



Benefits of Developing Vocational Excellence

A Report to the National Apprenticeship Service of Project 3 of the DUVE suite of projects

DuVE

Developing and understanding vocational excellence

September 2013

Professor Ken Mayhew, SKOPE, University of Oxford

Dr Susan James, SKOPE, University of Oxford

Dr Maia Chankeliani, SKOPE, University of Oxford

Dr Andrea Laczik, Centre for Education and Industry, University of Warwick

Summary

The National Apprenticeship Service (NAS) champions apprenticeships throughout England. It works to foster partnerships with industry and education organisations to identify, develop and train, and support vocational talent through skills competitions. WorldSkills UK, housed within NAS, manages the local, regional and national competitions and the Squad UK in preparation for WorldSkills Competitions (WSC). NAS commissioned a suite of three projects, carried out by SKOPE, under the banner, *Developing and Understanding Vocational Excellence (DUVE)*. The purpose of these projects is to better understand how participation in WSC, through WorldSkills UK, contributes to NAS's aim of promoting skills development and improving the skills base in the UK. Project 1 focuses on the characteristics of the young people in the WorldSkills UK programme in order to understand better the natural abilities, individual characteristics and external conditions that contribute to, and are most associated with, the development of vocational excellence and top-level competitive performance. Project 2 concentrates on the learning environment within the work environment of the young people chosen to be part of squad UK in order to better understand the role of the workplace in developing vocational excellence. This report is from the third project. The motivation behind this project was to understand the broader benefits of skills competitions beyond those accruing to WorldSkills competitors themselves.

The results presented in this report are based on 110 individual semi-structured interviews with various stakeholders. We interviewed 39 competitors and their 71 associates. The associates included 20 employers, 25 family members/friends, 14 college tutors, seven training managers and five professionals who acted as college tutors and also training managers. The results are not necessarily representative of all stakeholders, but are suggestive of the array of benefits that WSC participation can produce. The main beneficiaries of WorldSkills Competitions are the competitors themselves. Access to training resulted in greater technical skill development. The majority of competitors also reported enhanced development of communication skills and time management capabilities, of self-reflection and confidence. Career development and progression opportunities, particularly self-employment and the possibility to pass on their knowledge and skills, were also identified as important benefits of participating in WSC.

For employers and industry, the main benefits of supporting the WSC related to publicity and enhanced prestige, improved performance by the employee (competitor), employer satisfaction from being committed to skills development, teamwork-related benefits, the introduction of new techniques/products, more clients, improved recruitment, a better industry profile and improved industry standards.

For FE tutors (CTs) and colleges, the main benefits of involvement in the WSC related to enhanced reputation, attracting more students, positive influences on other college students, and better standards of teaching and learning.

For training managers (TMs), the main benefits were related to professional satisfaction, career progression, increased awareness of the latest developments in industry, refinement of teaching or training skills, and learning from international exchanges.

Beyond individual groups of stakeholders, the evidence points to four overarching benefits for the vocational education and training (VET) system. Skills competitions:

- presented an opportunity for young people to learn about a variety of vocations;
- helped create an understanding that acquiring vocational skills can lead to promising careers;
- provided an opportunity for young people to see the level of excellence and success that can be achieved in vocational professions, and they can gain confidence in reaching similar success; and
- helped improve the profile of selected industries and FE colleges, and have the potential to attract more talent to vocational education and apprenticeships.

Our evidence yields several issues for the National Apprenticeship Service to consider:

1. Better publicise the WSC, as well as skills competitions in general, to capture a wider audience. This should be a sustained effort, not just around scheduled competitions;
2. The continuing involvement of FE colleges often rests on the goodwill of tutors. Examine whether direct incentives to participating might widen the circle of colleges involved;
3. Adjusting to life post-WSC is not a straight forward process and competitors could be better supported upon returning from the WSC;

4. Consider ways for employers to be more actively engaged during the WS competitors' training both in their own workplace but also during the competitors' off-site training. In this way communication between employers and TMs could be improved;
5. Improve the lines of communication between competitors and TMs by setting clearer expectations of both parties in their WorldSkills UK training;
6. Highlight the experience of female competitors in male-dominated fields to help promote female participation and interest in those fields;
7. Use positive employer experiences as a marketing tool to increase employer involvement across skill areas;
8. Selection procedures for skills competitions could be improved by (a) opening up to more young people and (b) making more time available for training leading up to the WSC;
9. Financial incentives for TMs need to be revisited to widen the pool of potential candidates; and
10. Larger companies may be benefitting from supporting WorldSkills competitors more than smaller ones as the costs of supporting a competitor may be higher for smaller firms. Incentives for smaller firms to participate need to be revisited.

Table of contents

Summary	2
Table of contents	5
Table of Figures and Annexes	7
List of Abbreviations	7
1. Introduction	8
Structure of the report	10
2. Approach and methods.....	10
2.1. Participants.....	10
2.2. Analysis.....	14
2.3. Limitations.....	14
3. What do we know about the benefits of skills competitions?	14
4. Beneficiaries of skills competitions.....	17
4.1. Benefits for competitors	17
Many competitors experienced economic benefits, but satisfaction was also important	18
Shorter term benefits	18
Longer-term benefits	18
Technical skills development was accelerated by training, which introduced new tools, techniques and standards not learned in school or work.....	20
Training and competition provided opportunities to develop social skills.....	23
Communication and public speaking improved	23
Time management skills are acquired	25
Self-reflection developed.....	26
WSC helped to develop confidence.....	27
Participation in the WSC benefited career development	28
Competitors' career progression benefited from WSC	28
Participation in the WSC had signalling benefits.....	30
Competitors' professional reputation improved.....	31
More extensive networking opportunities emerged	32
The WSC encouraged entrepreneurship	33
4.2. Benefits for FE tutors and colleges	34
Involvement in WSC enhanced college reputation.....	34
Standards of teaching and learning improved	36
WSC participation attracted more students.....	37

College involvement in the WSC had a positive influence on their students	38
4.3. Benefits for employers and industry	40
Employers enjoyed good publicity and higher prestige	40
Employers observed enhanced employee performance	41
Employers gained satisfaction from showing commitment to skills development	42
Companies reaped teamwork-related benefits	43
Competitors exposed their employers to new techniques or products	44
Some companies attracted more business clients	44
Some firms reported on improvements in recruitment	44
The WSC raised industry profiles	45
The WSC raised industry standards	48
4.4. Benefits for training managers	50
TMs received professional satisfaction	50
The WSC brought career benefits to TMs	51
TMs became more aware of the latest developments in industry	52
TMs' skills of teaching and training were refined	53
TMs learned from international exchanges	53
5. Wider potential benefit of skills competitions: making VET more attractive for youth	54
5.1. Skills competitions raised awareness about vocational professions	55
5.2. Skills competitions helped young people understand that the vocational route can lead to a professional career	55
5.3. Skills competitions inspired through examples of excellence and success	56
5.4. Skills competitions helped improve the profile of selected industries and FE colleges	57
5.5. Lack of publicity emerged as an impediment to full benefits	58
6. Recommendations	59
7. Acknowledgements	60
8. References	61

Table of Figures and Annexes

Figure 1. Apprenticeship experiences of interviewed competitors, by medal11

Figure 2. Seven main benefits for employers40

Annex 1. WS competitor interview schedule63

Annex 2. Interviewees66

List of Abbreviations

CT - College Tutor

FE - Further Education

MoE - Medallion of Excellence

MoVE - Modelling Vocational Excellence

NAS - National Apprentice Service

SKOPE - An Economic and Social Research Council research centre on Skills, Knowledge and
Organisational Performance

TM - Training Manager

TM/CT - a college tutor who is also a training manager

TM/UL - a university lecturer who is also a training manager

UL - University Lecturer

VET - Vocational Education and Training

WSA - WorldSkills Australia

WSC - WorldSkills Competition

WSI - WorldSkills International

1. Introduction

International skills competitions started in post-WWII Europe. In 1950 the first *Skill Olympics* were held between Portugal and Spain, involving 12 competitors. In 1953, five other European countries joined the international skills competition. This competition has evolved into a global contest known as the WorldSkills Competition (WSC). Currently, the competition involves young contestants from 53 countries, who gather every two years to compete publicly and demonstrate excellence in 46 skill areas.¹

The WSC is organised by WorldSkills International (WSI). WSI is a non-profit association that promotes vocational education and training internationally in traditional trades and crafts as well as in multi-skilled vocations² and those utilising newer technologies. The vision of the WSI is to create conditions where 'people can achieve the workplace skills they need to prosper and find fulfilment' (WSI, 2009). WSI uses cooperative action to promote worldwide awareness that high standards of competence are essential for professional and personal fulfilment (WSI, 2009), making important contributions to the economic and social well-being of individuals and communities.

The UK first entered a team in the WSC in 1953 and has hosted the competition twice; in Birmingham in 1989 and in London in 2011. After the 1989 WSC, UK Skills was founded in 1990 and renamed WorldSkills UK in 2011. UK Skills was set up as an independent charity with the aim of promoting world-class standards of vocational skills through competitions. Young people, mostly aged 18-22,³ compete in the skills competitions. They undergo a selection process that begins with numerous regional and national skill competitions held throughout the UK. Competitors for these UK-based competitions may be Further Education college students or apprentices or employees in enterprises that recognise the benefits of skills competitions. Competitors are also identified through the National Apprenticeship Awards, Awarding Bodies, City & Guilds Awards of Excellence, Sector and Industry Awards and through Sector Skills Councils. The short-listed candidates attend a residential induction

¹ There were 45 official skills and one demonstration skill at WorldSkills Leipzig 2013.

² For example, manufacturing team challenge.

³ The upper age limit to compete at a WSC is 22; the exception to this rule is for the skills areas of Information Network Cabling, Manufacturing Team Challenge, Mechatronics, and Aircraft Maintenance where the age limit is 25 years in the year of competition.

programme where three to four events may be held over a few months. Advancement from the shortlist to the squad involves a 'pressure test'. Candidates receive two weeks training, followed by a pressure test benchmarked to the WorldSkills International standards for facilities, test projects (often it is the test project from a previous WSI competition), marking schemes and rigour. After participating in a training programme over approximately six months (including further competitions) Team UK is selected from the squad members. Team selection is a four-day competition event replicating as much as possible the conditions of a WorldSkills Competition and is called The Skills Show held at the Birmingham NEC. After team selection the competitors continue with intensive skill development and training⁴ to build their skills to world-class standard.

The WSC is recognised by many as the pinnacle of excellence in vocational education and training (VET). These competitions provide both a benchmark for high-performance and an objective way to assess vocational excellence. They also provide an opportunity to better understand the factors that contribute to the development of vocational skills to a high standard and the benefits of developing vocational excellence.

This report, funded by the National Apprenticeship Service, focuses on understanding the wider benefits from participating in a WSC. Benefits can accrue to the individual competitor or to other individuals and organisations associated with competitors. Some benefits of participating in a skills competition may be fairly immediate whereas others may take some time to accumulate; benefits may be short- or long-lasting. It is in the nature of this research design that we can but speculate on how long-lasting they may be. An important motivator behind this project is the notion that skills competitions should and do produce gains beyond those experienced by the competitors. The competitor could benefit his/her employer by being more productive and by potentially increasing the productivity of other workers. Some competitors become self-employed and in the process create jobs and economic opportunities for others. Industries may see the benefits in terms of higher standards and improved profile. The colleges from which competitors come may benefit in a whole variety of ways from increased prestige to increased attractiveness and better teaching methods. The impact of competing may change not just the aspirations and

⁴ Some members of Team UK also compete in EuroSkills as part of their training: <http://www.euroskills.org>

attitudes of the contestants but also those of friends and family. There may also be wider societal benefits related to making vocational education and apprenticeships more attractive to young people and helping them choose the vocational route.

Structure of the report

This report is organised as follows. Section 2 provides details about the project, explains the methodology used and the participants involved in this qualitative study. Section 3 provides context for the findings through reviewing the literature currently available on skills competitions and their benefits. Section 4 identifies the benefits for the groups of stakeholders involved in WSC. Section 5 presents the overarching benefit of WSC to vocational education and training identifying how WSC can make VET more attractive for young people. Section 6 concludes with some recommendations.

2. Approach and methods

Much anecdotal evidence is available on the perceived benefits of WorldSkills Competitions. The purpose of this study is to examine systematically how and in what way skills competitions provide benefits to the stakeholders involved and potentially to the VET system and society more broadly. Participation in WSC involves a number of stakeholders. Some are directly engaged with the competitors through training, while others support the competitors and competitions financially or in kind. Those who are directly involved with the competitors are usually the training managers (TM), employers, college tutors (CT) / university lecturers (UL), and family members and friends. These key stakeholders work individually and jointly to support the competitors throughout their journey to develop vocational excellence and compete at the WSC. These stakeholders may offer significantly different support at various times given, for example, their own experiences, skills, networks and resources, and they take up different spheres in the competitors' lives. These groups of stakeholders experience considerably different benefits, which are discussed in section 4.

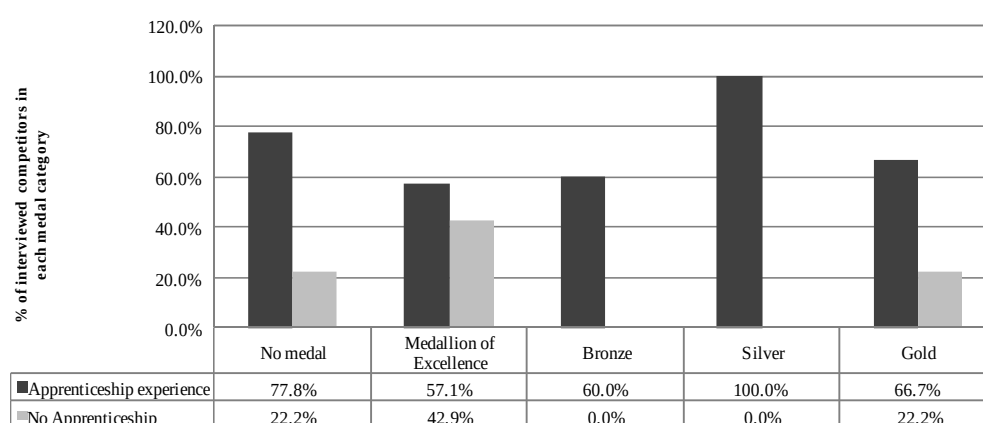
2.1. Participants

The results presented in this report are based on 110 individual semi-structured interviews with individual stakeholders. We interviewed 39 competitors and 71 associates. The associates included 20 employers, 25 family members/friends, 14 college tutors, seven

training managers and five professionals who acted as college tutors as well as training managers. To identify study participants, we used convenience sampling and snowballing. We contacted⁵ 79 of the 109 UK competitors who participated in the WSC from 2005- 2011, of which 39 agreed to take part in the study. From the 39 interviewed competitors, six competed in 2005, nine in 2007, ten in 2009, and 14 in 2011. The second phase of the project (2013-2015), will include 2013 competitors and their associates.

