62,153
Caution	5	£19,369	£682	£18,645	£19,987
Conviction	28	£23,108	£5,985	£16,318	£41,584
Health	8	£18,527	£3,207	£16,580	£23,687
Lack of Competence	42	£40,608	£16,247	£16,443	£85,572
Misconduct	172	£34,383	£13,130	£16,480	£74,371
Total	285	£33,403	£14,461	£16,318	£85,572

**Table 25 - Age of the Registrant (Cost greater than £16,252)**

Age	N	mean	sd	min	max
21-30	25	£31,990	£11,614	£16,480	£57,264
31-40	52	£36,411	£15,679	£17,711	£85,572
41-50	109	£34,137	£15,153	£16,318	£64,653

51-60	68	£32,711	£14,387	£16,443	£74,371
61+	31	£28,433	£10,911	£16,802	£60,311
Total	285	£33,403	£14,461	£16,318	£85,572

**Table 26 - Sex of the Registrant (Cost greater than £16,252)**

Gender	N	mean	sd	min	max
Female	132	£34,617	£17,319	£16,318	£85,572
Male	153	£32,355	£11,395	£16,595	£71,068
Total	285	£33,403	£14,461	£16,318	£85,572

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The analysis presented to this point shows there are factors that appear to influence the cost of individual FTP investigations. Age and gender appear to have minimal influence, and variables relating to the source, location and type of complaint appear to have an influence on costs. However, so far the study has looked at each of these factors in isolation. In order to determine if any are significantly important, it is necessary to carry out regression analysis in which all dimensions of FTP investigations can be included and compared. This analysis is discussed in section 5.

## 5. Further analysis

### 5.1. Clarifying the factors that affect costs

The regression in Table 30 includes factors discussed in section 4 to determine the main drivers of cost in FTP hearings. Table 30 shows regression results with coefficients, standard errors, t-statistics, p-values and confidence intervals for the variables which are exogenous to the process – i.e., information which is known before, or very early in, the FTP process. In order for these regressions to produce meaningful results, for each set of variables, one value has to be omitted. For example, one profession, one age group etc. As a result, the coefficients should be interpreted as the difference between the omitted group and the group in question. Figures 5-9 present these results graphically, with each category of variable in an individual plot. These figures illustrate the confidence intervals of each coefficient – any that overlap “0” are not significantly different from the omitted group.

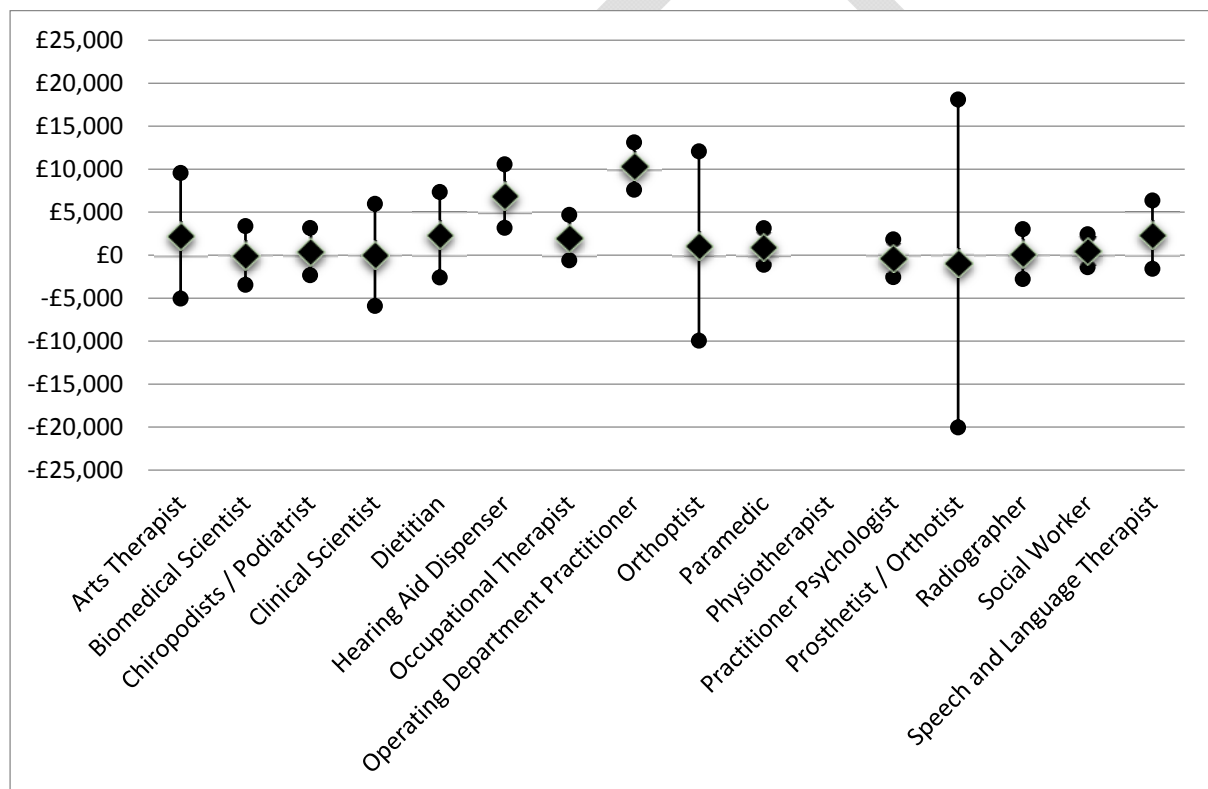


The first set of variables look at age of the registrant. Although Figure 5 suggests a slightly higher cost for registrants subject to a case aged 41-50 and 51-60 than those aged over sixty, none of these coefficients are significantly different from 0.

Cases involving male registrants are slightly more expensive than those concerning female registrants, although the difference is small.

The coefficients on professions give the difference in cost between professions when other factors have been considered. They vary by several thousand pounds, and two, Operating Department Practitioners and Hearing Aid Dispensers, are significantly more expensive than the omitted group, Physiotherapists. None are significantly cheaper on average than Physiotherapists.

