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Employment and Young People with Autistic Spectrum Disorders: An Evidence Review

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Views expressed in this report are those of the researchers and not necessarily those of the Welsh Government

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1   Introduction to the evidence review

Context for the evidence review

1.1   The Welsh Government is aware that many young people with autistic spectrum disorders (ASD) face difficulties in the transition to employment from school, college or university (National Assembly for Wales, 2010). In December 2013, the Welsh Government made a commitment to a refresh of the 2008 ASD Strategic Action Plan, which will concentrate on diagnostic assessment services, post-16 transition pathways and improving employment opportunities for young people and adults (Thomas, 2013).

1.2   In order to inform the development of the refreshed ASD Strategic Action Plan, and in response to concerns about post-education employment outcomes of young people, the Welsh Government commissioned independent research to investigate the extent and nature of employment outcomes and barriers to employment for young people with ASD living in Wales. The key objectives of this research were:

- To map the extent to which young people with ASD living in Wales secure employment
- To identify the barriers to employment faced by this group of young people
- To document which of these barriers are being reduced or overcome in Wales currently and which are not
- To identify and document initiatives in Wales and elsewhere which are working effectively to overcome or reduce barriers to employment for young people with ASD
- To consider how any un-addressed barriers might realistically be reduced or overcome.

1.3   The research was conducted from November 2012 to October 2013 and involved three main phases:

- A scoping stage which involved informal interviews with key stakeholders; secondary analysis of national statistics on employment outcomes for young people with ASD; and an evidence review to highlight barriers to employment for young people with ASD and how these might be addressed
- Interviews and survey work with young people with ASD and their families to understand more about the lived experience of securing, or trying to secure, employment after leaving formal education, the nature of support received and the difference this made to any employment outcomes achieved
- A practice survey and follow-up research with mainstream, pan-disability and ASD-specific employment support services currently operating in Wales in order to understand the extent to which they are able to address the key barriers to employment for young people with ASD.

1.4   A full description of the research methodology, including the methods used for undertaking the evidence review, is given in Appendix A of the main research report (Townsley et al, 2014). The purpose of this evidence review was to examine material (formal literature, grey literature, data from scoping interviews with key stakeholders) relating to the transition to employment for young people with ASD in an international context in order to inform the direction and development of materials (topic guides for interviews, text for the online survey) for the research study in Wales. This separate volume now presents the results of the evidence review in order to:

- Document the factors that make transition to employment difficult for young people with ASD and the continued barriers they face once in work
- Consider the nature and extent of current evidence about how these barriers can be reduced or overcome.

2 Employment outcomes and young people with ASD

2.1 Research conducted in 2007 (Rosenblatt, 2008) by the National Autistic Society (NAS) suggested that just 15% of adults with autism were in full time employment, 9% were in part time employment and 66% were not working at all (including voluntary work). The research also found that 26% of graduates with autism were unemployed and over 60% of all people with ASD were financially reliant on their families. The findings were based on the results of a questionnaire survey for adults with autism and their families or carers. The survey was distributed to NAS members and organisations via the NAS website. 1,179 people with autism aged 18 upwards replied to three questions relating to employment and financial support. Forty two percent of adults with autism completed the questionnaire on their own, 18% completed it with support and 40% of respondents were parents, carers or others completing it on behalf of someone with autism.

2.2 The NAS conducted another large-scale UK survey of people with autism in 2012 (Bancroft et al, 2012). The survey found that a third of those aged 16-24 with autism were 'not in employment, education or training' (NEET) and suggested that this was more than double the number among the general population. The survey also found that 37% of adults with autism had never been in paid employment and that 41% of people over the age of 55 had spent more than 10 years without work. Among those that were currently unemployed, 59% did not believe, or did not know, if they would ever get a job.

2.3 Data submitted by English local authorities to the Department of Health suggest that just 1.5-6.5% of adults with autism were in paid work in England in 2010 (Copeland et al, 2011). This finding is based on responses from eight local authorities (out of 150 in England) who supplied data relating to the employment of adults

with ASD. Given such a low response, the data may not present a wholly accurate picture of the national rate of employment for adults with ASD in England.

2.4   There is some evidence to suggest that employment rates for young adults with autism may be lower than those for other groups of disabled people. Recent research (Roux et al, 2013) to explore the post-school employment experiences of young people with ASD in the United States, compared their employment outcomes with those of people with other types of disability (learning disability, specific learning difficulties, emotional disturbance and speech and language impairments). Using longitudinal data from a national database of young people receiving special education services, the researchers found that of the 620 people in the ASD sample who had left school 10 years previously, only 53% had ever had paid work, in comparison to 80% of those with speech and language impairments and 62% of those with learning disabilities. Only one-third of the adults with ASD were currently employed, with just 21% in full time work.