Among the interviewed competitors, nine were gold medallists, one silver medallist, four bronze medallists and sixteen were awarded a Medallion of Excellence.⁶ The remaining nine competitors won neither a medal nor a medallion. Of the interviewed competitors 18% were female. Overall, 62% percent of the interviewed competitors were apprentices. Figure 1 illustrates the medal breakdown between apprenticeship experience and non-apprenticeship.

Figure 1. Apprenticeship experiences of interviewed competitors, by medal



Note: Data is missing on apprenticeship experiences of four competitors.

We used semi-structured interview schedules, and prepared separate schedules with slightly different foci for competitors, their employers, college tutors, and family members/friends. We conducted the interview with the competitor first. During the interviews we asked competitors to nominate a family member or friend and to give us the

⁵ We contacted participants via email or telephone in the first instance depending on the available information. We became aware that some of this information was out-of-date and therefore the competitor may not have received our request to participate.

⁶ Medallions of Excellence are awarded to competitors who achieve 500 points or more.

details of the employer, their FE tutor and their training manager.⁷ Annex 1 provides the interview schedule used for the competitors. On average, face-to-face interviews with competitors lasted for an hour and telephone interviews with their associates lasted for approximately 45 minutes. Interviews with competitors were preceded by a telephone conversation or an email communication to introduce the research study. Prior to the interview, we asked competitors to fill out a background information sheet to obtain the data on their age, contact details, employment history, qualifications and their involvement in skills competitions. All interviews were recorded and fully transcribed. The interviewed competitors represented the following skills categories and current occupations:

Skills category	Current Occupation
Autobody repair	Partner in family business
Automotive technology	Workshop supervisor
Beauty therapy	Beauty therapy assessor and beauty therapist
Bricklaying (2)	Bricklayer (2)
Cabinet making (2)	Furniture maker (2)
Car painting	Senior paint technician
Car painting	Composite paint technician
Carpentry (2)	Carpenter (2)
Confectioner/pastry cook	Pastry chef consultant
Confectioner/pastry cook	Confectioner/chocolatier
Cooking	Premier sous chef
Cooking	Chef de partie
Cooking (2)	Head chef (2)
Electrical Installations	Director
Electrical Installations	Approved electrician
Floristry	Florist owner
Graphic design technology	Graphic designer
Jewellery	Diamond mounter
Landscape gardening	Landscape gardener
Landscape gardening	Landscape gardener
Manufacturing team challenge	Systems engineer
Mechanical engineering CAD	Project manager
Mobile robotics	Graduate electronics development engineer
Painting and decorating	Company director
Painting and decorating	Painter and decorator
Pastry chef/ confectionary	Head chocolatier
Plumbing	College lecturer
Plumbing and heating	Mechanical supervisor

⁷ As we interviewed only a portion of competitors from each year group, NAS helped us to gain access to other TMs from previous years. NAS sent an email to the TMs asking them to contact the research team. One TM contacted us to be included in this study.

Restaurant service	Headwaiter
Restaurant service	Assistant restaurant manager
Stonemasonry (3)	Stonemason (3)
Visual merchandising	Visual consultant
Welding	Welder

The study participants differed in their employment status. More than half of the competitors worked with the same employer from their time of the WorldSkills Competition. The rest were either self-employed (24%) or worked for a different employer (24%).

The interviewed employers (N=20) form two groups. The largest group (63% of our sample) was comprised of those employing the competitor at the time of the interview. The second group consisted of former employers. This group included those whom the competitor left for self-employment (21% of our sample) and those whom the competitor left for another employer following their participation in the WSC (16% of our sample).

Of the 19 interviewed college tutors/lecturers, five also acted as a training manager (TM). Overall, we interviewed 12 WorldSkills training managers. The years of service among the interviewed training managers ranged from two years to 26 years, with an average of nine years. Seven of them were still training managers for WorldSkills UK at the time of the interview.

Of the 25 family members interviewed, the majority were WS competitors' parents. The sample also included spouses, one friend and one sibling. The relationship of the competitor to the other interviewees is reported in Annex 2, which also gives some information on the training managers.

We followed the guidelines of the British Educational Research Association (BERA, 2011), and ethical considerations related to participant confidentiality and informed consent. We made sure that every participant understood the research project, why their participation was important, how the data would be used and to whom it would be reported. We obtained informed consent from each participant prior to audio-recording his or her interviews. Following conditions of confidentiality, none of the participants are named in the report, and we have made necessary precautions to avoid identification of individuals. When quoting the study participants, we specify their role in relation to the WSCs and their

year of participation. We do not provide the year of participation when we refer to medallists or when quotes specify competitors' skill category as this would make them too easily identifiable. We also use this approach for the TMs and CTs.

2.2. Analysis

The interview data were analysed in several stages. The audio-recorded interview data were first transcribed. Using NVivo software, narratives were broken down into the three main benefit categories: economic, educational and social. NVivo classifications option was used to put together demographic and educational information on each of the interviewed competitor. Then we systematically categorised the interview texts in relation to each main theme, and summarised findings by interviewee and theme.

2.3. Limitations

There are two important study limitations. First, the study relies on self-report. Second, the study gathers data from a small number of competitors and their associates. The findings cannot necessarily be generalised to the population of WorldSkills UK competitors or to WSC competitors in general.

3. What do we know about the benefits of skills competitions?

Although WSI has a history of promoting and staging competitions and the European Commission policy encourages skills competitions as a way to enhance the image of vocational education (e.g. Bruges Communiqué, 2010), there is little research on this topic.⁸

The literature that is available is relatively recent (Berry-Lound et al., 2012; James and Holmes, 2012) and none of the main studies looked specifically at the wider benefits of skills competitions. Research in the UK suggests that skills competitions promote expertise and proficiency in acquisition of skills, and improve learning and teaching in the field of vocational education and training (Helakorpi, 2010; Hughes et al., 2004; Wilson, 2000). There is some evidence that the WorldSkills Competition develops not only vocational competence but also encourages excellence (Nokelainen, 2012; Smith and Rahimi, 2011a).

⁸ Major international reports in the area of VET/skills development for young people, such as UNESCO 2012 Global Monitoring Report on Youth and Skills: Putting Education to Work (UNESCO, 2012), OECD 2010 Learning for Jobs Report (OECD, 2010), World Development Report on Jobs (World Bank, 2013), do not mention skills competitions at all.

The project of Hughes et al. (2004) on the development of a curriculum for excellence, funded by the UK Skills and Learning and Skills Development Agency, involved seven colleges. The authors argued that ‘skills competitions are competitions with a difference,’ as they facilitate the development of different technical skills together with social skills like communication, teamwork, and business skills (Hughes et al., 2004, p. 22). SKOPE conducted research into the learning environment within the work environments of the UK squad members in 2007 (UKSkills, 2009). This research was extended to the 2009 squad, and the results showed that more expansive work environments, combined with the opportunities to experience a variety of situations and work processes to solve complex problems and make decisions, were associated with selection to the team. Characteristics of the work environment, however, were not related to medal winning performance (James and Holmes, 2012). In 2011, the UK squads for WSC were the focus of a study on the individual characteristics associated with competition success (Nokelainen et al., 2013). Overall, the findings suggest that the most important contributors to winning medals at WSC London 2011 were motivational in nature. Medal winners were not driven by the desire to compete, but they still wanted to be perceived as being ‘number one’ in their field. They appear to be partly motivated by not wanting to appear incompetent to others. This research is continuing for the 2013 and 2015 squads.

Outside the UK, a WorldSkills–sponsored study called MoVE (Modelling Vocational Excellence) International, surveyed 413 competitors and 165 experts from 38 WorldSkills member countries who participated in WSC 2011 to look at the factors that promote high-quality vocational skills and to examine the impact of the WSC on skills and professional identity development. The research found that competitors were motivated mostly by challenge mixed with the desire to succeed and the desire to learn, while experts were motivated by the opportunity to build their professional skills and to see young people performing at their best. Interestingly, both competitors and experts reported a passion for the work, enjoyed learning and liked working with new technologies. Both groups shared similar ideas about what made their trades or professions attractive. Fifty-two percent of WSC 2011 competitors thought WorldSkills would be significant to their future careers and 25% considered this experience essential (Nokelainen et al., 2012).

The MoVE International and UK-based studies stem from research undertaken by Petri Nokelainen at the Research Centre for Vocational Education at the University of Tampere, Finland (Nokelainen and Ruohotie, 2009). The results showed that the most important characteristics of successful competitors were: self-reflection, volition,⁹ cognitive skills, motivation and social skills. Volitional characteristics were considered to be the most important in all three skill development stages (initial interest, perseverance, mastery). Further, support received from institutions and trainers was considered to be important throughout the three skill development stages. The role of encouraging teachers was vital in the early stages of skill development.

In 2010, skills competitions were studied in the Australian context based on Nokelainen's research. MoVE Australia involved the collection of data using an online questionnaire from competitors and judges during the WorldSkills Australia National Competition in Brisbane in May 2010. Employers of the competitors were also asked to complete the questionnaire. The data were collected from 254 of the 478 competitors, 123 judges and skill category experts, and 16 employers. The study found that 78% of competitors expected that participation in the WSC would bring significant career benefits to them and that almost 66% of the competitors considered skill enhancement as a benefit of participating in WSC. Competitors (27%) thought that participation in WSC provided an important opportunity to try to 'gauge your performance against others and against accredited standards', to get recognised by others. Some participants viewed WSC as 'an opportunity of a lifetime, and in saying that it secures your job for life' (Smith and Rahimi, 2011b).

In so far as this body of literature extends our knowledge of WorldSkills Competitions, it only very partially explores the potential benefits to be gained from involvement in competitions. The next section provides an in-depth discussion of the beneficiaries of skills competitions and the benefits accrued.

⁹ Volition brings together exactness, ability to concentrate, determination, perseverance, time management skills (Nokelainen and Ruohotie, 2009)(Nokelainen, 2012).

4. Beneficiaries of skills competitions

The 110 interviews with WorldSkills competitors and their associates revealed wide-ranging benefits related to the WorldSkills Competition for individual competitors, as well as FE colleges, the industries represented by various skills, employers and the wider society. Most interviewees felt that the main beneficiaries of the WSC are competitors. Being at the core of skills competitions, WS competitors invest most of their time and energy into the competition and reap most of the benefits. 'They are the prime beneficiary,' explained a competitor from 2009 and talked about the 'next level' of benefits related to industry and economy:

If we can build a culture or whatever it be, a country of young people that have got better skills then in the long run, in the bigger scheme of things then the economics of the whole country or an industry can then be built. But that's like taking it to the next sort of level. One individual person competing in a skills competition and doing really well, the main beneficiary is the competitor.

Below we examine the benefits of participating in the WorldSkills Competition for each group of stakeholders separately: individual competitors, FE tutors and colleges, employers and industry, training managers and wider society. The evidence showed that these groups are quite diverse and the study tried to pinpoint important within-group differences. The highest degree of within-group heterogeneity exists among employers. Therefore, the discussions of benefits for individual competitors and FE colleges are much more straightforward than the discussion of benefits for employers and industries.

4.1. Benefits for competitors

WorldSkills experiences helped competitors to develop technical skills and soft skills that proved to be crucial for their career progression. Most of the interviewed competitors claimed that the WorldSkills training helped them not only achieve excellence in their respective professions, but also to acquire and develop communication and interpersonal skills that allowed them to present their expertise more effectively. The development of confidence and self-reflection, together with the skills of time management and public speaking emerged as some of the most important personal characteristics that were influenced by the training process for the WorldSkills Competition.

Many competitors experienced economic benefits, but satisfaction was also important

About 60% of the interviewed competitors indicated some economic benefits related to their participation in the WSC. Economic benefits in terms of higher incomes came in various forms: pay rises related to natural career progression at work; more work completed because the employee was much more skilled after the competition; more clients served because the competitor attracted more clients; starting a business; and additional work such as teaching. They were also short-term and longer lasting in nature.

Shorter term benefits

Economic benefits accrued with competitors' career progression, and this progression was closely linked to their participation in the WSC: 'I'm a lot more financially stable now, than I ever have been. But that comes through doing a lot of different things, climbing the ladder, which the competition actually helped me to do that,' said a 2009 competitor. A family member of a medal winner from 2007 noted that the competitor got 'pay rises a bit quicker with it, and then he moved jobs into a smaller company, and it was the WorldSkills and everything that helped him as well get the job that he has at the minute.' Some non-medallist competitors assumed that medal winners had much larger economic benefits than those who did not come back with a medal: 'I know off hand from a lot of my other friends that they've benefited massively financially from it. But they're the medal winners. Gold winners have got so much out of it' (2009 competitor).

There were cases when employers did not give a pay rise, but the incentive structure at the workplace allowed the competitor to get bonus payments because he worked much faster than before. 'But he has the benefit as do any of the others in that ... the work he turns out and the speed at which he turns it out gains him a bonus' (Employer, 2009). Interestingly, neither this particular competitor nor his family-member thought that he had gained significant economic benefits from his participation in the WSC.

Longer-term benefits

Of course economic benefits may accrue over long periods of time due to the experience that the WorldSkills competitors gained: 'you can't put a value on it, it's that good. You can't put a value in terms of cash' (Employer, 2009 & 2011). A 2009 employer explained that the competitor's salary did not increase immediately after the competition; instead, he received

a gradual pay-rise because 'of him developing and becoming more valuable, becoming more capable and more experienced.' The employer thought that 'some of that [skill development] maybe attributed to WorldSkills' but he did not just tell him 'you've done really well there [at WSC], I'm giving you a pay rise.'

Moreover, some employers believed competitors valued non-economic benefits more than they valued purely economic ones:

She's appreciative of the opportunities it's opened for her. And those opportunities are for all of them, aren't necessarily monetary value, but exposure and it's opened doors where she's going into schools, and ambassadors... so it's quite important meeting people, and people showing an interest. It's opened doors like that, so in essence there's that, and I think she would probably value the doors it's opened for her, more than say, monetary value. (Employer, 2011)

Although through exposure these non-economic benefits could lead to economic rewards in the future.