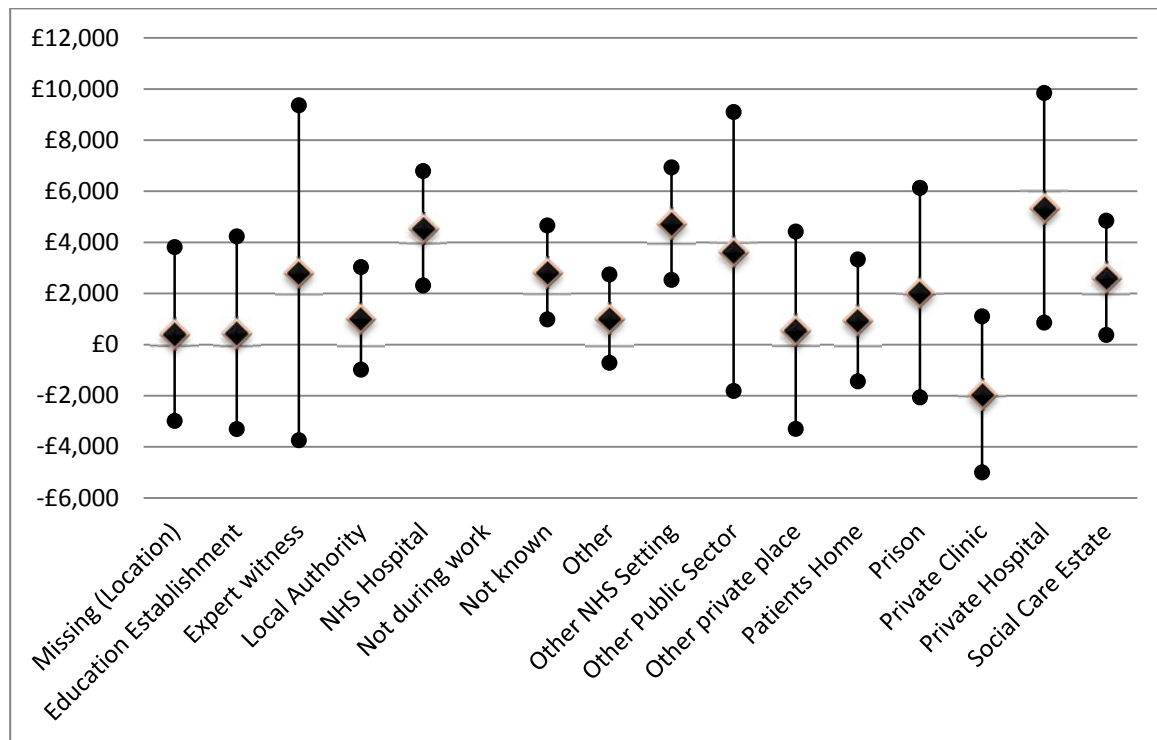
**Figure 6 – Impact of Profession of Registrant on Cost**



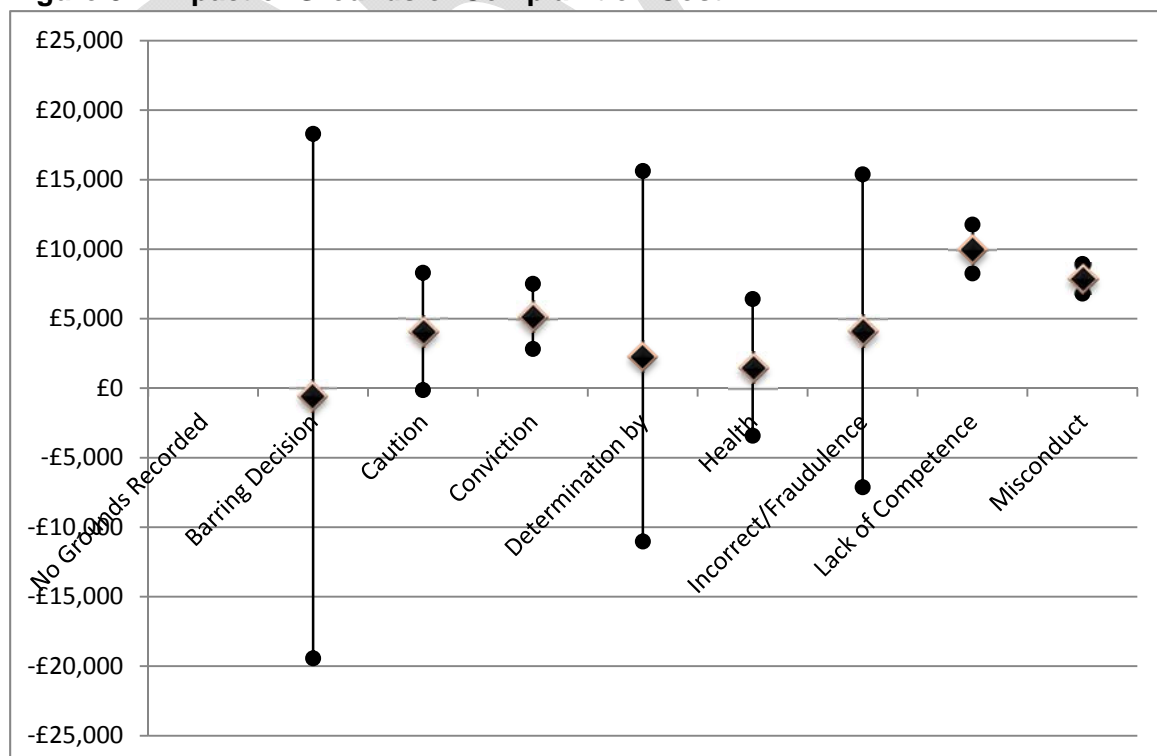
Cases that take place in private clinics, such as those operated by small independent practitioners, appear cheapest to investigate, although the average cost of these cases is not significantly lower than the omitted group of cases committed “not at work”. “NHS hospitals”, “not known”, “other NHS settings”, “Private Hospitals” and “Social Care Estates” are all significantly more expensive on average than cases recorded as being committed “not at work”.

Several grounds of complaint appear more costly than “no grounds recorded”. This is not surprising as the grounds are only recorded once the case has been shown to meet the standard of acceptance. Cases concerning “convictions”, “lack of competence” and “misconduct” are all significantly more expensive than those where no grounds are recorded.

