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Management Service



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Report - RS01LN

Assessing the Link between Qualifications & Occupations

Identifying if certain types of qualification have
led to certain types of employment, during the
NOMS CFO programme in London

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Overview

This is the first in a series of short statistical reports aimed at better understanding the nature of the participants worked with on the NOMS Co-financing programme, and the mechanisms that help move them towards employment and reduce reoffending. For more information on this report, please contact the Research & Statistics team via the CFO Helpdesk.

Data presented in this report is taken from CATS (Case Assessment & Tracking System), for the second round of the CFO programme through to October 2013. Analysis is restricted to those participants that started on the programme in London, attaining at least one qualification (including education/training hard outcomes) and went on to gain employment with a known occupation.

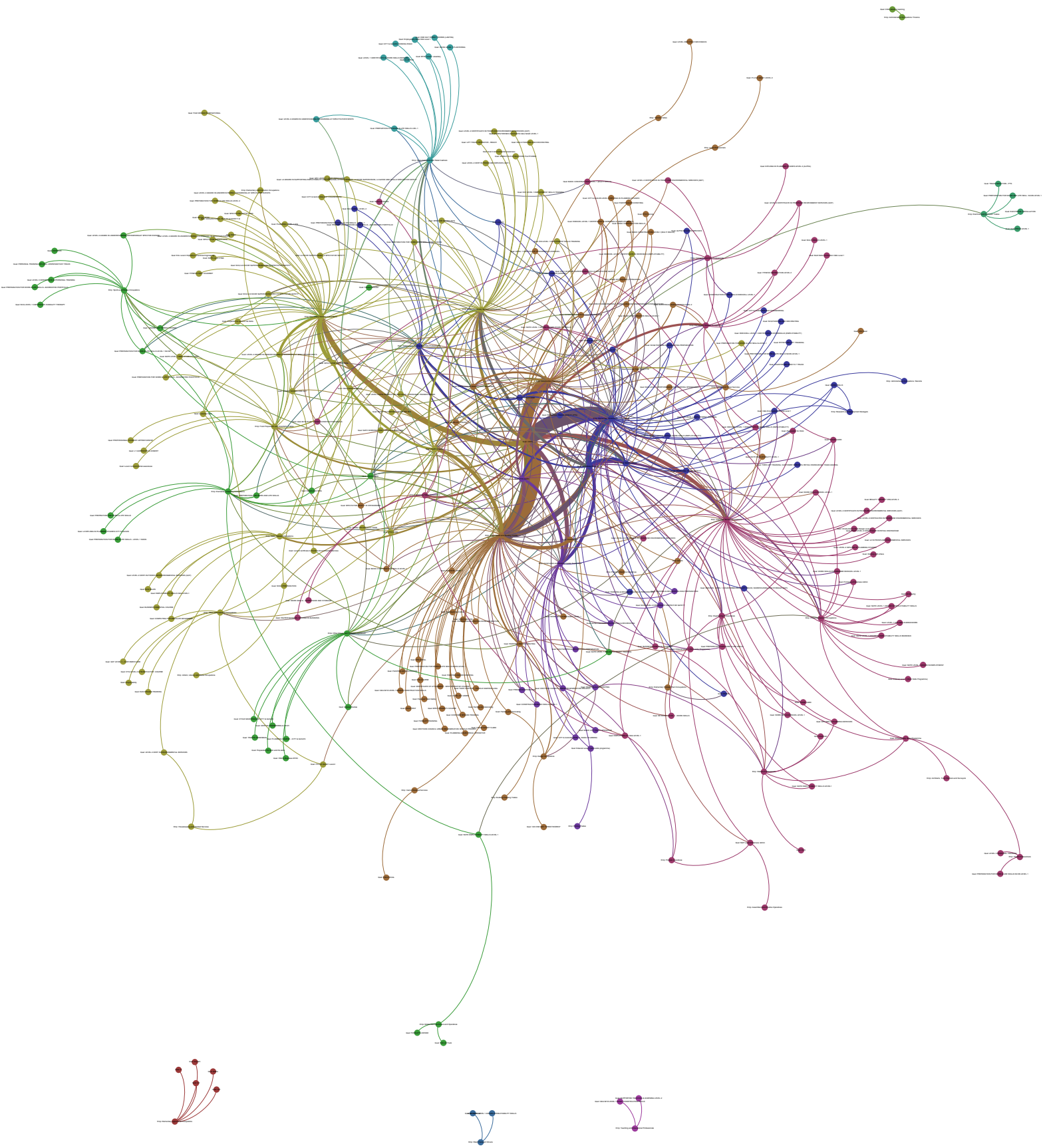
The aim of this report is to identify links between the subject nature of qualifications achieved and the occupations that have been entered. For example, we may expect that those who gained qualifications relating to health & safety to go into higher risk occupations such as construction. In contrast, we may not expect a participant who has achieved qualifications in hair & beauty to go on to gain employment in engineering. Here we use statistical analysis to identify '*clusters*' of qualifications and occupations. The qualifications in a given *cluster* are likely to lead to the occupations also assigned to that *cluster*, and less likely to lead to the occupations found in other *clusters*. This report highlights such *clusters* and describes in more detail the most prevalent *clusters*.