There was also a case when a competitor hypothesised that he would have been earning more if he had not interrupted his career because of the WSC:

If I'd stayed where I worked previously I would have been earning more money and would probably be earning more money now because it's a large company they have a very well laid out pay structure and there's a lot of money in [that sector]. So I would have economically been better off probably staying there. (Competitor, 2007)

However, this competitor had moved to a managerial job at a different company and he found his career 'professionally fulfilling' and did not regret the fact that he had left his previous organisation, because of its inflexibility during his WorldSkills training. In his present job he had more responsibilities and higher professional satisfaction than had he stayed with his previous employer:

I've been given a tonne more responsibility and my career... although today I could be earning more money if I'd stayed where I was, that money, I would have got to a limit that I would have hit and had I not done all the WorldSkills thing, like I said earlier, I was, 'I'll do the bare minimum.' So I probably would have got to X thousand pounds and just stopped and been happy ...I would have got to that point, stopped, been comfortable and just sat there for 20 years, retired and done whatever. I mean, there is a limit and that's dependent on you, there is a price that you're happy to be paid to take misery, if that's the right word, or be less happy. But at the moment, as long as I can afford to do what I want to do then I'm happy. In my old company, I would have not been allowed to do this; I wouldn't have been allowed to do that, whereas here I'm given huge responsibility. (Competitor, 2007)

Regardless of the fact that competitors did appreciate the benefits related to professional satisfaction, some thought that their career paths were attractive to others primarily because of economic benefits. A medal winner from a poor and rough area observed that people wanted to be like him in order to improve their economic well-being: '[Now] I always see a lot of people, who I haven't seen in many [years] ... and they'd love to be a [name of occupation]. They'd love to, but I only think that they say that, and they want to do that, because they see I'm doing good' (Competitor, 2005).

Technical skills development was accelerated by training, which introduced new tools, techniques and standards not learned in school or work

The development of technical skills is a major benefit stemming from the WorldSkills Competition. This finding is not surprising, as squad members go through a period of training and further competition to be selected for the UK team, and then engage in further training before WSC. However, what emerged from the interviews is the intensity of that training and its perceived value relative to the process of skill development. The process of skills development was: 'accelerated far beyond what they would get in a normal two year programme' (TM). Similarly, a competitor noted 'during two years of training, I probably got 20 years' worth of experience crammed in' (Competitor, 2007). Another interviewee said 'he got years' worth of benefit, maybe 10 extra years of benefit of extra training on top of his university degree' (Family member of 2011 Competitor).

Many other interviewees estimated that the WorldSkills training accelerated the process of achieving excellence by three to four years:

You're getting something like three or four years' worth of training in about a year. (Competitor, 2009)

Maybe I'm at a level sort of three years in advance. (Competitor, 2011)

Triple the apprenticeship crammed into a year. Not so much like length wise but technical wise. (Competitor, 2009)

My technical skills have obviously come on massively. Jumped me like three, four years above the people I went to college with. (Competitor, 2009)

In order to establish the added value of the WorldSkills training, we asked interviewees to recollect the skills they had prior to the start of the WorldSkills training and then contrast them with those at the end. A majority of interviewed competitors and their associates described huge differences between their skills at the start and at the end of the training

process. Most of the interviewed competitors reported receiving outstanding training prior to entering the competition and mentioned the high quality of training in their FE college, university courses, or workplace. But this did not compare to the WorldSkills training:

I don't think that I would have been what I am without the competition. I needed all that extra [training]. (Competitor, 2011)

The things you learn at college and in your apprenticeship are sort of the basics and then the things that you learn through WorldSkills are more intense versions of what you've learnt. So let's say colour matching. When I went to college we did a section on colour matching. I learnt about colour theory, the colour wheel and everything to do with colour and light. But then when you go to WorldSkills, when I went on to the colour matching training it's a more intense training. (Competitor)

A family member of a medallist noted a more in-depth understanding of materials and methods:

What's amazed me when he talks about stone now, is where at one time he would have just spoken about, 'Oh I've been to such a place and seen such a design, and it was really intricate and that was very good.' Well now, he won't just talk about the design of it, he'll talk about the stone itself, the way the stone is put together, minerals and things like that to do with stone, he's gone a lot deeper into it than it purely being a block of stone. He can tell you why some buildings start to crumble and fall down, and why others don't, like, if there's some sort of metal girder or something, holding a piece of stone up or something, why that one will last and that one won't. So it's not just purely about, 'Oh there's a piece of stone and it looks nice, doesn't it, now it's carved?' He thinks more intricately about it. Yes, he took a real in-depth look at it.

Before starting the training for the WSC, most of the interviewed competitors had received comprehensive training that would allow them to meet their professional or industry standards. The WorldSkills training brought them to a higher proficiency level because they had to compete to world-class, international standards: 'I just had to raise the standard and learn the techniques to bring it from the industry standard to the competition standard' (Competitor, 2005).

Interviewees described how the WorldSkills training allows competitors to refine existing skills that they had acquired through their workplace and/or educational institutions:

I think they do learn new skills but I think the quality of the skills they've already got, which would out-weigh the new skill they learn. So I'd say they may learn 25% new skills, but in terms of practical skills, 75% they will just practice and hone and get better and better (TM).

Refining of skills involved trying new techniques, equipment, tools and materials. The training helped competitors develop higher levels of accuracy and precision and gain more in-depth understanding of technical problems they faced: 'using the different materials and the different tools, and everything like that, that's helped me more so than a lot of other things really' (Competitor, 2007).

These techniques brought their work to a different level. Other competitors mentioned learning how to do drawings, for example, in a way that was completely different from the everyday practice taught at colleges: 'I basically make templates now completely different. I've had to scrap what I learnt at college and at work and just stick with this other way which has just changed it all' (Competitor, 2011).

New techniques, equipment and materials helped competitors achieve higher levels of precision in their work: 'so it would be accurate, it would be to the mil. I suppose I've learnt how to be a bit more accurate (Competitor, 2011).

The accuracy of what I was doing, it just raised from perhaps saying plus or minus 5mm, the tolerance to being plus or minus 1mm, and that was down just to developing wee techniques and just the skill level generally increasing just through repetition, and practice, practice, practice. (Competitor, 2005)

Say I do a repair on a car I feel like I do it better now because I'm so precise because in the competition it had to be perfect. So I find myself doing that every time instead of you see someone with a couple of spanners and just get the job done whereas I'll do a thorough repair. (Competitor)

Another competitor contrasted his skills at the start of the WorldSkills training to those he acquired by the end of it:

We started off doing things right but not always necessarily to the millimetre, obviously like building a dry stone wall or putting up a fence up to the millimetre it's not like fitting a kitchen or building a cabinet, it's natural materials so you just used to get it as near as you could. Whereas after the competition you were trying to get it absolutely spot on, to the millimetre, so you improve your quality of work.

The WorldSkills training helped some competitors acquire a more comprehensive understanding of how to solve some of the technical problems that they had faced at the workplace:

I suppose things like, fault finding things, why things happen... like, doing chocolate work, obviously if I've done it before maybe it's bloomed or the fat's come to the surface, or it's stuck in the mould and things, and I suppose through the training I've learned, why can this happen, what are the reasons, what can you do to change it?

And I suppose, with food, it's one of those areas that... I suppose, with confectionery pastry, there is so many things that can go wrong, so yes, it is nice to be able to learn why this happened and what you can do to change it.

Training and competition provided opportunities to develop social skills

Social skills were recognised as important for the labour market. Our findings show that the WSC training had positive benefits in developing some important social skills: communication and public speaking, time management, self-reflection and confidence.

Communication and public speaking improved

The training process leading to and following the WSC involved a great deal of communication by team members with a variety of stakeholders, including training managers, FE college tutors, employers, representatives of organisations that competitors visit for specialised training, fellow team members, WorldSkills alumni, media, government officials, various dignitaries, including the Royal Family, the Prime Minister, the Mayor of London, and Members of Parliament and the wider public: 'you were always in groups, you had to communicate, if you know what I mean, you had to meet new people all the time' (Competitor, 2005). Communication was important even in competition, as one training manager explained:

That was the same for everybody, for every competition there was the people who were involved, whether you were baking cakes, or cutting hair, or arranging flowers, you became an expert on explaining what you were doing. You literally became a presenter.

When asked about the most important benefits of the WSC in terms of soft skills developments, communication skills were at the top of the list. Interviewees generally said that they did not speak a lot and communicate with others before they started training for the WorldSkills. A competitor's family member relayed the following anecdote:

He was doing a competition in Manchester, and he got introduced to Prince Charles, and the first time he met him he just went, 'Hello.' And that was it. That was the only thing he said to him. And shook his hand, and that was it. And then got his head back down and started doing his work again, on the stone. And I said, 'I can't believe it, that's what you said to him.' He said, 'Well what was I supposed to say?' And I said, 'Well you didn't say anything, you just said, 'Hello.' And he went, 'Yes.' And he got the chance to actually meet him again, about 15 months later, something like that, and just never shut up. He was completely the opposite, he was just chat, chat, chat, chat, chat, explaining to Prince Charles what he was doing, why he was doing it, how he was doing it.

Well-developed communication skills proved to be useful in competitors' day-to-day work, especially in those cases when competitors have to deal with customers of different backgrounds:

I could talk to people who are on a lot of money here, some very high people. I could talk to them about my profession and about what I've done, and I could talk to them on a level where if I hadn't done that, it's quite hard to talk to them.
(Competitor, 2005)

Communication skills also helped competitors have more effective communication with their work superiors:

I can get my ideas across better, and I have no qualms with going to somebody who is of my manager's level and above, and I don't mind going up and saying, 'Well, I don't agree with that, I think you should look at it this way.' I think that's increased since the competition, because I queried so much during it. I did, I asked a lot of questions. (Competitor, 2011)

Competitors acquired skills that enabled them to give speeches and presentations to promote vocational education, apprenticeships and competitions. One competitor recollected how he spoke to a large audience at the City and Guilds Awards ceremony; another spoke to a group of 300 people from different countries at the Youth Forum:

That was, to me, that was crazy because this is like a government G8 summit or something and there's little old me talking. It was bizarre to say the least and I absolutely loved it and that was probably the most memorable speaking experience and probably will remain so for quite a while. (Competitor, 2007)

Competitors sometimes spoke at events that brought their professional communities together, such as the Welding Joiners Society, the Worshipful Company of Masons and the Royal Academy of Engineers. These public speaking events provided important opportunities for developing and using communication skills. A gold medallist compared his media appearances prior to the WorldSkills training and following it:

I would never do interviews before the competition. I did a an interview with the BBC at the Chelsea Flower Show 2008 or 2009 and it was terrible and it lasted about forty minutes and they didn't use any of it because it was that bad. And I knew it was that bad as well. So I said to them, you're not going to end up using this. They said, you'll get better with it. It will become easier. And sort of over the time ... experience has come out I stood up in open ceremony and I spoke the oath in front of a packed O2 arena so that was about eight thousand people. So it's all these things that just make you a bit more confident about what you've got to say.

This evidence generally confirmed the findings of the MoVE Australia research which had shown that competitors considered the development of communication skills as an important benefit of participating in the WorldSkills Competition (Smith and Rahimi, 2011b).

Time management skills are acquired

The WS competition involves completing set tasks within a strict timeframe. Therefore, training to develop time management skills was considered crucial for successful performance at the competition:

Time management and competitions go hand in hand, because you could be fabulous at doing a job and run out of time and never complete it. If you're running in a marathon there's no point in being the quickest over the first 100 yards or 500 metres, you need to get to the end of it and be the best at the end, the first person, in first position. It was everything really. (TM)

Okay I've got to do this, this, this and this, that means I've only got so much time to do this bit, and then I've got to be onto the next bit. Whether it's perfect or not, if I don't move on I'll be penalised later in the game, because I won't have got it completed.' So it teaches a significant amount, I think, about time management, because it's a timed competition. (CT)

Time management emerged as a considerable benefit from the WS training process. 'The whole thing taught him time management, to very small detail,' mentioned one of the CTs when describing the main benefits of WSC for a competitor. A competitor shared how he had developed this skill:

I found myself if I do a repair on a car it's done a lot quicker because I'll set myself little targets. If I take something off, I'll time it. There'll be a clock on the wall I'll just sort of glance up at it and memorise the time. Take a turbo charger off the car, look at the time. I know it takes twenty three minutes to take off. I still do that now on every job. Like every workshop I'm in, there's always a big clock on the wall. I was saying about the bonus. Because you think right ok, how much time you gain there. It's like if a job's three hours I'll say right I'll be finished now by two hours. The workplace environment provides more flexibility than the international competition, as there is often less time pressure. Obviously in WS you've got to make a project in 22 hours where in the real world, in my work, if I was given a job like that I'd probably given 40 hours to make it. And you've still got to make it to just as a high a standard.

Some competitors and TMs/CTs said that time management was a difficult skill to develop and, therefore, might have been an obvious weakness of a WS competitor. As a result of intensive training some aspects of it could have been improved:

My personal time management was a nightmare and all my friends and my girlfriend and everyone will say that. 'If you say an hour, it will probably be two' or something like that. But I don't know. I think as I've got maybe a bit older I sort of stick to it more now with work. I will be a lot more prompt and I was in competition but, personal wise, not a chance. (Competitor, 2007)

Thus, time management was perceived not only as a benefit but also as a reason for inadequate performance. One of the CTs thought that the reason why one competitor could not win a gold medal 'was actually down to a little bit of poor time management in the competition.'

Self-reflection developed

In this study, we followed the definition of Nokelainen & Ruohotie (2009) and brought together calmness, stress tolerance and good nerves under the concept of self-reflection. These authors argued that self-reflection differentiated experts from workers. Experts, they maintained, were better at identifying and dealing with their emotions. Throughout the process of training for the WS competition, the competitors developed calmness, stress tolerance and good nerves. When asked about the single skill that made his post-WS career most successful, a gold medallist responded:

I think the ability to stand back and reflect on what you have done and not to let quite a lot of the smaller things become very big things. Sometimes a very small problem can end up being a very [big] issue when it really doesn't need to be. And I think I've learnt to assess everything and not let things become a big problem. The ability to kind of work through things or think about them logically and sort them out and probably also the planning and organising other... well, organising myself and other people to make sure everybody is working to their best of their ability.

Similarly, other competitors considered self-reflection as the most important soft skill they took away from their training:

It was a lot of what set me up, and my career, just taking my time, thinking about the job before rushing, I was always a person to go in and rush it and then think, 'Oh, I've gone wrong here,' and that was too late like. It's helped me to calm down with that. (Competitor, 2007)

I mean, definitely dealing with pressure and stress, and being watched constantly. It was horrible at first. That's the most important thing that I've learnt, and I've been able to take into my job. (Competitor, 2009)

Development of self-reflection was sometimes associated with confidence building in WS competitors.

WSC helped to develop confidence

MoVE Australia research showed that almost 19% of competitors considered building confidence as a benefit of participating in WorldSkills Competitions (Smith and Rahimi, 2011b). Technical skills refined and developed throughout the process leading up to the WSC proved to be beneficial in many respects; these skills were useful at the workplace and contributed significantly to the development of individual competitors' professional confidence: 'technically, it sort of pushed me a lot further forward than I would have been if I hadn't have done it really and gave me the confidence, I'd say, more so to go ahead and do those sort of things,' said one 2007 competitor. These words underline the importance of technical skills in the development of the WorldSkills competitors' confidence. It was noted repeatedly throughout the interviews that the most important skill competitors acquire is confidence in their abilities, the confidence in their 'ability to work in trade at any level, with anybody' (TM/UL).