**Figure 7 – Impact of Location of Offence on Cost**

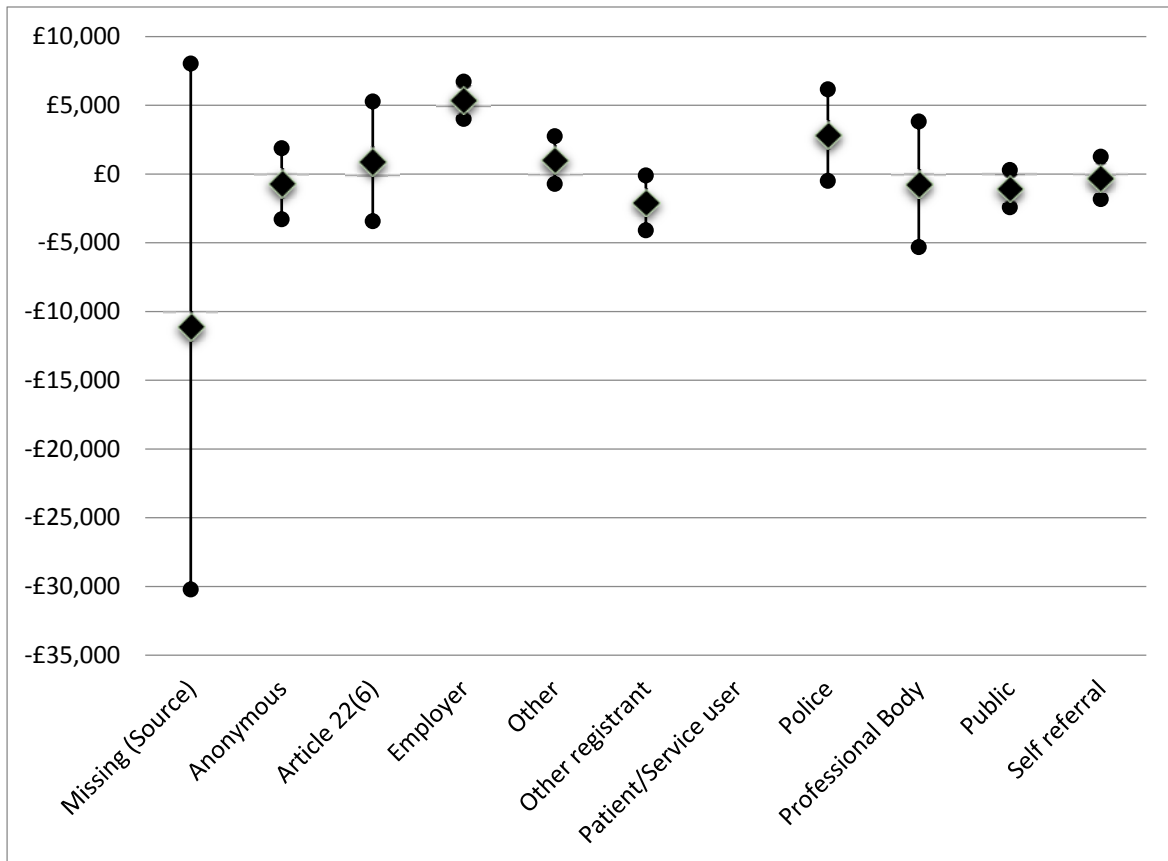


**Figure 8 – Impact of Grounds of Complaint on Cost**



The final set of variables included in this regression show the impact of the source of complaint. “Missing” is the cheapest group but has a large variance and cannot be shown to be significantly cheaper than complaints from patients/other service users. Complaints from employers are significantly more expensive than “patient/other service user” complaints, while those from other registrants are significantly cheaper.

**Figure 9 – Impact of Source of Complaint on Cost**



These results suggest that the important factors that influence cost are more about the *case and the circumstances surrounding the case* and less about the *person*. Issues that appear important are those such as location of the case, grounds for the complaint and source of the complaint. The demographic factors that we had access to do not appear to be significant in the regression. It would be interesting to explore this further if more demographic data was available.

## 5.2. Model looking at the differences between high and low cost cases

Given the wide variation in costs, it may be that the influences of specific factors are different at certain levels of the cost spectrum, a possibility that was discussed as a reason for investigating the samples analysed in sections 4.2 and 4.3. As such, sensitivity analysis was performed to identify these issues, which may be lost in the more general analysis of section 5.1. In particular, we investigate whether explanatory factors have a different impact in high and low cost cases.

We have performed a process in which the sample is broken down into two subsets and any differences in the results can be allocated to different causes, namely:

**Characteristics** – the mean difference in cost caused by differences in the characteristics of the cases in each group.

**Coefficients** – the mean difference in cost above and beyond that caused by the impact of the characteristics of each group. This can be interpreted as the factors that appear to play different roles at higher levels of cost.

In effect, differences caused by **characteristics** are caused by *observable* differences in the two samples, while differences caused by **coefficients** are caused by *unobservable* differences, and suggest that there may be a different relationship as costs increase.

The data was split into low cost and high cost cases, with the cut-off point being £16,252 as with the analysis presented in section 4.3. Approximately 30% of the difference can be explained by the two groups having different characteristics<sup>1</sup>. This difference in characteristics was almost entirely an uneven distribution of the stage at which the cases were closed between high and low cost cases. “CCC review”, “caution in progress”, “no further action”, “not well founded” and “struck off” all led to significantly more money being spent on cases in the expensive sample.

In addition to being distributed differently in the two samples, the variables measuring the stage at which the case was closed tend to have different effects (significant coefficient

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<sup>1</sup> These results are not presented here but are available on request

differences) in the high and low cost groups. This implies that as well as (for example) CCC review cases being more common in the expensive sample, unobservable factors lead to the impact of a CCC review case being greater if the case was “high” cost rather than “low” cost. Most of the other types of explanatory variables had a similar impact in the high and low cost groups.

So far this work has presented the data in ways that highlight factors that influence the cost of FTP cases. This has produced useful observations about how costs vary, and these observations will generate discussion and debate. However, the dataset can also be used to answer questions about specific issues affecting FTP; sections 5.3 and 5.4 provide examples.