2.5   Based on cohort studies carried out in the USA and Sweden, it seems that the percentage of people with ASD who **ever** gain employment in adulthood can vary between fewer than 8% (Billstedt et al, 2005) and 56% (Eaves and Ho, 2008). However, some of the so-called 'employment outcomes' quoted by these studies included sheltered workshops and day centre provision. Nevertheless, other researchers have pointed out that it is important to look at the full range of outcomes, including voluntary work and day centres, since those may be meaningful outcomes for some people (Taylor and Seltzer, 2012b).

2.6   Research evidence also points to the fact that employment outcomes may take longer to achieve for people with ASD than for other groups. Shattuck et al (2012) found that approximately

one third of young people with ASD left school in the USA without any job prospects or education and that it could take three to four years to gain employment after school. Other evidence from North America (Farley et al, 2009) shows that given time, approximately one third of all people with ASD who seek paid work may achieve their goal after a period of 20 years or more. This indicates that employment rates for young people with ASD are likely to be significantly lower than for the ASD population as a whole. This is also true for the general population. Rates of employment for young people aged 16 to 25 within the general population are generally lower than those of all working aged adults. Labour Force Survey figures for 2011 show that the unemployment rate in Wales was 8.7% for those aged 16 to 64, whilst for young people aged 16-24 it was 22.5%.

2.7   The research conducted by the NAS and cited above (Rosenblatt, 2008) found that 70% of people with autism on out-of-work benefits said they would like to work. Similarly, data from learning disability partnership boards in England (Learning Disability Partnership Board Progress Reports 2010/11 submitted to the North East Learning Disability Health Observatory) suggest that even at the most severe end of the spectrum, people with ASD and learning disabilities are likely to want to work, with 65% of people with learning disabilities stating that they want to work (Roberts et al, 2012).

2.8   Lack of work has been shown to have an adverse effect on the mental health and general life prospects of people with ASD (Howlin, 2012). Conversely, having a job (with support if needed) can promote increased independence and self-esteem, provide learning opportunities, structure to the day and a predictable environment, all of which are beneficial to many people with ASD (Welsh Assembly Government, 2010). Research by Garcia-Villamisar et al (2007) also found that a paid job in the open

market increased quality of life for people with ASD in terms of environmental control and perception of personal change, compared with those who worked in sheltered workshops.

2.9   People with ASD can have valuable skills to offer employers (National Audit Office, 2009). Some people with autism may have a particular skill or specialised interest that can be linked with paid employment. Some jobs, particularly those that involve routine, predictability and precision may be well suited to people with ASD. Similarly, work which involves logical thinking, sequencing and organisation will also require the sort of skills that someone with ASD may have (Welsh Assembly Government, 2010).

2.10   However it is important to remember that whilst they may seem to be 'typical jobs' for some people (Segar, 1997), these will not be universally true as people are individuals with their own different skills and interests (NAS, 2012). A recent campaign by the NAS (2012) highlights that, as well as having individual strengths and talents, some people have particular skills in many of the following areas:

- Problem-solving skills and attention to detail
- High levels of concentration
- Reliability and loyalty
- Technical ability and specialist skills and interests, such as IT
- Detailed factual knowledge and an excellent memory
- Job retention
- Resourcefulness.

2.11   Some employers recognise these attributes and actively recruit people with ASD. For example, in England, BT worked with the National Autistic Society's supported employment service, Prospects, to recruit people with autism as part of their diversity policy. This involved making reasonable adjustments to the working environment and offering in-work mentoring and support

(National Audit Office, 2009). The software and IT company SAP has recently made a commitment to employing people with ASD to at least 1% of its workforce in Ireland, the US, Canada and Germany. This followed a successful pilot project carried out at SAP in India which found that the teams with ASD members saw measurable productivity gains (Pritchard, 2013). A report by the Equalities and Human Rights Commission (2011) also states that GCHQ policies have been designed to actively encourage the employment and retention of people with neuro-diverse conditions, notably autism.

2.12   The NAS (2012) also provides several case examples describing how employers have recruited people with ASD to roles where they have excelled and brought benefits to the business. However, the fact that so few people with ASD are in paid work still means that significant barriers to employment for this group exist.

3 Barriers to employment for young people with ASD

3.1 Barriers to employment for people with ASD appear to be well documented in the available formal and grey literature. Many research studies have focused on the experience of employment for people with ASD and the barriers they face in considering, seeking and keeping work (Forsythe et al, 2008). There are also a number of personal accounts, from people with ASD, about the employment difficulties they have faced and practical suggestions and tips about how these might be overcome (Grandin, 2012; Johnson, 2004; Meyer, 2000; Segar, 1997).