Competing with the world's best boosted the young people's confidence. One of the TM/CTs remembered that a competitor started at the 'bottom of the stack' and now served as the 'manager's right hand'. Others said:

And he's just got confidence in putting himself forward to other people. That was his weakness at the time. It's certainly not now, because he would be very outspoken. (CT)

She's definitely more confident in herself and approaching other people and speaking, communicating like publically, having to speak and stuff. (CT)

Another TM expanded on these characteristics as well:

I believe that their self-esteem must have gone up by 70, 80%. Their confidence must have gone up by 90% at least. And the way they handle themselves, the way they talk to people, the way... even on the phone, things like that, I believe it's a massive, massive change to their lives. It really does make a big difference to them. If I'd have had the opportunity at their age, that they had, I think... or anybody had the opportunity they had, I think it makes a big, big difference. To put it into terms, and quantifying it, is a little bit more difficult! (TM)

Thus, training for the international competition, through deliberate practice,¹⁰ self-reflection, striving towards consistently perfect results and the development of confidence, helped to establish competitors as independent professionals.

¹⁰ Deliberate practice includes activities to improve the performance (Ericsson et al., 1993). Deliberate practice requires active concentration on tasks and stretching the performance beyond the currently achieved level to

Participation in the WSC benefited career development

Our project built on the results of prior studies (Nokelainen et al., 2012; Smith and Rahimi, 2011b) that demonstrated that WorldSkills competitors enjoyed significant career benefits, which were linked to their experiences of participating in the WSC. Four main areas were identified: career progression; signalling capabilities; reputation; and networking.

Competitors' career progression benefited from WSC

In the overwhelming majority of cases participation in the WSC was reported to result in considerable career benefits for competitors. Two competitors summed it up as follows:

I think I would have got to where I am now eventually, but I think it probably accelerated my career by five years at least. (Competitor, 2005)

I don't think I'd be where I am today without it. (Competitor, 2011)

Most of the career benefits related to the WorldSkills experiences stemmed from the substantive gains in terms of technical and personal skills that competitors had developed through the training process:

WSC helped one jump 'ahead in your career in front of the people you might have gone to school with. So putting you probably three four or five years in front of them in your technical ability and your confidence in what you do. (Competitor, 2009)

Another competitor expanded further on the holistic benefit of WorldSkills for his career:

I don't know of any other awarding body or any other association that would give you that amount of time and money into the training that you can have to perform, not just your own skills but also your personal skills to develop you as a person, which has had a massive impact on me. And I think a lot of people can take a lot from that within their maturity and the way they develop, which again can help them further their career. (Competitor, 2009)

Some of the competitors reportedly become more valued at their workplaces, as they gained trust from their employers:

They're giving him the space in their workshop and basically from what he told me he's basically setting up his own little company within a company. And that was their plan. They've done that to try and keep him there working with them. (CT).

Those competitors who were promoted following their participation in the WSC, reported that their promotion was related to their WS experiences. A 2005 competitor recollected

develop the performer's abilities (Ericsson, 2006). It is the concentration aspect that differentiates deliberate practice from routine performance and playful engagement.

that when he competed at the WSC he was a junior at his place of employment. Since then, he moved up the ranks very fast. He took the position of a senior employee, followed by being second in charge and then the head person. Later he was moved to a bigger site where he had been working for three and a half years. Other competitors received the promise of promotion before leaving for the international competition, and on returning were promoted.

Not all competitors received a promotion but quite a few competitors said that their work duties expanded soon after their return from the international competitions, with more managerial responsibilities and decision-making functions. Two-thirds of all interviewed competitors had managerial duties at work at the time of the interview. Managerial duties were more frequent for older, male competitors. Eighty-five percent of those with managerial duties were medal winners.¹¹ Furthermore, the competitors were of the opinion that they had more responsibilities than usually expected from professionals at their age. A 2009 competitor said: 'I'm very young to be in the position that I am compared to other people across the industry. On average I'd say they're probably ten years older than me.'

An employer who had been actively engaged in supporting WorldSkills competitors described how WorldSkills had put the competitors ahead of all others in their age-group:

If I take [a WS competitor] for example, [he] has gone from strength to strength, and he's now the number two at [a restaurant]. [Another WS competitor] has progressed throughout his time at [a hotel] and he's now the executive sous chef and as a result of his contribution to WorldSkills, together with a few other people, picked up an MBE in the queen's honours last year, which is a major achievement for people that some are in their twenties and early thirties.

Family members of WorldSkills competitors also observed a significant impact of WorldSkills on their career progression.

It's made him really grow within his field, he's graduated now, and he's got really good internship; he's already done two; he's just started his third, and they're always really good companies. He's had friends who are really good, in the same course who are really, really good, who applied for maybe, I don't know, 20 jobs, and didn't even get a reply, but he had over 15 replies, and I think over 15 offers of internships with major companies. (Family member of 2011 competitor)

¹¹ There is a clear difference between male and female competitors in this respect. 72% of the interviewed male competitors and only 43% of the interviewed female competitors had managerial duties at work.

However, there were some interviewees who were not as positive about potential benefits to their careers from their WorldSkills experience. Various reasons were mentioned, including lack of publicity about WSC and what it entailed; that there was little value-added from the WSC experience over and above the vocational qualification they had achieved; and recognition of their own lack of effort to capitalize on participation in WSC:

The technical skills absolutely. I learned more in those six months than I have probably since on the WorldSkills type side. So producing drawings and all that sort of thing with the software. And to this day, I still use the technical skills I learnt as part of that. The career not so much. The reason for that, I now understand, is that WorldSkills is probably the world's best kept secret I think is the good way of explaining it. (Competitor, 2007)

It's like having... I've got a qualification that is equivalent to a degree but it's not equivalent to a degree unless everybody in the country knows what that qualification is. So it's not recognised. You can say that it's worth four A-levels or it's worth a Masters degree but it's not worth that unless the person looking at it knows what it is and believes the same thing. If you went to 100 employers I bet you 80 of them wouldn't know what WorldSkills was. (Competitor, 2007)

Participation in the WSC had signalling benefits

Several competitors mentioned a signalling benefit of WSC that influenced their career progression. 'It gives you this trophy that you can go up to an employer and say: 'I've proved myself in front of other people,' explained a 2011 competitor. 'It's a way to get your foot in the door I suppose,' said another competitor from the same year who argued that the WSC gave him confidence to go to an employer and tell them 'I've proved myself in front of other people. Will you give me a job?'

Many competitors and their associates mentioned the importance of having WorldSkills on their CVs in terms of WorldSkills giving one 'a CV for life' (Competitor, 2011). 'It's quite an impressive thing to have on the CV because it's quite a large scale competition of its type, probably the biggest of its type,' said another competitor from the same year. Potential employers who know about the competition have confidence in job applicants who have participated in the competition: 'they don't need to question you on everything. They know they're going to get very good quality standard of work' (Competitor, 2011). Another competitor told his story of looking for a job in Northern Ireland and the signalling power of the WorldSkills in this process:

I went around a couple of the other businesses, just saying like, 'Have you got any painters?' and I never told anybody who I was, and then I went up to this place I was told they were very fussy with their work and they done a good job. So I went up there and I asked to see the manager, and he was the owner as well. So he said, 'Tell us a bit about yourself,' and I just said, 'My name's [...],' and he said, 'Hold on right there, I know that name.' I said, 'Yes, I've been in all the body shop magazines and newspapers recently and the TV.' And he goes, 'Yeah...' and he Googled me and my name came up and he just said straightaway, he said, 'I'm interested in having you.' And he just put the pay down on the table and said, 'That's what you get.' And he works a bonus system as well.

A family member of a 2007 competitor thought that participation in skills competitions gave him a comparative advantage:

And this is sort of like an added extra going into competitions because it's your choice whether you go for these competitions. It's not something you have to do and I suppose employers would look and think, 'Oh, he's got that perhaps added extra. He's gone that extra mile. He's done something that's say out of ten people going for a job, nine won't have done it.'

The participation in the WSC gave many early advantages to competitors upon which they are able to build their careers. One of the competitors explained that the WorldSkills provided a 'solid foundation' to their career, and he 'just built on top of it':

It's a very good solid thing to go from but it's something, from my experience, I don't sort of say to many people anymore that I competed because they want to know about what you did last year at a flower show, for instance, and they want to know what you're going to do next year at one. So it used to be my unique selling point but now it's not.

For my career, I don't know if it'll have much more of an impact now. I think I've probably reached to the point where that's kind of got me where I'll get to, and I wouldn't be able to say, 'Oh, but I did that.' I think now I've probably peaked'.
(Competitor, 2009)

Later success, which was not always directly attributable to WSC, would nevertheless have been impossible without the initial boost. A 2005 competitor thought that even though seven years had passed, part of his achievements still impressed people and helped him get the 'job that maybe that other guy won't get.' So, yeah, it's been good and it's still working. The effect of it is still working, and I use it to my advantage all the time.'

Competitors' professional reputation improved

Increased reputation proved beneficial for competitors' career progression within the companies where they worked. The interviewees described how a competitor could turn,

for example, from a 'brickie' into a reputable bricklayer and how everyone around a competitor would change their attitude to them. Another thought that one of the main benefits from competitions was 'the outlook that people have after you've done the competitions, within your trade, company, whatever... friends and family' (Competitor, 2007). A competitor's family member said:

His confidence has improved over the years and his communication skills, so that's one side of it. But also, the technical aspect, he knows his stuff, basically, as they say. He knows what he's talking about. So his judgment is trusted a lot. If he turns round and says, 'No, we can't really do that with that particular piece of stone because of blah, blah, blah,' then they know that he knows what he's talking about and they trust his judgment.

Young competitors were trusted to the degree that their colleagues would consistently ask them for advice:

I've learned the sort of things that I guess I shouldn't have really learned until I'm about 40; so, do you know what I mean? I've been exposed to different scenarios and situations at a younger age, and I feel that has helped me mature and be able to give other people advice and stuff like that. (Competitor, 2011)

A 2011 competitor thought her employer appreciated her more:

I'd say it's given me a bit of value within the company as well. They understand that if they want me to stay they've got to move me forward because a lot of other companies would have me working for them because of what I've achieved.

Through media appearances and networking, competitors' reputations increased to the degree that some of them reportedly became 'quite public in the industry' (Competitor, 2011). Recognition by the industry often translated into career benefits:

Our industry is all about being known, being spoken about in the good light. It's helping me now. I've had a lot more. The more you get people talking about you and your ability, the more opportunities come your way. The more publicity, especially in our industry that you get the more opportunities come your way, the more that you're known and respected throughout the industry. (Competitor, 2009)

More extensive networking opportunities emerged

Networking was regarded as one of the main career benefits by a few of the interviewed competitors:

That's my biggest thing I've taken away, is the networking and friends I've made from all around the UK, it's fantastic. (Competitor, 2011)

Contacts I have now in the industry, through my training and through competing... so now I know people who will know who I am, so in terms of getting a job and things

like this, and asking favours to do this, this, this, it's a lot easier now. (Competitor, 2009)

Networking seemed to be important in terms of providing information on a variety of career options as well as in terms of getting jobs: 'It gives you the contacts that you need to make the right choices' (Competitor, 2011). Another competitor from 2011 also focused on expanding existing opportunities through networking: 'once you have competed, you're not stuck in one work place in a little bubble. You know what's out there and you've spoken to different people in different organisations.' Not only did the WorldSkills experience expand the networking opportunities for competitors, it provided them with skills to improve networking and appreciate its benefits. A 2007 competitor thought he was now quite good at networking: 'I'll go into a room, know who's on the list, and target people.'

The WSC encouraged entrepreneurship

WorldSkills training had been beneficial for competitors' careers because of its influence on competitors' aspirations, as well as the confidence to pursue these aspirations. A competitor noted:

WorldSkills has highly triggered this [aspirations], like, before, even in waitressing jobs I just felt like nothing, I just thought, 'I'm going to be in a dead end job,' or, 'I'm going to have a job that I'm not going to really enjoy for the rest of my life, and I might as well get used to it now.' And then coming across this particular skill by accident, has completely changed it, and WorldSkills has pretty much triggered off my business mind, if you will, and I just sort of want to own everything, I want to write a book... I just want to do so much; I've got so much more that I want to give the world, if that makes any sense, yes? So much more.

Almost 25% of the interviewed competitors, mostly those who competed in 2005-2007, chose to become self-employed. Freedom in professional decision-making was named as one of the primary reasons for starting a business. The absolute majority of self-employed competitors indicated that they would not have started their own businesses without the WorldSkills experience. It gave them the necessary confidence, self-esteem and people skills to become self-employed. A 2007 competitor explained:

If you get to international level, you have competed against the rest of the world, you have represented your country. That should give a lot of confidence. Now, it gives me the confidence to go out there and be self-employed. WorldSkills gave me that freedom to go, 'Actually do you know what? I can do whatever I like.' And not in an arrogant way, in a confident way.

The self-employed competitors mainly focused on their vision of expanding their businesses, whereas those who were not self-employed thought of either establishing their own businesses, or taking up new responsibilities within the companies where they worked (some of the interviewed competitors planned to remain employed, but change the employer). Quite a few competitors who were not self-employed at the time of the interview had been thinking of opening their own businesses. Some of these entrepreneurial ideas were focused on offering customised work, such as the production of bespoke goods and services. Entrepreneurship will be the focus of a project in the second phase of the DUVE work on developing and understanding vocational excellence for 2013-2015.

4.2. Benefits for FE tutors and colleges

This section discusses the benefits to FE tutors and their colleges, the findings being drawn mainly from interviews with FE college tutors and competitors. Overall, FE tutors and colleges reaped a variety of benefits from being involved in the WSC. This involvement facilitated better teaching and learning, helped them attract more students, had positive influences on existing students. The most significant benefit, however, was in enhancing the colleges' reputation.

Involvement in WSC enhanced college reputation

Almost all college tutors and competitors recognised that the main benefit of competitions for FE colleges was raising their profile locally and sometimes internationally: 'It shows the level of their training. It shows that they produce the best' (Competitor, 2011).

Competitions placed FE colleges on the map, as a CT explained, by showing that they are delivering the learning that is producing competition winners.

Competition results became the most important measure of success for FE colleges:

You're turning people out from your college that are producing work to a world-class standard, especially nowadays, if the college is well enough to promote how good they are in competitions... this is how we gauge ourselves, personally, as to how good a college we are as regards bricklaying is when we as a bricklaying college go and compete against other bricklayers, and the results that we get. (CT)

The WSC allowed selected FE colleges to 'bask in the reflected glory' of the success achieved at the competition; 'recognition, within the UK, perhaps worldwide, that as an educational

institution, that we are good at what we do, and that we are enabling students to be successful in their chosen careers' (CT).