### **5.3. The impact of representation in cases that get to a hearing**

We investigated the impact of legal representation at cases that reached a hearing. It was proposed that whether a registrant represented themselves, appointed a third party to represent them, or was unrepresented at a hearing, might impact on the overall cost of the FTP case. The regressions in Tables 31 and 32 investigate this issue. There were 224 observations in the sample that went to a hearing; 58 of these were represented by others, 27 represented themselves and 139 were not represented. The results suggest that those who had representation and those that represented themselves were more expensive on average than those who had no representation but these differences were not significant. The effect of representation decreases when profession is taken into account. The robustness of these results can be tested by performing a “goodness of fit” test, which compares the predicted values with the actual values. The test statistics show that the regressions do not perform particularly well. When profession is included, the model is able to predict approximately 20% of the variation in outcomes, and the regression considering just representation has almost zero explanatory power. This means that most of the variation in costs is due to factors not included in these regressions.

The methods employed here assume that the decision to employ representation is taken exogenously, i.e., independent of any observable features of the case. However, it is possible to imagine situations where this choice could depend on the registrant’s prediction of their outcome. There are statistical methods that could be adopted without this assumption. This is an area that could benefit from further investigation.

### **5.4. Impact of Profession on Cost per Case**

Work to this point has suggested that some professions experience more costly hearings than others. This section attempts to test this hypothesis more formally, using F-tests and

regressions. The test presented under Table 33 determines whether any of the average costs by profession are significantly different from each other. If this test statistic proved to be insignificant, that would indicate that all professions cost the same on average. However, this is not the case, and the significance of this test shows that at least one profession has a statistically higher (or lower) average cost than the control group (Physiotherapists<sup>2</sup>). The regression in Table 33 shows which professions have significantly different average costs than Physiotherapists. It appears that Hearing Aid Dispensers, Operating Department Practitioners and Paramedics are significantly more expensive than Physiotherapists (taken as the control group here), while Practitioner Psychologists are less expensive. It is important to note that these two results only show how professions differ, on average, from Physiotherapists. There are two caveats to consider. Firstly, we are comparing the *average* cost for individual professions. We are not saying that Hearing Aid Dispensers are always cheaper to investigate than Physiotherapists, rather, that over a large number of cases involving Hearing Aid Dispensers, we would expect the average cost to be less than that of an equivalent set of cases involving Physiotherapists. Secondly, these results can only be used to show whether other professions have significantly different costs to Physiotherapists, and not compared to another profession. For example, we cannot say, using these results, that Hearing Aid Dispensers are cheaper than Operating Department Practitioners. Further analysis would be needed before we could make this type of statement.

The final test in the Appendix performs the same test for the profession coefficients when other controls are included in the regression, i.e., testing the profession coefficients from Table 30. This is testing whether the professions have different average costs after controlling for other observable features of the registrants subject to a case. Although the test statistic is much lower in this test, it still suggests that not all profession specific coefficients are equal to 0 and we can therefore conclude that cases for some professions cost more than others. It would not be wise to draw a conclusion that different professions make a difference to costs in the same way that, for example, stage at which a complaint is closed, type of complaint and source of complaint do, due to the lack of economic reasoning why the apparent differences across professions should occur. As such it would be beneficial to explore this subject more fully, ideally with a larger dataset or one that covers a longer time period to see if this observation is persistent across professions or more random.

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<sup>2</sup> Physiotherapists were the 'omitted' profession in the calculation because the average cost of this profession was nearest to the average cost of the whole sample

## 6. Conclusions

This report has been able to look at FTP costs using HCPC data in a way that has not been attempted before. It combined data from a variety of sources to capture various aspects of FTP investigations and has produced a thorough dataset to interrogate. The main purpose of this paper has been to present data in a way that can help HCPC to learn about its processes and highlight areas for further investigation, in particular identifying situations where cost is different from average. This dataset can further be used to explore the possible impact of policy to ameliorate the cost of regulation.

Some variation in cost across groups is inevitable. One question is how far this variation might be regarded as accidental. At present, we do not have enough evidence to fully explain why these cost differences arise and strong conclusions should not be drawn without more in-depth research. Answering this question would require developing a better understanding of the complexities and nuances of the FTP processes so that hypotheses could be posed and then tested. These hypotheses may not entirely concern cost but could investigate issues such as stage at which the case is closed, now that this variable's key role in determining cost has been identified. Further data would be required on aspects of FTP beyond those collected for the purposes of this work so that we can examine whether variation is appropriate, consistent or merely a feature of the data analysed here.

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# DRAFT

## Appendix

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COMPLETE SAMPLE

**Table 8 - Average Cost by Profession and Source of Complaint**

	Missing	Anonymous	Article 22(6)	Employer	Other	Other registrant	Patient/Service User	Police	Body	Public	Self referral
Missing				£9,560	£6,302					£1,320	
Arts Therapist				£19,166	£8,080					£4,040	
Biomedical Scientist		£4,520		£18,280		£5,243				£5,067	£7,519
Chiropodists / Podiatrist		£8,232	£8,334	£6,071	£13,351	£4,647	£6,336	£27,319	£2,901	£5,138	£5,699
Clinical Scientist		£2,440		£5,165		£6,050				£4,845	£9,840
Dietician		£2,360	£6,040	£24,028			£4,042		£3,703	£5,275	£4,045
Hearing Aid Dispenser		£7,280		£33,387		£5,720	£6,451		£10,320	£5,386	£27,993
Occupational Therapist		£2,880	£25,683	£21,536	£9,660	£4,800	£6,103		£10,742	£4,651	£9,207
Operating Department Practitioner		£5,120		£32,557	£29,642	£4,093		£11,960	£4,300	£4,211	£9,983
Orthoptist										£4,640	£2,120
Paramedic		£8,330	£6,930	£17,374	£9,677	£4,556	£8,560	£2,320	£7,320	£6,044	£8,085
Physiotherapist				£12,565	£8,033	£6,893	£6,127	£11,102	£4,140	£6,306	£11,276
Practitioner Psychologist		£10,821	£3,400	£11,030	£7,725	£4,622	£5,682	£4,680	£3,920	£7,083	£5,245
Prosthetist / Orthotist							£2,480				
Radiographer			£6,702	£15,208	£13,855	£4,322	£10,610	£5,177		£3,747	£10,356
Social Worker		£2,397	£3,927	£12,896	£6,601	£6,834	£5,926	£5,977	£16,369	£5,721	£7,091
Speech and Language Therapist	£4,842			£22,740	£4,520	£4,440	£5,497			£13,031	£7,622