By studying the identified clusters of qualifications and occupations, we gain insight into how certain qualifications lead to particular occupations. We are also able to identify qualifications that may be seen as irrelevant to the type of employment gained. This judgement however is subjective and left to the reader to determine.

Results

On the next page can be found an interactive high-resolution map of the links between qualifications and occupations. This map has been made 'zoomable', so that the detail can be seen as you zoom in while capturing the entire map on a single page. Each labelled marker represents either a qualification or occupation as entered on CATS. The thicker the link between them, the more participants have achieved both that qualification and occupation. Finally, the map is colour-coded to show the different clusters found. All of the qualifications and occupations with the same colour marker have been statistically determined to have a relationship between them.

*Qualifications are presented as they are entered on CATS. As such, several spelling variations of the same qualification may be seen in the map overleaf. The decision not to 'merge' the same or similar qualifications into a standardised 'label' was both a practical and analytical one, ensuring we capture as much information about the mechanisms as possible.



Identified qualification/occupation clusters

Below are the five most prevalent qualification/occupation clusters identified in this analysis. Each table relates to a specific cluster, detailing the occupations and qualifications it contains. For brevity, these tables are limited to the top 10 most commonly claimed outcomes where applicable. Please note that the figures in these tables are the number of participants that have achieved that qualification/occupation, and is limited to those participants who have been included in this analysis - participants who have gained both at least one qualification and employment with a known occupation. Percentages in each table will not necessarily sum to 100%.

Finally, consideration should be given to the limitations of the data below. Many occupations and qualifications are only achieved by a very small number of participants (often only a single individual). For example, looking at the first cluster (Construction (i)) only three participants gained Erect & Dismantle. Although we can be confident that these individuals belong to this cluster in this instance, it should not be inferred that Erect & Dismantle always leads to the types of occupations in this cluster. As the number of participants gaining an occupation/qualification increases, the more confident we can be that the occupation/qualification belongs to the cluster.

Cluster Description:			A: Construction (i)*				
Occupations (Top 10)		No.	%	Qualifications (Top 10)		No.	%
Construction and Building Trades	190	57%	CSCS	269	61%		
Construction Operatives	103	31%	Painting & Decorating	37	8%		
Design Occupations	9	3%	Construction	32	7%		
Conservation and Environment	8	2%	PTS	28	6%		
Leisure and Travel Services	8	2%	Railway Engineering	17	4%		
Elementary Process Plant Occupations	5	2%	Workskills	14	3%		
Caring Personal Services	2	1%	Electrical	8	2%		
Legal Professionals	2	1%	FLT	6	1%		
Vehicle Trades	2	1%	P.A.S.E	4	1%		
Building Finishing Trades	1	0%	Erect & Dismantle	3	1%		

Cluster Description:			B: Construction (ii)*				
Occupations (Top 10)		No.	%	Qualifications (Top 10)		No.	%
Elementary Construction Occupations	149	63%	Railway Engineering	103	46%		
Other Skilled Trades	46	19%	Workskills/Employability	47	21%		
Welfare and Housing Assoc. Professionals	38	16%	PTS	42	19%		
Research and Development Managers	3	1%	FLT	6	3%		
Administrative Occupations: Records	1	0%	Painting & Decorating	6	3%		
			LUCAS	5	2%		
			Street Works	5	2%		
			Construction	3	1%		
			Alpha Building Services	2	1%		
			PASMA	2	1%		