One of the CTs indicated that involvement in the WSC widened the college profile and made people more aware of what the college and the staff members did. Involvement in the WSC was also a good marketing tool, as people attached competitors' names to the colleges they had attended (CT).

Obviously those FE colleges that promoted their involvement in the WSC reaped larger benefits in terms of public recognition than those that did not. Colleges seemed to use internal and external channels for promoting their participation. When a competitor won a medal, colleges received considerable media attention that helped them promote their work. Colleges also used some other methods to promote their students' success. At one college, the screensavers were designed to link to skills competitions. A CT at the college believed this was a great way of promoting the competitions. Another good example of publicity was the college that included the experiences of the WS competitor in the prospectus for future students to look at. Some colleges 'got these massive banners that they take around to every event that they go to' (Competitor, 2009).

FE college involvement in the WSC 'backed up that ethos of excellence the college promotes' (Competitor, 2005) and thus contributed to the establishment of a very positive image of the college: 'It's just showing that your local college can compete at that level; we have the ability here to train up to that level' (TM/CT).

Some FE colleges used the information on their involvement in skills competitions at their welcome days and other events. According to one CT, this showed that they could train people to world standards in selected industries and also encouraged new students to think about involvement in competitions. Another CT thought the WSC gave them credibility:

I know that's an awful thing to say, but we do take pride in when you see an article about one of your students that has been successful in something like this, you have a real sense of pride, because you feel well, we've helped contribute to that. It is, obviously, the student that's achieved it, but would they have achieved it if they hadn't had the opportunity to be here at college and do the courses that we're able to deliver, and apply from the skills and knowledge that they've gained while they've been here. (CT)

Standards of teaching and learning are improved

Many of the competitors thought that their college tutors had picked up new training ideas to use with their students: 'he learnt a lot on the drawings and how we did stuff and I'm sure he'll pass it on to his students' (Competitor, 2009). Moreover, some of the competitors kept in touch with their tutors and provided ideas for the syllabus improvement:

I go now and again and help them out and when my tutor or my old tutor is trying new things with the lads, try to put new things in from what I've said and from what I do at work and different projects that I've done and I can help him with. They try and train the lads up and try and get them more on the level [competition standard].
(Competitor, 2011)

A TM/CT explained how the standards of teaching might have improved at the FE college where he worked:

Obviously I bring different methods into my teaching, so I'll be doing the squad training [young people in training toward selection for WSC], and I'll bring a different way of teaching. So I've learned what I'd done with the squad, that I can fast-track young people in a certain way, to a certain point quicker, and then from that point onwards, they can work a little bit more independently, rather than being spoon fed, as I call it, because there's no point us spoon feeding them. So for me, the benefit can be quite startling at times.

FE college tutors seemed to be developing new methods and strategies of teaching and learning through their involvement in WorldSkills training. Yet some FE colleges used the new approaches to teaching and learning that they acquired from the WorldSkills experience for the improvement of their curriculum across the entire college. A college tutor explained that they had used some ideas that they learned about through the competitor's training for improving their syllabus; 'one instance is having how to bend a bit of conduit which is basically been mostly guess work and we've been shown a way to do it which we are now using in the college.' However, not all colleges were flexible enough to incorporate those new strategies into their curriculum:

One of them was making the templates. He come up with a few tips, ideas for templates where he actually clamped them to the table and rather than producing drawings first and making templates of the drawings he more or less produced his drawings onto the templates and cut the templates straight like that. That seems to be the way they're doing them in competitions now. But in the way that that we deliver our curriculum they have to do the drawings first and then make the templates because there is a unit for drawings and a unit for templates. (CT)

Involvement in the WSC was beneficial for some FE tutors in terms of learning about state-of-the-art tools and equipment. Because the competitor owned the tools, however, the benefit rested in being introduced to such tools, and it was reported that the colleges could not afford them. Thus, it was very useful for college students to familiarise themselves with such tools and equipment, even if it was only for a brief time. Moreover, having used some of the new equipment, college staff were also more informed and eager to find ways of acquiring them. FE college tutor success at the WSC seemed to create a favourable environment for attracting sponsors for new equipment/tools. For example, a CT said they got some sponsorship for tools and were integrating those new tools in their coursework. This was a saving for the college budget and enabled students to be exposed to new equipment.

WSC participation attracted more students

The study was not able to quantify how a college's WSC involvement affected student admissions. However, several interviewees offered their perspectives on the effects on enrolment. Some of the college tutors recognised the role of their involvement in the WSC in the recruitment of higher numbers of students:

We're full. We've got more students than we've had and this is a time of recession. We've got lots of full-time students, just lots. And part-time students we've got. I've got nineteen that are part-time evening students for one course. I've got nine more waiting to come on a course. So I'm going to have to offer another course because of the amount of students we've got. It's a big significant part of when the students come through the door and we show what can be achieved, it's surprising how many of them are really interested in acquiring those skills. So even evening students, this is mature students, nineteen pluses, most of them over twenty-four - twenty-five, when they see the piece of work, they all want to have a go and so it has increased participation in courses. (CT)

'We've seen recruitment go up on that side of things,' said a CT/TM who saw very clear links between his involvement in competitions and an increase in student enrolments at the college. He had allowed potential students to attend squad training, which coincided with the time when students were recruited. These students presumably got a first-hand view of what training at their college might entail.

A university lecturer also noted that their involvement in the WSC had increased applicant numbers:

We've now attracted students who saw us providing 'have-a-go' facilities in the London Excel 2011, and they saw that we do [occupation], and they applied to [it], because they saw us there. So there are long term benefits in terms of recruitment and things. (UL)

According to one of the CTs, a college with better profile generally attracts more students and more apprenticeships: 'this year we've managed to get two full groups of eighteen starts in the first year which is really good.'

From the perspective of WorldSkills competitors, FE colleges benefited substantially from their students achievements at the WSC:

It was a big added plus there, particularly when it came to recruitment, they were fit to say, 'Well listen, in the vocation area, we actually have a student who's competed at WorldSkills level, that's the level of training you'll receive here.' So they took it, the angle, from more or less it was their training that was the platform that allowed me to achieve what I did, which was a fair statement. (Competitor, 2005)

I think a year ago, they had a bit of trouble with numbers, trying to get people on the course. From my competition, and being in the all the papers and that, they've now had an influx of people. (Competitor, 2011)

Some interviewees recognised the large number of students that their colleges attracted.

However, they were not certain if it was solely the result of their involvement with the WSC:

We're definitely not short of numbers now, so, whether you could attribute it to that or not. But when they do come in to college on induction, they basically mention that they are at a good college and that we're very proud of the college that we actually come from and we give them every opportunity to follow in [the competitor's] footsteps and all the other competition winners. (CT)

College involvement in the WSC had a positive influence on their students

The presence of a competitor at an FE college was considered to have a very positive influence on other students. Observing the excellence of WorldSkills competitors' opened the eyes of college students. 'Some of them think that you know their works already a good standard until they see what's been done,' said a CT. From the perspective of another TM/CT, students' aspirations increased:

It drives those standards forwards, it gives them something to aspire to, it validates that they're on the right course; a course which is successful at a national level. It definitely does have a huge impact. Having him around, the confidence he has and developed through WorldSkills crosses over to the students and helps develop them as well.

In cases where colleges identified competitors as role models for the rest of the students, other students tried to emulate competitors and their success:

We've had a whole string of success flows through from [competitor]. [The competitor] was the sort of first one, but the whole string of success flowing afterwards and it's people trying to emulate, to get to the same position. (TM/CT)

Another TM/UL thought that the presence of a competitor at the college had 'absolutely phenomenal' influence on other students. They were inspired by the successful young person of the same age who did 'something amazing, which they didn't even know they could do in their wildest dreams, and they're still at college doing all this fantastic stuff, which is senior standard, with just such advanced techniques. They're just knocked out by it.' Another example from a competitor:

They'd probably heard my name. Oh, you [the competitor's name], the [occupation], and they'd come over and look at you and they'd want to be able to build what I was building at college and [the CT'] would then explain, you can do this, if you put the hard work and training into it. I mean it definitely paid off because there were definitely lads that then go through to competitions and further on in competitions once I'd left college. (Competitor, 2009)

Inspiration was sometimes translated into more effort from the college students. A few CTs noted that some students started to spend more time practicing their skills and became more motivated. Staff members also became more motivated to encourage students to invest more time and energy into their skills development:

As I say, it's infectious. It went across the department that everybody wanted success. Next thing we had our [competitor], he wanted to stay behind in the evenings and give up his time, but what he was prepared to do was stay in and do it in his lunchtime. He had students staying for the extra hour during their lunchtime, and he might do it on a Monday, and he felt, rather than students having to burden the cost of travelling in, he was prepared to give free lunchtimes up. He gave a Monday and a Wednesday and a Thursday up (CT).

To encourage and motivate students, some colleges showed skills competitions' promotional videos on their very first days of term:

Definitely motivated because when the new students come in, the first thing they do is put on a clip of WorldSkills and like, 'This is [competitors' names]. They went through the WorldSkills experience. [A competitor's name] went to Japan and he done this and he went to Shanghai and he done all this. He's met the Queen and he's met Gordon Brown.' They use that for kids to get sucked in. (Competitor 2007)

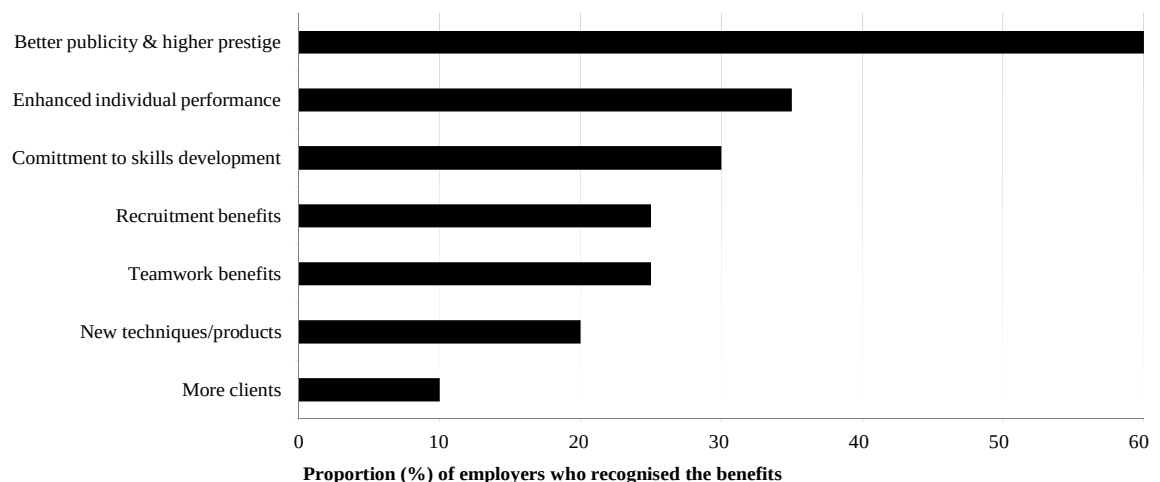
FE college peers may also benefit from competitors' technical expertise, especially those who had opportunities to work closely with a WorldSkills competitor on a group project:

At the moment she's working on a group project for her degree programme, and I think the members of her team on that group project are benefiting from her experience, directly, because she's gone through something similar already with the WorldSkills, working in a team to come up with a product and do all the research and produce all the data and project planning document for that project. So she's definitely having, I think, a direct impact on that activity right now. (CT)

4.3. Benefits for employers and industry

Employers mentioned seven main benefits associated with having a WorldSkills competitor at their firm. These benefits were: better publicity and higher prestige, enhanced individual performance, satisfaction from being committed to skills development, teamwork benefits, new techniques/products, more clients, and recruitment benefits (Figure 2). Each of these seven benefits is discussed separately, which is followed by the analysis of two main benefits that accrue to the industry – raising industry profile and improving industry standards. Even those employers, who were somewhat sceptical about direct benefits for their firms, did not question the benefits accruing to their respective industries at large.

Figure 2. Seven main benefits for employers



Employers enjoyed good publicity and higher prestige

Good publicity and higher prestige stemming from the WorldSkills experience seemed to be the main benefit of having 'a highly regarded' or 'the world's best' professional. As one

employer said, 'it was a good advertising tool'. Although these benefits were difficult to quantify, employers believed that 'there is certainly a reputation benefit' stemming from their support of a WSC:

We're a prestige dealer and to have someone you can sort of say this is the finalist from the WorldSkills works here is quite a gain it's a prestige thing to advertise. He got bronze medal we did use that in marketing and things like that. Again it's a face and a picture we could put on all our marketing. And then it's a picture of him with his medal or a picture of him in competition.

Although the employer of a 2011 competitor had not 'shouted to the whole world' that he employed the gold medallist, he still thought that his company was better recognised in professional circles as a consequence. It 'takes quite a long time for them to build up confidence in you. We're sort of getting our name known that we can do it. So it's good for us that way,' he said. The employer thought the press coverage on the competitor meeting with the Queen helped as well.

'The fact that we've got a world competitor separates us out from other businesses,' said one employer. This seemed to be the case for other firms as well. They thought that supporting skills competitions might have been a good mechanism by which they could be compared with other companies 'in terms of achievements, not necessarily in the products, but in terms of the skills' (Employer, 2011). An ex-employer recognised significant benefits for his business. There was 'a good commercial reason to promote this,' as he put it, as his name was 'associated with the new techniques and new floristry.' Better reputation led to 'better clientele' and 'bigger turnover.'

Press coverage is always good for the business: 'the business gets something back, obviously if he can become a winner then that's good for us as well' (Employer). However, press coverage may not be long-lasting:

You get a little flurry of activity around the time but the press and the PR work and that sort of stuff tends to come from the UK Skills organisation ... and they'll drop some lines to local press, magazines, whatever, and then I think it fades away quite quickly after that. (Employer, 2007)

Employers observed enhanced employee performance

Many believed that the quality of the work delivered by their employee improved as a result of their training for the WSC. The enhancement of individual performance standards, as an

employer (2009) explained, 'benefits the establishment in many ways, and that's all to do with quality and the desire to cook with very, very high standards.'

Competitors became more efficient, more accurate and worked faster. One employer thought the competitor at his firm was accurate in everything he did and dealt excellently with customers. This allowed the firm to bid for 'bigger and more interesting jobs' that required high level skills, that it 'wouldn't normally have been able to quote for without the knowledge that he's learnt, the skills that he's learnt' (Employer, 2011).

Employers noted that competitors' skills were now well-rounded, with excellent technical skills as well as interpersonal skills. With improved communication skills, WorldSkills competitors were more successful in talking to customers and other trades.