COMPLETE SAMPLE

**Table 9 - Average Cost by Profession and Source of Complaint**

	Missing	Education Establishment	Expert witness	LA Establishment	NHS Hospital	Not During Work	Not known	Other	Other NHS Setting	Other Public Sector Place of Employment	Other private place of employment	Patients Home	Prison	Private Clinic	Private Hospital	Social Care Establishment
Missing								£3,811	£9,560							
Arts Therapist				£2,345	£4,640			£5,387	£53,954							
Biomedical Scientist	£5,560				£10,948	£12,396	£2,761	£400	£3,300						£5,463	
Chiropodists / Podiatrist		£2,760			£11,540	£5,918	£5,602	£10,629	£4,563		£3,560	£4,587		£5,785	£4,291	£32,352
Clinical Scientist					£7,160	£7,560		£6,803						£5,165	£2,440	
Dietician					£21,611	£4,693		£3,719								
Hearing Aid Dispenser	£12,680					£18,336	£26,426	£4,629	£20,268		£17,647	£11,300		£30,096		
Occupational Therapist	£50,566	£3,423		£21,223	£8,239	£5,484	£8,618	£6,876	£38,156	£6,480	£11,560	£5,175		£4,440	£8,843	£5,242
Operating Department Practitioner	£1,000	£5,440			£30,194	£7,338	£1,040	£17,278							£39,028	
Orthoptist						£2,120		£4,640								
Paramedic	£4,388	£2,720			£12,109	£6,503	£10,845	£10,918	£11,943	£17,841	£3,020	£17,449				£8,800
Physiotherapist		£2,573		£5,970	£12,169	£7,748	£12,151	£8,059	£14,403		£4,767	£7,397		£6,509	£4,081	
Practitioner Psychologist	£5,034	£4,969	£7,079	£8,732	£6,752	£6,886	£7,026	£5,166	£15,601	£4,480	£2,998	£3,240	£8,423	£5,718		£2,840
Prosthetist / Orthotist											£2,480					
Radiographer		£38,736			£12,887	£12,502	£5,028	£5,992								£3,920
Social Worker	£8,152	£3,783	£5,880	£7,889	£7,880	£7,328	£8,796	£6,845	£7,054	£10,799	£4,467	£7,130	£5,663		£2,000	£7,045
Speech and Language Therapist		£7,108		£20,632	£13,333	£2,710		£4,857	£26,503					£4,000		£4,123

**Table 10 - Average Cost by Location of Incident and Source of Complaint**

COMPLETE SAMPLE

	Missing	Education Establishment	Expert witness	LA Establishment	NHS Hospital	Not During Work	Not known	Other	Other NHS Setting	Other Public Sector Place of Employment	Other private place of employment	Patients Home	Prison	Private Clinic	Private Hospital	Social Care Establishment
Missing								£4,842								
Anonymous	£5,800	£1,080		£400	£6,842	£2,260	£5,914	£9,871	£6,035	£5,642	£10,640	£6,340		£16,802	£2,220	£3,600
Article 22(6)	£50,566			£3,462		£8,196	£2,040	£5,462	£4,240							
Employer	£4,247	£3,865		£14,299	£22,141	£13,764	£18,606	£11,914	£23,068	£16,553	£41,369	£16,102	£4,686	£6,187	£29,369	£11,459
Other	£21,209	£12,834		£7,622	£24,055	£4,086	£8,700	£6,788	£10,387		£7,280	£11,499			£5,351	£6,504
Other registrant	£4,120		£5,612	£5,780	£5,498	£4,977	£8,942	£4,951	£4,896	£10,360	£2,973	£4,660	£5,615	£3,680	£1,680	£2,460
Patient/Service User	£4,605	£6,191	£8,480	£5,302	£7,970	£17,716	£6,117	£5,883	£5,737	£6,480	£3,402	£6,355	£5,217	£6,048	£1,240	£6,393
Police				£440	£11,960	£5,348	£10,678	£5,507			£1,800					£37,469
Professional Body	£12,680	£5,440			£3,160		£4,620	£5,663	£5,401							£24,201
Public	£7,021	£3,887	£5,880	£8,824	£7,178	£5,391	£5,791	£5,665	£6,368		£4,165	£5,312	£17,010	£6,852		£3,463
Self referral	£10,751			£8,236	£12,749	£6,508	£9,223	£8,143	£9,377	£5,040	£6,260	£10,990		£1,080		£5,369

**Table 17 - Average Cost by Profession and Source of Complaint**

	Anonymous	Article 22(6)	Employer	Other	Other registrant	Patient/Service User	Police	Professional Body	Public	Self referral
Missing									£1,320	
Arts Therapist			£1,200	£8,080					£4,040	
Biomedical Scientist	£4,520		£2,150		£5,243				£5,067	£4,100
Chiropodists / Podiatrist	£4,313	£3,400	£3,440	£4,000	£4,664	£2,728	£520	£2,320	£2,760	£5,952
Clinical Scientist	£2,440				£6,050				£2,720	£9,840
Dietician	£2,360	£6,040	£2,960						£4,640	£2,520
Hearing Aid Dispenser	£7,280		£9,298		£5,720	£3,437		£10,320	£5,390	
Occupational Therapist	£2,880	£800	£4,105	£9,660	£4,800	£6,018		£10,742	£4,845	£3,875
Operating Department Practitioner	£5,120		£3,952	£5,200	£4,093		£11,960	£4,300	£4,211	£3,529
Orthoptist									£4,640	£2,120
Paramedic	£5,294	£6,930	£7,257	£5,920	£4,414	£8,560	£2,320	£7,320	£5,464	£6,154
Physiotherapist			£6,774	£5,707	£6,893	£4,617	£2,340	£4,140	£5,726	£3,625
Practitioner Psychologist	£10,821	£3,400	£4,312	£7,860	£3,987	£4,908	£4,680	£3,920	£5,415	£4,495
Prosthetist / Orthotist						£2,480				
Radiographer		£6,702	£5,387	£5,561	£4,150	£5,040	£2,771		£3,747	£3,820
Social Worker	£2,397	£3,710	£5,715	£5,030	£5,737	£5,809	£5,272	£9,530	£5,559	£4,867
Speech and Language Therapist			£2,360	£4,520	£4,440	£5,497			£7,630	£2,256