Cluster Description:			C: Security & Services				
Occupations (Top 10)		No.	%	Qualifications (Top 10)		No.	%
Elementary Security Occupations	84	39%	Stewarding/Spectator Safety	58	28%		
Elementary Services Occupations	74	34%	Health & Safety	52	25%		
Food Preparation and Hospitality	25	11%	Employment/Work/Life Skills	21	10%		
Sales Related Occupations	16	7%	Customer Service/Care	18	9%		
Other Administrative Occupations	11	5%	Environmental Services	9	4%		
Elementary Administration	3	1%	Street Works	7	3%		
Housekeeping and Related Services	2	1%	PTC Card	6	3%		
Textiles and Garments Trades	2	1%	P.A.S.E	4	2%		
Artistic, Literary and Media	1	0%	Personal Trainer	3	1%		
			Railway Engineering	2	1%		

Cluster Description:			D: Customer Service				
Occupations (Top 10)		No.	%	Qualifications (Top 10)		No.	%
Customer Service Occupations	65	40%	Employability/Work Skills	52	46%		
Protective Service Occupations	20	12%	Environmental Services	12	11%		
Elementary Storage Occupations	18	11%	Business Essentials/Admin	10	9%		
Elementary Sales Occupations	15	9%	Construction	9	8%		
Engineering Professionals	15	9%	LUCAS Card	4	4%		
Welfare Professionals	11	7%	Bricklaying	4	4%		
Transport Associate Professionals	10	6%	Plumbing	4	4%		
Health Professionals	3	2%	Electrical	3	3%		
Process Operatives	3	2%	Fitness Instruction	3	3%		
Architects, Town Planners, Surveyors	1	1%	Door Supervision	2	2%		

Cluster Description:			E: Construction (iii)*				
Occupations (Top 10)		No.	%	Qualifications (Top 10)		No.	%
Construction and Building Trades	66	99%	PTS	53	58%		
Printing Trades	1	1%	Painting & Decorating	19	21%		
			Urban Regeneration Project	8	9%		
			Work Skills	4	4%		
			Construction	2	2%		
			Inspector Safety	2	2%		
			Preparation/Finishing	2	2%		
			FLT	1	1%		
			Plumbing	1	1%		

*There are three clusters here that all appear to lead to construction and building trade type occupations. These three clusters have been determined as distinct from each other statistically, and we can see subtle variation between them. A large proportion of Participants in Construction (i) received CSCS while a similar proportion in Construction (iii) gained PTS training. In contrast, those in Construction (ii) largely undertook Railway Engineering and Work Skills, leading to Elementary Construction occupations.

Describing the nature of participants found within each qualification/occupation cluster

The table below details the demographic and assessment characteristics of the participants found in each of the five qualification/occupation clusters presented previously.

Factor	Construction (i)	Construction (ii)	Security & Services	Customer Service	Construction (iii)
Demo: % Aged 50 or over	3.5%	2.8%	3.8%	8.4%	3.2%
Demo: % Aged Under 21	10.6%	5.6%	14.3%	9.8%	4.5%
Demo: % BAME	56.6%	77.1%	71.4%	67.6%	71.6%
Demo: % Custody Starts	5.7%	8.9%	3.8%	4.4%	3.9%
Demo: % Female	0.5%	0.4%	8.4%	4.0%	0.0%
Assess: % Alcohol Need	14.5%	11.7%	16.7%	16.7%	5.8%
Assess: % Attitude & Life Skills Need	75.2%	81.2%	73.5%	77.1%	69.7%
Assess: % Drugs Need	29.5%	25.1%	21.7%	34.9%	31.0%
Assess: % Education Need	91.5%	86.6%	84.2%	84.4%	92.3%
Assess: % Financial Status Need	30.2%	29.9%	19.1%	23.6%	23.9%
Assess: % Health Need	17.5%	11.0%	17.4%	13.5%	11.0%
Assess: % Housing Need	31.1%	22.1%	29.8%	28.4%	25.2%
Assess: % Relationships Need	20.8%	14.9%	14.3%	14.5%	23.9%
Assess: % Low Motivation on Starting	16.1%	24.5%	18.4%	17.1%	2.6%
Total Participants in Cluster	739	462	419	275	155

Here we can see that the profile of the participants within each cluster varies somewhat. For example, the 'Security & Services' cluster contains a higher proportion of both young people and women than the other clusters.