Finally, some employers thought that enhanced individual performance mattered not only in terms of individual effectiveness but also in driving the standards up in the company as a whole. As one employer (2011) put it, 'his standard is now our standard as a company.'

Employers gained satisfaction from showing commitment to skills development

Employers believed in the power of competitions to help young people develop excellence:

If you see someone that has a skill, you should actually really look after that and polish it and drive it, and stretch the boundaries of that person's skills to see how far they can really go, and in my position I think I should do that. Any competing actually helps them. It gives them a drive and it sets your standards, and if you want to actually drive standards further and push them, it helps them to do competitions, because the chaps aspire to different levels by actually winning competitions, and it gives them the confidence. (Employer, 2009)

Some employers emphasised their responsibility for the professional development of young people: 'it was only because I believed in what he was trying to do, he was definitely keen to do it, and it was a good thing for him to do, and I think he got a lot out of it,' said an ex-employer (2007). Another employer was driven by the desire to 'support [the competitor] all the way. I saw it as a once in a lifetime opportunity for him and I was there to encourage him all the way and ... offer support wherever I could assist with his training.' Similarly, an ex-employer said: 'so I thought, well yeah, we'll give it a go, try and help him as much as possible and just take it from there.' These employers were not expecting any particular benefits from their support of these competitors.

Employers also appeared committed to supporting the skills development of competitors who had been working for them. 'He's committed to us as an employee so why would we not commit to him as an employer' (Employer, 2011). The competitor was partially deaf and this employer had to make special efforts in supporting his WorldSkills training:

It has been very tough both financially and emotionally, as a committed employer, despite the financial and emotional kind of support and deficit that we had to incur, I would do it all again. I would happily do it all again. I mean it's a wonderful experience. It's been a wonderful although hard, it has been a great experience for both myself and [the competitor]. (Employer, 2011)

Thus, support for an employee in their training for the WSC emerged largely as altruistic by some employers: 'he was a good guy, showing willing to emulate what I'd done and to get involved in the competition so it felt natural and right for me to support him in that,' (Employer, 2007).

Companies reaped teamwork-related benefits

The WorldSkills was not only about the performance of the competitor, but also about benefitting the entire workplace team: 'when they come back into your kitchen, I would say nine times out of ten it's very, very positive for the kitchen because it drives other youngsters to do the same' (Employer). The presence of the WorldSkills competitor influenced the drive and aspirations of other work team members:

I'm going to have more aspirational cooks. Therefore the standards of cooking and drive will be so much higher. (Employer)

The motivation that he developed through participation did spill over into his work with the company, and that's the biggest benefit. (Ex-employer, 2009)

In some cases, a WSC competitor was a positive role model for other apprentices working at the company: 'they'll try and do their best to say to [the competitor] I'm as good as you, or they'll try and be as good as him'. This employer thought this atmosphere positively influenced the development of high standards of work within the team.

Some employers noticed that the competitor's team members at work felt very proud of the competitor. 'The whole sort of dealership was proud of him. His name was just you could hear all over the show room, everyone's showing him off,' said an ex-employer.

Competitors exposed their employers to new techniques or products

Some employers appreciated new ideas and information that the competitor brought back into the company while training for the WSC. 'We were always ahead of the game on new products,' said an ex-employer (2007). A florist talked about the new products and techniques that the WorldSkills competitor introduced to his business. Some of these were related to the use of new products, improvement of the image of final products, others to getting the product out more quickly, and yet others to higher commercial viability. In one of the cases, a competitor acquired skills related to new technologies that were not traditionally practiced by the employer. This provided an opportunity for the competitor to offer some guidance on these skills to his colleagues. He also went to similar firms in Switzerland and fed back new methods to his firm.

Some companies attracted more business clients

Some interviewees talked about WSC competitors helping to attract more clients to the business. A competitor shared:

Yeah, I mean people even say to me now, 'that was the most precise eyelash tint I have ever had.' And they sometimes can't quite believe it. So it definitely helped my skill, which in effect helped me get a lot of clients, because they're like... and things like painting nails, the people that have been doing the job like 10 years are still amazed by my painting skills. And in effect, that brings me a lot more clients. So, yeah, so, definitely, clients respond to it and like it.

In some cases, employers observed the benefit of not only higher numbers of customers but also different types of customers. An ex-employer said that they attracted customers nationwide, because of the competitor's links with a professional association. This link was established through the competitor's participation in the WSC.

Some firms reported on improvements in recruitment

Some employers noted that the involvement in the WSC helped them establish their reputation as a company that cared for its employees. One of them, for example, thought that people were now more aware of their commitment to their workers. Even those employers who did not see many other benefits from supporting WorldSkills competitors thought that their involvement with the WSC helped them secure good employees, especially apprentices:

There's a benefit as you've got newer apprentices coming through the ranks. It gives them something to want to follow on to and to perhaps show that they can be better than the individuals that have gone before them. So it encourages people to want to train and learn, but it also shows to people that we're prepared to spend and invest in their training. (Ex-employer, 2009)

In addition, some of the employers maintained that the benefits from supporting competitors accrued to the industry at large rather than to individual companies. An employer (2007) said he would encourage businesses to support the WSC 'for the future of the craft, of the industry.'

The WSC raised industry profiles

Many of the competitors and their associates argued that the WSC raised the industry profile in some ways. Some of them considered the WSC to be a celebration of different industries, under the conditions when there were few other indicators of industry-wide quality:

In Germany they have a very structured apprenticeship system; you can't call yourself a furniture maker in Germany unless you've done this very set process of assessments and work. We don't do that, we've lost all of that kind of guilds system, if you like in this country. So basically, you personally could decide to change your job tomorrow, and go and call yourself a furniture maker, and there's no problem with you doing that, because you can call yourself whatever you want. And because we don't have a system in place, unfortunately that's the case, and that means that there are lots of people calling themselves builders and plumbers, and electricians, who actually aren't any good at it, and have never been peer approved. And that does no good to the perception in the wider public, of somebody calling themselves that name, because it doesn't carry any endorsement from anyone. (Employer, 2007)

Floristry, mechanical engineering CAD, pastry/confectionery, bricklaying, stonemasonry and cabinet-making provide six examples that demonstrate how the WorldSkills may impact the profiles of industries.

A competitor in floristry thought skills competitions helped to modernise the industry's profile. She believed that through her participation in the WSC, she contributed to changing the 'women's institute' image away of floristry as an industry. 'The women's institute,' she explained, 'where old people go and make cakes and flower decorations, in a little group. Just women that run a group and they make little homemade things, very old fashioned.'

Another example of presenting an industry in a new, more positive light is the case of mechanical engineering CAD. As explained by a competitor and TM/CT, engineering had

been viewed as a dirty industry; people thinking that engineers have dirty and oily hands: 'With CAD and visualisation and animation and all that, it makes it more of a sexy trade to get involved with.' The training and publicity associated with the WSC, they believed, raised the profile of the industry.

Training managers seemed to have been investing effort in improving profiles of their industries. A TM/UL talked about his work to differentiate pastry/confectionery as a trade from cooking: 'pastry is very fine and very scientific, and relies on scales and weighing things, and being absolutely accurate. [The WSC] separates the two in people's minds.' She continued: 'We are constantly talking about the whole thing, and promoting it, and I just hope one day I'll end up like hairdressing, where pastry ends up with hundreds of competitors to choose from, as it is in other countries'. A competitor went to schools to give talks to promote the industry. His medal attracted children's attention immediately and interested them in hearing what he had to do to win the medal:

They instantly are hooked. And they instantly go... at the skills show, there were lots of young students, and junior schools coming round to see. If one person from that school turns round and goes, 'I want to make [product] like that when I'm older,' then we've done our job right.

One employer believed that the bricklaying trade received some attention through the WSC and that this helped to raise its profile:

Very successful in raising just the profile of bricklaying because you just wouldn't have seen that. You wouldn't have seen a bricklayer advertised like he does things. It probably encouraged young lads to think about construction as a career whereas maybe they wouldn't have done so before. But you can actually get your name heard. You wouldn't traditionally think of it as being a trade where you know you could get very far. You're just working on a building site but obviously there are things that you can do and places that you can go.

In particular some of the traditional crafts, like stonemasonry and furniture-making, may be benefiting from the skills competitions:

I think it's an exposure thing personally. It's when these competitions are there and the general public see it, there's a lot of feedback. I mean, ours is a very craft based industry. Not all of the industries at WorldSkills, for example, are. There are things such as IT and trades like that. Well, people are aware of them but something like stonemasonry, which is a craft, the message that we get a lot of is that 'we didn't know that these crafts still existed' or 'we didn't know that companies still did this nowadays'. (Employer, 2007)

One of the college tutors described how WorldSkills London attracted a lot of school children who observed competitions in different trades: 'It's made some of the younger people aware of what stonemasonry is and made them interested in it'. Not only young people, but adults seem to have learnt about the trade. For example, a family member of a 2007 competitor shared that locals 'couldn't believe the machine never does it. They just thought all these things were done on machines and not the fact that stonemasons work with hands ... So it does open their eyes as well, yeah.'

In case of [particular] industry, a CT/TM explained that skills competitions 'make people aware of fine craftsmanship' and raise the industry profile:

It's a funny industry because people often presume the quality's not there anymore; it's all rubbish that's produced now. And the quality is there and the standards are there as good if not better than ever. The general attitude tends to be 'oh, this is all in the past', and actually that's not true. They probably make very much better [product] now in reality. So it does help raise the profile of the industry. Yeah.

Finally, the fact that all industries were presented together at the skills competition seemed to be an important factor in terms of attracting more attention to relatively less known and less popular industries. One of the lecturers noted that very few people attended their national finals at their institution in the last four-five years, despite the fact that the university as well as friends and family of competitors were very supportive. Maximum attendance used to reach up to 100 people for the two-day competition. However, as soon as all the 53 skills were put together under one roof, everything changed. 'Suddenly, the hundred people have grown to 100,000 registrations over three days. That's going to have a huge impact in terms of visibility, and understanding how industry needs are met'. Another employer (2007) explained:

If it raises the profile of the craft, more people understand it and are keen to get involved in it, that's surely what it's about. It's about preserving that and keeping it going and hopefully developing it and the more times that that can happen or the more people that you take on and employ, it's only helping that side of things.

The WSC provided the opportunity for the profile of vocational professions to be raised and new talent to be attracted to these industries. These benefits will be discussed in greater detail in Section 5.

The WSC raised industry standards

As the WSC brings together highly skilled professionals from all over the world, it is not surprising that it facilitates some advancement of industry standards. 'It's always pushing standards higher' (Competitor, 2009). Most competitors and their associates confirmed this statement and offered a variety of examples from their professions. A competitor who won a Medallion of Excellence six years ago said the standards had moved quickly since he competed and that the current competitors are far superior:

I said to the training manager last time I was with him that I don't think I could get through anymore because the standard of ours has improved so much. I'm a lot further down my career line now but the standards that we had then to the standards we set and we set higher every year, it's constantly getting harder and harder. So we keep changing the standard and making it hard and the standard keeps on stepping up to it. So the standard some of the [occupation] are at when they go, they should be far superior to what we were really. (Competitor, 2007)

Different aspects of skills competitions helped raise industry standards. First, the WorldSkills competitors who achieved excellence in their respective skills returned to their industries after the competition and contributed to pushing up standards across the industry: 'all those competitors get jobs in industry. They will train others. I think the standards will get much higher by just having competitions like that. Which is quite good' (Competitor, 2011). 'I think it raises a standard in the industry, it pushes individuals to be the best,' said a 2009 competitor when asked if the WSC raises industry standards.

The focus on individual competitors as agents of raising industry standards was one of the most prominent themes in interviews. A 2005 competitor explained his own case and the influence of his own work:

The practical skill set I have now, it's recognised as a world class standard. And that's something, even unconsciously, or subconsciously sorry, I take into the workplace. I still do some work out on sites, part-time and holidays and things like that, for various contractors, and the skill set is unparalleled, as in that's the standard I bring into the workplace. And it's obvious, and in my teaching as well, it's noted in the college that I now actually train students for skills competitions, and we've a fantastic track record in the three years of being here, simply because I have the skill set already there. So, my vocational skills, just the standard of that, it does surpass most of the industry.

The process of contributing to the advancement of standards started when the competitor began training for the WSC:

If I started college and then I were asked to do a competition, I've got to get to a better standard because I'm entering that competition to win it, aren't I? I do as well as I can in it so I need to keep upping my game. So competitions do that for people then it filters down into industry, doesn't it? And you naturally just carry on like I'm doing now, it's got to be. I can't leave it, if there's something out of place, it's going to annoy me, you know? So it's that sort of thing. If it makes me a better [occupation], then it might make somebody else a better hairdresser or whatever. (Competitor, 2005)

At the WSC as well as in the work of competitors outside the competition environment people saw 'something different,' something 'out of the ordinary' (Competitor, 2007). The extraordinary achievements of WorldSkills competitors improved standards:

It opened my eyes a lot to what I can do... not just me, what you can do. If you look, again, at all the other skills within WorldSkills, again it's, 'Wow!' you know? Things like, I don't know, landscape gardening, or hairdressing, you just think, 'Oh yes, that's just a normal job,' but then when you went, and see the sort of things that were created, you think, 'Wow, that's amazing!' It's that showing what you can achieve, within your job, and I suppose, yes, it's raising standards, aspiring to be the best that you can be really. (Competitor, 2005)

We had this conversation at the last squad selection with a lady from another college, she was teaching [name of skill area] as well, and she was noticing that the standard generally has gone up now that people have been able to see different designs. It has changed recently, all the techniques. We've got a lot of new techniques that have been brought in from other countries. Whether that's down to this competition or not I don't know, but probably a little bit is. The fact that we do hold the competitions at different colleges then the tutors can see all the different ideas, so that could raise the standard a bit. (TM)

As indicated in the above quote, the international aspect of the competition was considered important. Other respondents also drew attention to the fact that the WSC brought people from different countries together and allowed them to learn the state-of-the-art techniques from various parts of the world:

There's up to 20 different countries in one competition, just on that one subject, so if you're a [occupation], and there's 20 different ways to [do the occupation], different ideas... they can bring this new design back, and spread it between all the different companies. (Competitor, 2007)

Industry standards were raised through the involvement of competitors, their college tutors and training managers in teaching and training students and apprentices. A 2007 competitor had been talking with young people in his mission to promote skills competitions, as he believed that by entering competitions young people 'get the bug and not be happy with the bare minimum and want to push, push and push and then hopefully will raise the

standard across the board.'