**Table 18 - Average Cost by Profession and Location of Incident**

	Missing	Education Establishment	Expert witness	Local Authority Establishment	NHS Hospital	Not During Work	Not known	Other	Other NHS Setting	Other Public Sector Place of Employment	Other private place of employment	Patients Home	Prison	Private Clinic	Private Hospital	Social Care Establishment
Missing					£4,640			£1,320								
Arts Therapist					£4,677	£12,240	£1,860	£5,387								
Biomedical Scientist	£5,560				£7,480	£3,920	£6,160	£400	£3,300							
Chiropodists / Podiatrist		£2,760			£7,160	£7,560		£2,480	£4,364		£3,560	£3,800		£1,818		
Clinical Scientist					£2,960	£4,400		£6,747								£2,440
Dietician						£8,680	£4,640	£2,360								
Hearing Aid Dispenser	£12,680				£4,907	£3,982	£7,630	£4,629			£4,775	£4,432				
Occupational Therapist				£5,447	£4,955	£4,092	£1,040	£3,934	£8,387	£6,480	£11,560	£4,680		£4,440		
Operating Department Practitioner	£1,000	£5,440				£2,120		£6,630								
Orthoptist					£10,156	£4,752	£7,335	£4,640								
Paramedic	£3,000	£2,720			£7,591	£3,236	£6,095	£5,871	£6,454	£5,040	£3,020	£6,295				8,800
Physiotherapist		£2,573			£5,207	£3,804	£6,194	£5,254	£3,400		£4,434	£8,480		£3,345	£3,027	
Practitioner Psychologist	£5,034	£5,427	£6,811	£5,573				£5,095	£4,930	£4,480	£3,360	£3,240	£5,305	£6,754		£2,840
Prosthetist / Orthotist					£4,872	£4,720	£4,733				£2,480					
Radiographer					£7,880	£3,957	£5,685	£4,874								£3,920
Social Worker	£6,018	£3,777	£5,880	£5,454	£6,750	£2,710		£5,879	£6,627	£8,024	£4,467	£5,579			£2,000	£5,604
Speech and Language Therapist		£8,560		£1,800				£4,920	£4,440					£4,000		

**Table 19 - Average Cost by Location of Incident and Source of Complaint**

	Missing	Education Establishment	Expert witness	Local Authority Establishment	NHS Hospital	Not During Work	Not known	Other	Other NHS Setting	Other Public Sector Place of Employment	Other private place of employment	Patients Home	Prison	Private Clinic	Private Hospital	Social Care Establishment
Anonymous	£5,800	£1,080		£400	£6,842	£2,260	£2,640	£3,665	£6,035		£10,640	£6,340		£16,802	£2,220	£3,600
Article 22(6)				£2,360		£5,660	£2,040	£5,462	£4,240							
Employer	£4,247			£6,464	£6,221	£4,407	£7,642	£5,548	£7,382	£1,580	£9,560	£6,450	£4,360	£2,773	£6,160	£3,590
Other	£5,640	£4,200		£7,622	£4,733	£4,230	£7,542	£5,307	£5,890		£7,280	£5,340				£6,504
Other registrant	£4,120		£3,940	£5,661	£5,498	£4,200	£3,960	£4,576	£4,896	£10,360	£2,973	£4,660	£5,080	£3,680	£1,680	£2,460
Patient/Service User	£4,605	£6,840	£8,480	£4,968	£4,902	£6,180	£5,945	£5,826	£5,737	£6,480	£2,751	£5,317	£4,909	£2,522	£1,240	£6,402
Police				£440	£11,960	£3,926	£2,771	£5,580			£1,800					
Professional Body	£12,680	£5,440			£3,160		£4,620	£5,943	£7,320							£14,440
Public	£7,021	£3,683	£5,880	£5,200	£6,944	£5,317	£5,397	£5,522	£5,410		£4,453	£5,369	£8,173	£7,980		£2,997
Self referral	£4,140			£5,768	£6,190	£3,893	£6,386	£5,049	£6,346	£5,040	£6,260	£6,240		£1,080		£4,687



HIGH COST CASES (COST GREATER THAN £16,252)

**Table 27 - Average cost by profession of Registrant and location of the incident**

	Missing	Education	LA Establishment	NHS Hospital	Not During Work	Not known	Other	Other NHS Setting	Other Public Sector Place of Employment	Other private place of employment	Patients Home	Prison	Private Clinic	Private Hospital	Social Care Establishment
Arts Therapist							£53,954								
Biomedical Scientist				£51,373	£18,080										
Chiropodists / Podiatrist				£19,479			£23,559						£41,410		£37,469
Dietician				£54,483											
Hearing Aid Dispenser					£27,993	£40,706		£20,268		£51,972	£45,640		£30,096		
Occupational Therapist	£50,566		£68,551	£34,879	£25,784	£20,291	£23,998	£56,017							
Operating Department Practitioner				£38,240	£25,280		£35,455							£42,219	
Paramedic	£21,039			£24,434	£27,397	£31,044	£28,524	£34,837	£57,531		£41,317				
Physiotherapist				£38,920	£21,990	£29,926	£33,577	£29,166					£31,248		
Practitioner Psychologist				£21,755	£40,787	£40,254	£25,941	£33,429				£26,353	£21,852		
Radiographer		£38,736		£35,818	£23,920										
Social Worker	£36,778		£26,469		£25,266	£30,052	£26,687		£30,826		£22,194				£38,942
Speech and Language Therapist			£58,297	£39,663				£45,086							

HIGH COST CASES (COST GREATER THAN £16,252)

**Table 28 - Average cost by profession of Registrant and source of the complaint**

	Anonymous	Article 22(6)	Employer	Other	Other registrant	Patient/Service User	Police	Professional Body	Public	Self referral
Arts Therapist		£53,954								
Biomedical Scientist			£37,921							£32,202
Chiropodists / Podiatrist	£19,987		£19,479	£30,702		£41,410	£37,469			
Dietician			£54,483							
Hearing Aid Dispenser			£38,741			£45,640				£27,993
Occupational Therapist		£50,566	£54,694							£26,516
Operating Department Practitioner			£39,189	£33,716						£43,110
Paramedic	£26,981		£34,941	£32,218					£16,443	£28,711
Physiotherapist			£35,264	£28,196	£22,360	£31,248				£28,094
Practitioner Psychologist	£16,802		£30,511	£40,254		£33,364			£26,463	
Radiographer			£35,487	£38,736		£38,462				£23,920
Social Worker			£29,858	£27,010	£23,687	£18,737	£17,274	£43,723	£29,743	£27,944
Speech and Language Therapist			£47,692						£58,297	£34,450