Finally, the training managers were actively involved in establishing international standards in all WorldSkills categories and they did this in active collaboration with industries. A TM, who had served for the WS for more than seven years, talked about the importance of keeping very close links with the industry: 'you have to be glove in hand with them, look at the industry standards and also manufacturers, how they want their products to be put into place.' This TM argued that the process was useful for the industry as well: 'I'll ask them what their standard is, and on a monthly basis, or a six monthly basis, I'll review those standards with them, and make sure that I'm still on the same lines, where they want us to go.'

4.4. Benefits for training managers

Training managers played a key role in developing the UK competitors' excellence in their respective skills. TMs began working with the young person during the UK squad selection. They were employed by WSUK, and most of them had a day job in an FE college. They were responsible for the full preparation and training of the competitor for the WSC. They developed a personalised programme and made sure that the competitor received the best possible training in order to meet world-class standards in their respective skills category.

The majority of the 12 TMs interviewed were proud of and committed to their duties and invested significant amounts of time and energy in training the UK competitors: 'The time I put in and not just me but the other training managers, you're talking 14-15 hour days sometimes' TM. Regardless of the serious time commitment and some discomfort related to this unfamiliar role, most of them agreed that they were beneficiaries of the WorldSkills Competition. TMs found the following aspects of their WorldSkills experiences particularly useful and enjoyable: professional satisfaction, career benefits, awareness of the latest development in industry, refining skills of teaching/training, learning from international exchanges.

TMs received professional satisfaction

Different aspects of serving as a WorldSkills training manager seemed to provide high levels of professional satisfaction to these experts such as enjoyment of the complex process of training WorldSkills competitors in technical skills, observing competitors' personal

development, collaboration with other WorldSkills experts, and being recognised in their industries:

I would honestly say that the 10 years I did as a training manager were the most enjoyable. (TM)

I get an awful lot of satisfaction out of going and working with a group of international experts. (TM)

It was a bug inside me that I enjoyed doing it, and I do enjoy doing it. And I enjoy teaching. And I enjoy instructing and pushing people further forward. (TM)

TMs found satisfaction in supporting the professional and personal development of WorldSkills competitors and formed strong bonds with competitors that have been maintained following the competition:

It's probably easy to tell that it's job satisfaction with me. I just love seeing the process for somebody that starts off okay and then it raises them up to somebody that's just a totally different person. That's the pleasure that I get out of it, and the fact that they all stick with it and still contact me every day. Like one big family. (TM)

Some TMs also found their involvement with other TMs and experts rather satisfying professionally. 'I get an awful lot of satisfaction out of going and working with a group of international experts, that we can talk about things, we can argue about things... and we can learn from each other,' said a TM who served in this role for 8 years.

The industry recognition that some the training managers received for training WorldSkills medallists seemed to be one of the particularly fulfilling parts of their service. Also, a few TMs and competitors had been awarded MBEs. Besides professional satisfaction, the training managers saw concrete career benefits as a result of their involvement with the WorldSkills UK.

The WSC brought career benefits to TMs

'I would say in a nutshell it's the best thing I ever did with my career,' said one of the TMs, who had been in this position for 16 years. Those training managers who had served for a few years talked about the benefits they had reaped, whereas recent TMs expressed hope that this experience would allow them to develop expertise and 'in a few years time move on to something else.'

One of the relatively experienced TMs considered his affiliation with WorldSkills UK very relevant for his career: 'the role I have now as head of education in the UK for [company],

that simply wouldn't have happened if I hadn't got involved in the WorldSkills organisation.'

A TM with ten years' experience was awarded a City & Guilds Graduate Apprenticeship qualification during her service. She mentioned a new qualification as an important career benefit. For most of the interviewees the experience of serving as a training manager carried multiple benefits in terms of helping professionals progress through their careers. The WorldSkills experience: '[became] a big part of my CV. It shows that I have worked at the ultimate level, I've worked in another country, it shows that I've been successful.'

TMs also noted the influence of their WorldSkills experiences on the development of their professional confidence. One reported that he had some doubt and hesitation before joining an organisation like WorldSkills UK, but this ambiguity disappeared right away: 'as soon as you get into that situation you become confident, and I know full well, I know what I can do, and I know what my limitations are' (TM).

Finally, training managers said they developed the skills to balance different responsibilities and prioritise the most important ones:

It's quite a balancing act. But it gives you an opportunity to look at things in a different way. Things that are less important you just put to one side, and you work... a bit of time management I suppose, it's not rocket science, but it makes you think, it makes you appreciate your time better.

TMs became more aware of the latest developments in industry

WorldSkills provided TMs with opportunities to learn about new developments in their respective fields. One TM/UL explained that lecturers often worried about becoming 'old-fashioned and just churning out the same old thing.' She said the WSC helped keep the 'skills alive and current and ... to invest in my skills development':

So our WorldSkills Competitions and our technical descriptions reflect what is currently taking place in industry, and I know from being a teacher for a number of years, it can be difficult at times to actually get the time away or actually get access to the latest technologies and the latest training methods and things. So it enabled me to really keep my own professional skills set right up there with the latest in technology enhancements. (TM)

TMs had opportunities to attend various events for professional development: 'what it does do, it ensures that you keep your own skills set at the cutting edge of industry practice' (TM). Another TM found his recent visit to another country very useful. Attending a competition there turned out to be a good learning experience for him:

I've come away and thought they're doing that a different way to what I would do it, but let's try it. So yeah I have. My own skills are developing as well, my own knowledge of how to push people to excellence and it's improving. I've a long way to go yet. But it's getting better, yeah. Yeah. So that's a personal benefit yeah. I'm developing my skills as well alongside my competitor skills.

Another important aspect of professional satisfaction that emerges from this quote is a TM responsibility for pushing WorldSkills competitors to excellence, which is discussed below.

TMs' skills of teaching and training were refined

The WorldSkills experiences helped TMs become better teachers. Their ability to explain the processes around technical skill advancement improved and their patience developed in the process of training:

I think I'm good at explaining to people what I want training-wise, and I'm providing it or having it provided. I think I'm a better trainer than I ever would have been had I not been involved. I think I'm a more patient person with people who work for me, and I can show them and explain to them what I want, and how to best achieve it.
(TM)

Some TMs focused on the continuous development of their teaching and training skills as a requirement as well as a benefit of their role:

You have to keep yourself on the ball. You have to be looking at new ways of training. For instance, my training model now, is completely different, in many ways, to the training model I had in 2009. So I'm always improving on that training model, but I bring other people as well, so I don't just do the training on my own, and having that networking improves my teaching ability, because then I can take what I've learned as well, into the classroom, and I can actually use that to benefit... I think that's the big thing about being a training manager. (TM)

TMs learned from international exchanges

The position of a TM involves considerable international exchange of expertise. WorldSkills work in collaboration with experts from different countries allowed TMs 'to be able to almost compete really, at an international level. You are actually putting your mind against international experts, you will learn from international experts, you will get international experts who will learn from you.'

International exchanges were mutually beneficial:

We were able to support them and help with their training programme and they grew exponentially, from the first time we met with them and they had their ability

to how they competed at WorldSkills, they looked like a completely different group of people. And the important thing is that these cultural exchanges are also exchanging information and resourcing the opposite direction as well. What we try to do is to make sure that both parties are learning and gaining from the partnership moving forward. (TM)

He continued:

I went out to Switzerland with a group from WorldSkills UK and had a look at their vocational training programme, which is seen really as sort of the leading light in Europe. And we're able to share practices and understand the way that different organisations are working and different educational structures are working.

Some TMs mentioned networking benefits. A TM was invited to judge Korea's national competition and also travelled to Brazil as a chief expert at a South American competition: 'so all of these are benefits to me, because I get to travel as well as meet other people, and it's networking and seeing other skills and talents, and cultures, and techniques... so it's all very, very worthwhile.'

Such benefits, however, may not be immediately recognisable. One TM put it well - although 'it doesn't happen over-night, it's an opportunity for training managers to develop themselves as people and educators.'

Considering these benefits, it was not surprising that most of those TMs we interviewed served for an average period of nine years.

5. Wider potential benefit of skills competitions: making VET more attractive for youth

Beyond the benefits to competitors and other stakeholders, skills competitions have the potential to promote vocational education more broadly and to raise the attractiveness of vocational education. Four themes emerged during our research:

- skills competitions presented an opportunity for young people to learn about a variety of vocations;
- skills competitions helped create an understanding that acquiring vocational skills can lead to promising careers;
- skills competitions provided an opportunity for young people to see the level of excellence and success that can be achieved in vocational professions, and they can gain

confidence in reaching similar success; and

- skills competitions helped improve the profile of selected industries and FE colleges, and have the potential to attract more talent to vocational education and apprenticeships.

5.1. Skills competitions raised awareness about vocational professions

Skills competitions and skills shows can be beneficial for raising awareness about different professions and occupational choices. The WSC, in particular, attracts a wide audience including school children and young people. Many competitors discussed how skills competitions provide an opportunity for young people to appreciate the types and levels of skills involved in different professions. Developing such knowledge may prove to be useful for recognising the type of work that young people feel they are suited to doing and what the possibilities are in that vocation: ‘unless you are actually showing people careers, they don’t always realise there are opportunities out there,’ (TM). This TM also argued that skills events like competitions and *The Skills Show* inspired employers, government and colleges, and, primarily, young people. Another TM also thought that the WSC was inspiring for young people as they saw a number of career options available to them:

They will see lots of different things, some people will want eye to eye in technology, others will want the kind of... the conservation skills that the stonemason has... general building, the built environment... to see those skills on view and say, ‘Well I want to be one of those,’ the competition itself is a great vehicle for the youth to see what is available to them. (TM)

Skills competitions and skills shows were often discussed interchangeably when referring to the benefits of these events. A 2005 competitor had been involved in skills shows and exhibitions and thought that these helped younger people see and appreciate a variety of trades available for them to learn. These skills shows were considered to be the most beneficial form of careers advice currently available to young people.

5.2. Skills competitions helped young people understand that the vocational route can lead to a professional career

The WSC showcases what can be achieved in vocational careers and can ‘demonstrate that a vocational route may be as valuable as an academic route’ (CT). Through attending skills competitions young people may learn that vocational professions are not just jobs but

careers: 'competitions show that skills like bricklaying and visual merchandising are valid professions' (Competitor, 2011). Many thought the WSC changed the meaning of the word 'vocational'. A competitor's family member had assumed that the word vocational 'didn't mean quality, it just sounded like you do something like that if you weren't clever; that's how I felt, and I think a lot of people think like that.' However, the WSC entirely changed her perception:

If people actually saw what these people were producing, it was incredible, absolutely incredible, in every skill there was, it was amazing. There's a lot of possibility out there that people do not realise is available; they just don't realise there are all these subjects available to them (Family member of 2011 competitor).

5.3. Skills competitions inspired through examples of excellence and success

By seeing the level of excellence and success that can be achieved in vocational careers, young people may be inspired and more confident to take up training in new skills or improve their existing skills. The individual examples of successful WS competitors could have an impact on the reputation of VET. A gold medallist believed that her experiences inspired quite a few youngsters:

A lot more people want to do it, because of all the experiences I've told them about, all the opportunities I've had, loads of people want to get involved. So I guess, through my participation a lot of the guys have actually wanted to have a go. And that's the same at my college as well, the one I was at before, where it basically all started, I've left quite a big, huge impact there as well.

A competitor (2011) argued that the WSC made apprenticeships more valued. Seeing and talking to WorldSkills competitors may help others appreciate vocational professions more and develop confidence that they can also achieve the same level of success. A competitor's family member highly valued his efforts of demonstrating his skills and talking to young people at local schools. Other interviewees also confirmed that the WSC provides a platform for young people to show what they have been able to achieve as a result of their vocational training:

It's enabling young people to be able to demonstrate their skills to a wider audience, and yes, I think that's only a good thing. It's quite easy for people to think, oh yeah they're at college and they're doing a qualification, that's great, but what are qualifications worth these days? But actually being able to see them and see them actually be able to apply the knowledge and develop skills, and want to be involved in something like this, I think that's a really positive thing, and really positive experience. (College Tutor)

Two competitors from 2011 and 2005 compared the WorldSkills Competition with the Olympic Games and discussed the opportunities that young people may consider when exposed to the examples of exceptional performance in sports or skills:

It's the same with the Olympics right now, it's giving young people, it's giving a generation something to think about. We had the WorldSkills, we had the Olympics. And as a young person, to see this, it gives you a lot of options in life. (Competitor, 2011)

The Olympics in London, it's the same thing, just on a bigger scale, really. People see people doing well, everyone wants to come into that area, and everyone wants to get better at what they're doing. (Competitor, 2005)

The individual examples of successful WorldSkills competitors promote and popularise skills training. According to a gold-medallist, his achievement at the WSC could encourage more young people to take up skills training: 'I hope that all that I've done so far has inspired more chefs who are younger, if not my age, to participate and get involved.'

5.4. Skills competitions helped improve the profile of selected industries and FE colleges

Finally, the WorldSkills Competition improved the profile of selected industries and the image of individual colleges. These two trends, we argue, could have some influence on young people's interest in vocational professions. The representatives of colleges saw benefits arising as a result of supporting a WS competitor, among them: better quality teaching and learning; increased networking opportunities and funding; and access to first-hand information on skills competitions. The biggest benefit, however, was an overarching one and related to the positive impact of participation in skills competition on college reputation which helped them attract more students.

The majority of our respondents recognised the industry benefits associated with the WorldSkills Competition. Even those employers, who were somewhat sceptical about the direct benefits their firms reaped as a result of supporting competitors, did not question the benefits accruing to their respective industries at large. We could establish two main types of industry benefits from the WorldSkills Competition: raising industry profile and improving industry standards.

Some of the training managers thought there were higher numbers of young people entering skills competitions each year, which was an indicator of competitions becoming

popular and young people being interested in vocational professions. The majority of interviewed training managers and college tutors discussed the positive influences the WSC could have on inspiring the young people to pursue vocational careers:

I think we've got out there, a couple of very, very good young people who have gone through the training cycle, who are now probably, to some extent, inspirational to other young people, to see where they can end up and what they can do. So, if you ask me if it's worthwhile, I would say yes, definitely. (TM/CT)

5.5. Lack of publicity emerged as an impediment to full benefits

WorldSkills is probably the world's best kept secret. (Competitor, 2007)

While the WSC raises the profile of vocational education and brings significant benefits to individuals, industry and society, many participants believed its reach could be further if publicity was improved. This theme was strong and frequently recurring in almost all interviews:

If you know about it then you get caught by it. If you don't know about it, it just goes over your head. (Competitor, 2009)

If only the people who don't know about it could see what we saw, they'd be totally and utterly amazed. It's just out of this world. (Competitor, 2007)

If it was publicised more into schools and colleges, it gets young people excited, interested in that vocational skill. And I suppose, eventually that leads onto jobs and things, which I think, in the current climate, there are lots of people that have either gone to university or colleges or whatever, that are struggling and can't find a job. (Competitor, 2005)

Competitors and employers recollected that there was very little media attention given to the WSC in 2011 and referred to WorldSkills as the best kept secret, which none of the individuals involved wanted, especially considering its long history. The consequence of inadequate media attention was not only lack of awareness of WSC by the wider public but also in the business community:

We're finding employers, I get judges from industry to assess what we do here, they have never heard of it ... most of the manufacturers, or the sector in the UK, they're not international companies, they're smaller companies. Somehow the message hasn't got out yet. (UL)

Some respondents offered explanations of poor publicity. Interviewees suggested that the low level of interest from the media could be explained by the fact that people are more eager to hear negative stories than positive ones. Another reason put forward for the lack of

media attention to skills competitions was the perceived low status of vocational education as opposed to academic education:

I think, personally, that WorldSkills London wasn't promoted as high as what it could have been. And maybe that's just because vocational training is pushed down the ladder a little bit, as opposed to the academic skills, but now I think it's the time that skills need to be pushed harder. (CT)

Almost all interviewees talked about the lack of publicity and maintained that benefits to individuals, colleges, employers and communities would be greater if more people knew about the WSC.