HIGH COST CASES (COST GREATER THAN £16,252)

**Table 29 - Average cost by source of complaint and location of incident**

	Missing	Education Establishment	LA Establishment	NHS Hospital	Not During Work	Not known	Other	Other NHS Setting	Other Public Sector Place of Employment	Other private place of employment	Patients Home	Prison	Private Clinic	Private Hospital	Social Care Establishment
Anonymous						£29,371	£23,705								£16,802
Article 22(6)	£50,566														
Employer			£30,815	£38,814	£25,710	£34,683	£28,182	£39,051	£44,178	£51,972	£37,170		£30,096	£42,219	£49,844
Other	£36,778	£38,736		£33,716		£29,416	£33,157	£28,376			£26,549				
Other registrant				£22,360		£23,687									
Patient/Service User			£18,463	£38,462	£40,787	£17,700	£20,564				£26,867		£36,329		£20,200
Police					£17,274										£37,469
Professional Body															£43,723
Public			£58,297		£22,169	£25,191	£31,433					£26,354	£26,902		
Self referral	£21,039		£25,319	£38,716	£23,372	£29,564	£33,877	£31,500			£32,823				

**Table 30 – Model of Cost per case in HCPC (Regression)**

	<b>Coefficient</b>	<b>Std. Err.</b>	<b>z</b>	<b>P&gt;z</b>	<b>[95% Conf. Interval]</b>	
<b>Age</b>						
21-30	-465.75	1098.54	-0.42	0.67	-2620.10	1688.61
31-40	-17.28	888.12	-0.02	0.98	-1758.98	1724.42
41-50	188.60	822.41	0.23	0.82	-1424.24	1801.44
51-60	225.28	837.21	0.27	0.79	-1416.59	1867.14
<b>Gender</b>						
Male	362.50	475.92	0.76	0.45	-570.83	1295.84
Missing	-16605.60	6879.84	-2.41	0.02	-30097.73	-3113.47
<b>Profession</b>						
Arts Therapist	2267.49	3726.54	0.61	0.54	-5040.67	9575.66
Biomedical Scientist	-23.98	1742.49	-0.01	0.99	-3441.20	3393.23
Chiropodists / Podiatrist	421.88	1397.50	0.30	0.76	-2318.78	3162.54
Clinical Scientist	37.34	3030.83	0.01	0.99	-5906.45	5981.13
Dietician	2383.73	2530.69	0.94	0.35	-2579.24	7346.69
Hearing Aid Dispenser	6881.25	1886.11	3.65	0.00	3182.38	10580.13
Occupational Therapist	2047.72	1347.46	1.52	0.13	-594.79	4690.23
Operating Department Practitioner	10373.64	1407.70	7.37	0.00	7612.99	13134.30
Orthoptist	1073.88	5613.33	0.19	0.85	-9934.48	12082.24
Paramedic	1013.49	1086.01	0.93	0.35	-1116.30	3143.27
Practitioner Psychologist	-355.07	1123.93	-0.32	0.75	-2559.23	1849.09
Prosthetist / Orthotist	-951.68	9726.89	-0.10	0.92	-20027.20	18123.83
Radiographer	130.68	1478.27	0.09	0.93	-2768.36	3029.73
Social Worker	515.88	977.19	0.53	0.60	-1400.50	2432.25
Speech and Language Therapist	2386.27	2025.95	1.18	0.24	-1586.83	6359.38
<b>Location of Offence</b>						
Missing	418.04	1733.34	0.24	0.81	-2981.24	3817.32
Education Establishment	471.98	1922.09	0.25	0.81	-3297.46	4241.41
Expert witness	2817.26	3341.99	0.84	0.40	-3736.76	9371.28
Local Authority	1032.89	1023.35	1.01	0.31	-974.02	3039.80
NHS Hospital	4557.18	1140.85	3.99	0.00	2319.84	6794.51
Not known	2828.48	938.07	3.02	0.00	988.82	4668.13
Other	1019.85	881.71	1.16	0.25	-709.28	2748.98
Other NHS Setting	4739.02	1122.76	4.22	0.00	2537.15	6940.88
Other Public Sector	3645.45	2783.09	1.31	0.19	-1812.50	9103.40
Other private place	564.14	1968.86	0.29	0.77	-3297.00	4425.29
Patients Home	949.72	1216.22	0.78	0.44	-1435.43	3334.87
Prison	2039.64	2089.64	0.98	0.33	-2058.37	6137.64
Private Clinic	-1944.65	1555.40	-1.25	0.21	-4994.96	1105.67
Private Hospital	5356.54	2291.13	2.34	0.02	863.38	9849.69
Social Care Estate	2617.42	1141.36	2.29	0.02	379.10	4855.75

**Table 30 – Model of Cost per case in HCPC (Regression) (continued)**

	<b>Coefficient</b>	<b>Std. Err.</b>	<b>z</b>	<b>P&gt;z</b>	<b>[95% Conf. Interval]</b>	
<b>Grounds for Complaint</b>						
Barring Decision	-556.57	9620.33	-0.06	0.95	-19423.09	18309.96
Caution	4091.56	2153.29	1.90	0.06	-131.28	8314.40
Conviction	5170.62	1194.50	4.33	0.00	2828.07	7513.17
Determination by	2302.77	6795.37	0.34	0.74	-11023.70	15629.23
Health	1505.52	2507.13	0.60	0.55	-3411.24	6422.28
Incorrect/Fraudulence	4140.95	5739.73	0.72	0.47	-7115.30	15397.21
Lack of Competence	10020.46	894.05	11.21	0.00	8267.13	11773.78
Misconduct	7879.71	540.63	14.58	0.00	6819.49	8939.94
<b>Source of Complaint</b>						
Missing	-11089.40	9752.36	-1.14	0.26	-30214.86	8036.06
Anonymous	-698.69	1318.17	-0.53	0.60	-3283.78	1886.39
Article 22(6)	924.90	2219.27	0.42	0.68	-3427.34	5277.14
Employer	5366.58	691.71	7.76	0.00	4010.05	6723.11
Other	646.47	1034.06	0.63	0.53	-1381.43	2674.38
Other registrant	-2088.95	1018.40	-2.05	0.04	-4086.15	-91.75
Police	2831.44	1698.00	1.67	0.10	-498.52	6161.41
Professional Body	-742.20	2330.37	-0.32	0.75	-5312.32	3827.92
Public	-1058.64	691.96	-1.53	0.13	-2415.65	298.36
Self referral	-272.97	786.88	-0.35	0.73	-1816.14	1270.19
Constant	2316.44	1510.38	1.53	0.13	-645.59	5278.47

Number of obs = 2125

F( 54, 2070) = 18.35

Prob > F = 0.0000

R-squared = 0.3238

Adj R-squared = 0.3061

These coefficients show the difference between the specific characteristic and a registrant who is 60+ years old, female, a physiotherapist, offence committed not at work, grounds undetermined and reported by a patient/service user.

## Effect of Registrant Representation on Cost

**Table 31 – Effect of Registrant Representation on Cost per case in HCPC (Regression)**

	Coefficient	Std. Err.	z	P>z	[95% Conf. Interval]	
Represented self	1651.67	3401.77	0.49	0.63	-5052.38	8355.73
Had representation	1020.81	2528.43	0.40	0.69	-3962.12	6003.73
Constant	31449.00	1371.93	22.92	0.00	28745.26	34152.74

Number of obs = 224

F( 2, 221) = 0.16

Prob > F = 0.8486

R-squared = 0.0015

Adj R-squared = -0.0076

Root MSE = 16175

These coefficients show the difference between the specific characteristic and a registrant who had no representation.

**Table 32 – Effect of Registrant Representation on Cost per case in HCPC (Regression with additional control variables)**

	Coefficient	Std. Err.	z	P>z	[95% Conf. Interval]	
Represented Self	157.35	3275.31	0.05	0.96	-6299.52	6614.23
Had representation	520.79	2517.09	0.21	0.84	-4441.36	5482.94
Arts Therapist	34556.89	15212.33	2.27	0.02	4567.62	64546.17
Biomedical Scientist	21691.70	7497.10	2.89	0.00	6912.08	36471.32
Chiropodists / Podiatrist	10263.80	5484.29	1.87	0.06	-547.81	21075.41
Dietician	35194.75	9137.90	3.85	0.00	17180.49	53209.01
Hearing Aid Dispenser	21835.46	6029.20	3.62	0.00	9949.63	33721.30
Occupational Therapist	19812.86	5528.77	3.58	0.00	8913.57	30712.15
Operating Department Practitioner	19009.28	3877.38	4.90	0.00	11365.49	26653.06
Paramedic	14147.56	3952.98	3.58	0.00	6354.74	21940.37
Practitioner Psychologist	11616.26	7392.61	1.57	0.12	-2957.36	26189.89
Radiographer	8651.04	4972.48	1.74	0.08	-1151.60	18453.68
Social Worker	5881.14	3863.05	1.52	0.13	-1734.39	13496.67
Speech and Language Therapist	12222.04	9218.47	1.33	0.19	-5951.06	30395.15
Constant	19396.81	3340.27	5.81	0.00	12811.88	25981.74

Number of obs = 224

F( 14, 209) = 3.85

Prob > F = 0.0000

R-squared = 0.2050

Adj R-squared = 0.1518

Root MSE = 14841

These coefficients show the difference between the specific profession and a registrant who is either a clinical scientist, prosthetist/orthotist, orthoptist or physiotherapist.

## Impact of Profession on Cost per case

**Table 33 – Effect of Profession-specific Variables on Cost per Case in HCPC (Regression)**

	Coefficient	Std. Err.	z	P>z	[95% Conf. Interval]	
Arts Therapist	2917.92	4218.15	0.69	0.49	-5354.25	11190.09
Biomedical Scientist	1054.77	1860.03	0.57	0.57	-2592.91	4702.46
Chiropodists / Podiatrist	-64.50	1550.35	-0.04	0.97	-3104.88	2975.88
Clinical Scientist	-2303.13	3408.91	-0.68	0.50	-8988.31	4382.04
Dietician	4539.71	2794.36	1.62	0.10	-940.28	10019.70
Hearing Aid Dispenser	6346.01	2029.73	3.13	0.00	2365.53	10326.48
Occupational Therapist	2542.76	1472.94	1.73	0.08	-345.82	5431.33
Operating Department Practitioner	15046.47	1478.20	10.18	0.00	12147.59	17945.36
Orthoptist	-5799.04	6357.99	-0.91	0.36	-18267.62	6669.54
Paramedic	2531.46	1088.57	2.33	0.02	396.67	4666.24
Practitioner Psychologist	-2360.94	1162.84	-2.03	0.04	-4641.38	-80.51
Prosthetist / Orthotist	-6279.04	10937.70	-0.57	0.57	-27728.84	15170.76
Radiographer	2469.62	1610.20	1.53	0.13	-688.13	5627.37
Social Worker	-1233.35	970.64	-1.27	0.20	-3136.87	670.17
Speech and Language Therapist	2136.33	2217.30	0.96	0.34	-2212.00	6484.66
Constant	8759.04	905.21	9.68	0.00	6983.84	10534.24

Number of obs = 2127  
 F( 15, 2111) = 15.18  
 Prob > F = 0.0000  
 R-squared = 0.0974  
 Adj R-squared = 0.0910  
 Root MSE = 10900

These coefficients show the difference between the specific profession and a registrant who is a physiotherapist.

### Testing that all profession parameters are equal to zero (in model from table 33)

H:0 – All profession-specific coefficients are equal to 0  
 H:1 – Not all profession-specific coefficients are equal to 0

F( 15, 2111) = 15.18      Prob = 0.0000

As Prob = 0, we reject H:0 and can say that not all profession-specific coefficients are equal to 0.

### Testing that all profession parameters are equal to zero (in model from table 30)

F( 15, 2070) = 5.92      Prob = 0.0000

As Prob = 0, we reject H:0 and can say that not all profession-specific coefficients are equal