6. Recommendations

This study identified a number of benefits for competitors, employers and industry sectors, FE tutors and their colleges, family and friends of the competitor, and the training managers. It also identified four wider areas of potential benefits to vocational education and training. The participants were all advocates of WorldSkills Competitions and wanted to ensure that their experience could be more widely drawn from:

I think that actually we're on the brink of making the most significant change and the most significant change, for me, is taking what we're learning from this programme and implementing it back into the standard educational system in the UK. I don't want just a handful of lucky people per year to benefit from what we're doing, I want to see thousands, tens of thousands across the UK gaining benefits from that and growing their potential to go out into the modern workplace by the skills that they can learn through implementing it into a national apprenticeship programme. (TM/CT).

We conclude with some recommendations that emerged from the interviews with the various stakeholders for the National Apprenticeship Service to consider:

1. Better publicise the WSC, as well as skills competitions in general, to capture a wider audience. This should be a sustained effort, not just around scheduled competitions;
2. The continuing involvement of FE colleges often rests on the goodwill of tutors. Examine whether direct incentives to participating might widen the circle of colleges involved;
3. Adjusting to life post-WSC is not a straight forward process and competitors could be better supported upon returning from the WSC;

4. Consider ways for employers to be more actively engaged during the WS competitors' training both in their own workplace but also during the competitors' off-site training. In this way communication between employers and TMs could be improved;
5. Improve the lines of communication between competitors and TMs by setting clearer expectations of both parties in their WorldSkills UK training;
6. Highlight the experience of female competitors in male-dominated fields to help promote female participation and interest in those fields.
7. Use positive employer experiences as a marketing tool to increase employer involvement across skill areas.
8. Selection procedures for skills competitions could be improved by (a) opening up to more young people and (b) making more time available for training leading up to the WSC;
9. Financial incentives for TMs need to be revisited to widen the pool of potential candidates; and
10. Larger companies may be benefitting from supporting WorldSkills competitors more than smaller ones as the costs of supporting a competitor may be higher for smaller firms. Incentives for smaller firms to participate need to be revisited.

7. Acknowledgements

We would like to thank the participants in this study for their time in explaining to us their experience of being involved in Team UK and the WorldSkills Competitions.

We would also like to thank Dr Cathy Stasz for reviewing this main report and the overview report. Her comments and editing were extremely appreciated. Any errors remain our own.

8. References

- BERA, 2011. Ethical guidelines for educational research. British Education Research Association.
- Berry-Lound, D., Rowe, V., Willis, D., Windmill, B., 2012. Review of research and evaluation into the impact of competitions on development of excellence in vocational learning and Apprenticeships: Final report to the National Apprenticeship Service and The Skills Funding Agency from HOST Policy Research. HOST.
- Ericsson, K., 2006. The influence of experience and deliberate practice on the development of superior expert performance, in: Ericsson, K., Charness, N., Feltovich, P.J., Hoffman, R.R. (Eds.), *The Cambridge Handbook of Expertise and Expert Performance* (Cambridge Handbooks in Psychology). Cambridge University Press.
- Ericsson, K., Krampe, R., Tesch-Römer, C., 1993. The role of deliberate practice in the acquisition of expert performance. *Psychol. Rev.* 100, 363–406.
- European Commission, 2010. The Bruges Communiqué on enhanced European Cooperation in Vocational Education and Training for the period 2011-202.
- Helakorpi, S., 2010. The Philosophy behind Vocational Skills Competitions, in: Kaloinen, S., Pynnönen, P., Saarinen, H. (Eds.), *Competitions for Everyone*. HAMK University of Applied Sciences Vocational Teacher Education Unit.
- Hughes, M., Smeaton, B., Hall, G., 2004. A cut above: customising a curriculum for excellence in skills development (Research report). Learning and Skills Development Agency.
- James, S., Holmes, C., 2012. Developing vocational excellence: learning environments within work environments (SKOPE Working Paper No. 112). University of Oxford, Oxford, UK.
- Nokelainen, P., 2012. MoVE International: What contributes to vocational excellence?
- Nokelainen, P., James, S., Stasz, C., 2013. What contributes to vocational excellence? A pilot study of the individual characteristics of the WorldSkills UK 2013 squad (forthcoming) (SKOPE Research paper). University of Oxford, Oxford, UK.
- Nokelainen, P., Ruohotie, P., 2009. Characteristics that typify a successful WorldSkills competition participant. San Diego.
- Nokelainen, P., Smith, H., Rahimi, M., Stasz, C., James, S., 2012. What Contributes to Vocational Excellence? Characteristics and experiences of Competitors and Experts in WorldSkills London 2011.
- OECD, 2010. *OECD Reviews of Vocational Education and Training - Learning for Jobs*. OECD Publishing.
- Smith, H., Rahimi, M., 2011a. Modeling of Vocational Excellence: An International Perspective. Presented at the Research in VET: Janus- Reflecting Back, Projecting Forward:, Australian Vocational Education and Training Research Association, pp. 61–61.
- Smith, H., Rahimi, M., 2011b. *MoVE Australia Report*.
- UKSkills, 2009. Review of the team UK training and support programme. UKSkills, London, UK.
- UNESCO, 2012. *Youth and skills: Putting education to work (EFA Global Monitoring Report)*. UNESCO.
- Wilson, J.P., 2000. Citius. Altius. Fortius. Peritius: the Skill Olympics and skill competitions. *Ind. Commer. Train.* 32, 201–208.
- World Bank, 2013. *World Development Report: Jobs*. World Bank.

WSI, 2009. WorldSkills International Vision and Mission [WWW Document]. URL
http://www.worldskills.org/index.php?option=com_content&task=view&id=14&Itemid=350

Annex 1. WS competitor interview schedule

Note: a) given the name changes around UK Skills/WorldSkills (WS), interviewer needs to gauge at the beginning of interview what terminology they are familiar with; and b) background information sheet to be used in conjunction with interview schedule. WSC = WorldSkills Competition

Current employment

1. *So your occupation is X [stated on background information], what does this involve?*
2. *Your employer is X, what is the company's business? Probe: link to occupation and skill area.*
3. *Do you enjoy your job? Why/why not? Probe: Dimensions of job, any discretion, responsibility*
4. *If not in employment ask why?*
5. *Since WSC have you been invited/asked to sit on/attend any professional bodies/boards/associations?*

Skills competitions

6. *You competed at WorldSkills X. How did you first get involved with the WSC?*
7. *Why did you get involved in the WSC?*
8. *What did you know about WSC before you got involved?*
9. *From background information sheet check to see if competed in other skills competitions: If so, in what ways were these other skills competitions different? Probe: levels of competition, skill requirements etc.*
10. *What were you expecting from WorldSkills X?*
11. *Were your expectations from competing realised? In what way?*
12. *What personal sacrifices, if any, did you make to compete at WSC? Probe: personal time, missing out on events with family, friends, other things they had to give up, etc*

Preparation for the WorldSkills Competitions

13. *Tell me about your preparation and training for WSC? Probe: who and what it involved.*
14. *What was the best part about the WSC training?*
15. *Were there any downsides or problems by participating in the WSC training?*
16. *Describe the technical skills that you had at the start of the WS training and those you had after coming back from the WS competition.*
17. *Describe the social skills that you had at the start of the WS training and those you had after coming back from the WS competition.*
18. *What were the most important things you learned as part of this preparation/training? Probe: team working, decision making, setting goals, enterprise, working under pressure, mental competition training, other skills such as presenting etc*
19. *From these what were the three most important?*

Training for WSC and past and present training in the workplace

This next set of questions is about how your training for WSC relates to your training and work with your employer.

20. *Did you receive any training at work for your job?*
21. *How would you describe the difference between training you had for the WSC and training for*

<i>your job? Probe: differences in terms of content, approach, intensity, similarities etc, examples.</i>
22. <i>Did your WSC training contribute to your work—did it help you perform better at work or teach you things you could use at work? (If yes, ask next question)</i>
23. <i>Can you give me specific examples of how your WSC training contributed to your work? Probe: which skills/knowledge are important in the workplace.</i>
24. <i>Did you training in the workplace help you with WSC? Probe: how, why?</i>
Impact of WSC on the individual
25. <i>Why did you compete in WSC? What did you hope to gain from the experience? Probe: skill level, status, future potential for career or earnings etc</i>
26. <i>Looking at the list of benefits, can you see any that would apply to you from your WSC experience? Probe: which ones, why</i>
27. <i>Can you think of any other benefits?</i>
28. <i>Have there been any negative aspects to participating in the WSC?</i>
29. <i>Did you learn things through participating in the competition that you did not learn at school or work? Probe: specific examples.</i>
30. <i>How important has that learning been to your future job or career?</i>
31. <i>Has your way of thinking about your occupation/job changed as a result of your participation in the WSC?</i>
Economic benefit of WSC participation
32. <i>Have you changed your job or your employer since your participation at WSC?</i>
33. <i>If with same employer: did you receive a pay rise after your participation in WSC? Probe: financial recognition, change of responsibility.</i>
34. <i>Did your participation result in any other benefits—for example were you given greater responsibility or discretion in your job? Did you get any special recognition?</i>
35. <i>Were any job offers made to you after WSC participation?</i>
36. <i>Did your participation at WSC impact company performance in any way? How?</i>
37. <i>If changed employer or changed job with same employer, or became self-employed ask): Were these changes at all related to your participation in WSC (e.g. got a job offer after participation, got a promotion at same place of employment). Ask for examples.</i>
38. <i>If with different employer: why did you leave? Probe: better job/ better pay/faster promotion</i>
39. <i>If self-employed: did you become self-employed before or after WSC? Probe: why, what prompted this, e.g. entrepreneurial flair, saw others do it.</i>
40. <i>If self-employed before WSC: Do you get more work as a result of participating in WSC? Probe: type of work</i>
41. <i>Do you have a better reputation?</i>
42. <i>Can you charge more?</i>
43. <i>How many employees do you have? Probe: training and support offered for WSC participation, measure of change, built-up workforce etc.</i>
Benefits to employer and other colleagues
44. <i>Do you think your employer benefited from your participation/success at WSC? If yes, how? Probe: better performance, enhanced skills, information on world-class standards, positive</i>

<i>influence on other colleagues, organisational impact etc. If self-employed now then employer at time. If self-employed before then this set of questions redundant.</i>
45. Did your employer ask you about your training and preparation for WSC? Probe: why/why not
46. Did your work colleagues know about your participation in WSC? Probe: how and what did they say/do positively or negatively.
47. Were you the first employee to compete? Probe: why employer supported, how many others.
48. Has your employer encouraged others to compete since you did? Probe: how many, why/why not.
Benefits to college/university and other students
49. Do you think your participation in the WSC had an impact on your college/university (tutors, teaching approach, content, fellow students becoming more interested in you/in what you are doing/in the skill area)? Probe: how, recruitment.
50. Did your tutors ask you about your training for the WSC? Probe: areas of questioning and interest.
Benefits to family, friends, other associates
<i>The next set of questions is about how your WSC may or may not have benefited your family and friends such as giving them encouragement to try new things, the experience of your success etc.</i>
51. Did you discuss the WSC before, during or after with your family/friends? Probe: anyone in particular, why interested/supportive
52. Looking at the list of benefits, can you see any that would apply to your family and friends from you having been a WSC competitor? Probe: examples, in what way.
53. Can you think of any other benefits? If so, what are these?
Benefits to the industry
54. Does your success raise the profile of the industry itself, help to attract new talent and at the same time raise standards?
Benefits to society
55. Who do you think are the most important beneficiaries of WSC?
56. Do you think WSC have any effect on wider society? Probe: raising awareness of WSC, vocational education and apprenticeship.
57. Can you give me any examples of how your participation may have had a wider impact? Example: being invited to school to talk to young people or charitable activity within the local or wider society etc.
Summary
58. What do you think are the most important benefits of WSC? Why?
59. Where do you see yourself professionally in 5 years time?
60. Where do you see yourself in 10 years time?
61. If you could change training of young people in colleges for employment and for WSC, what would that be?
62. If you could change training of young people in workplaces and for WSC, what would that be?
63. Is there anything else you would like to add?

Annex 2. Interviewees

WS competitors	Year of participation	Current or former employer	FE college tutor/university lecturer	Family member/friend
1	2005		X	
2	2005		X	
3	2005			
4	2005		X	Parent
5	2005			Spouse
6	2005		X	
7	2007	X	X	
8	2007	X	X	Parent
9	2007	X		Spouse
10	2007		X	Parent
11	2007	X	X	Parent
12	2007		X	Friend
13	2007	X		Sibling
14	2007		X	Spouse
15	2007		X	Parent
16	2009	X		Parent
17	2009	X		
18	2009			Parent
19	2009		X	Parent
20	2009	X		Parent
21	2009			
22	2009	X	X	Parent
23	2009			
24	2009	X	X	
25	2009	X	X	Parent
26	2011	X	X	Parent
27	2011			
28	2011	X	X	Parent
29	2011	X	X	Parent
30	2011		X	Parent
31	2011			
32	2011	X X		Parent
33	2011		X	Parent
34	2011			Parent
35	2011		X	
36	2011	X	X	Parent
37	2011		X	Partner
38	2011	X		
39	2011	X		

Interviewed training managers

TM	Years of service
1	1996 - 2007
2	2005 - 2006
3	2004 - present
4	1985 - 2011
5	2003 - 2007
6	2002 - present
7	1996 - present
8	2005 - present
9	2011 - present
10	2006 - present
11	2005 - present
12	1998 - 2009

*the number of FE college tutors/university lecturers on this table exceed the number of actual interviewees because FE college tutors worked with more than one WS competitor.

**One interviewed employer is not on the list as we have not interviewed their two employees who were competitors in 2009 and 2011.