3.2 In addition, some literature and resources exist which highlight successful strategies for (a) people with ASD who want to work and their families (e.g. Welsh Assembly Government, 2010); (b) employers considering recruiting people with ASD (e.g. National Autistic Society Northern Ireland et al, 2011); and (c) provider organisations offering supported employment to people with ASD (e.g. Howlin, 2012). For example, the National Autistic Society has published a series of resources which includes a guide for employers, and a series of leaflets for people with autism on having a job, different kinds of work, how to start looking for a job, support to help you get a job, interview tips, rights under the Disability Discrimination Act, when you start work, and information for families of people with ASD who want to work (National Autistic Society, 2004).

3.3 We asked about barriers to employment in our scoping interviews with key stakeholders and their thoughts, along with findings from the literature review, are included in this section.

Barriers to considering employment

Employment may not be considered as a post-school option

3.4 For young people with ASD, barriers to considering employment can start at school. From Year 9 onwards, all pupils with ASD

should be encouraged to think about career options, and by Year 11 all pupils should have been offered the opportunity to undertake a work experience placement. For those with statements of SEN, or Individual Learning Plans (ILPs), there is an entitlement to an annual review at Year 9 which focuses on drawing up a transition plan. Considering employment options may be a legitimate part of the transition planning process for some young people. However, research conducted in Wales with young people with learning disabilities suggests that the most common post-school destinations are FE college or day service placements (Beyer, 2008). It appears that employment may rarely be considered as a post-school option for young people with learning disabilities, including those with ASD (Beyer and Kaehne, 2010). This was also a finding from research conducted on employment support for young people with ASD in England (Forsythe et al, 2008) and in the US (Lee and Carter, 2012). Discussion about employment was described as 'not a feature of transition services' and it was felt that transition support was often geared towards assisting young people into further and higher education (Forsythe et al, 2008).

3.5   There may be perfectly good reasons why further and higher education destinations are the preferred route for the vast majority of school leavers with ASD. Indeed, the UK Government has agreed that after 2013 the education leaving age will rise to 17 and from 2015 it will rise again, to 18 (Parliamentary Select Committee for Education, 2011), in response to concerns about levels of youth unemployment. However, the English Department of Health's 'Getting a Life' project (Department of Health, 2011) highlighted the importance of building in the future goal of employment to transition planning with young disabled people from Year 9 onwards, even if this is not a desired post-school destination at the point. The research and development work undertaken for the 'Getting a Life' project suggests that person

centred annual reviews from Year 9 onwards should consider young people's career aspirations and how on-going curriculum options and Year 10 work experience can be organised to best support these.

3.6 Lee and Carter (2012) found that in the US, as transition planning often focuses on further education, socially related challenges can go unnoticed for young people with ASD. They suggest that 'navigating the social demands associated with the job search process, co-worker and supervisor relationships, and disability disclosure are likely to represent core challenges for young people with high functioning ASD' (p990). Moreover, Cimera et al (2013), working in the US, found that access to appropriate employment-related support at an early stage in the transition process can have a significant impact on enabling young people with ASD to achieve better vocational outcomes as adults. Therefore, it is essential for schools to work proactively, along with other agencies, to provide formal support for job seeking, social skills training and for direct experience of work placements.

There is a possibility that not all young people with ASD will access, or be eligible for, careers advice and support at transition

3.7 In Wales, careers advice and support at transition is co-ordinated by schools in collaboration with Careers Wales, local authority transition teams and transition key workers (where available). All statemented young people with ASD are entitled to an individualised careers information, advice and guidance from a Careers Wales specialist adviser from Year 9 onwards and up to age 25 if required. Careers Wales has link advisers with all special schools and in mainstream schools Careers Wales advisers work closely with Additional Learning Needs Co-ordinators (ALNCos) to identify young people with ASD so that they receive appropriate careers information, advice and guidance services. This includes input and advice to the

transition planning process, for example: an interview with the young person, discussions with parents, attendance at Annual Reviews and the drafting of a Learning and Skills Plan[1] when the young person chooses to leave school for FE, HE or work based learning.

3.8   Young people with ASD who are not statemented, or who do not have a formal diagnosis, are also entitled to a service[2] from Careers Wales if they are receiving a differentiated education following a formal review. This includes those whose needs have School Action or School Action Plus status. In mainstream schools, the onus is on ALNCos to identify young people with ASD and to seek input from Careers Wales.

3.9   Since young people with ALN are a priority group to receive enhanced services from Careers Wales, young people with ASD will continue to be eligible for Careers Wales services up to their 25th birthday. Post-16 provision could involve a range of pre-vocational and vocational learning programmes at either sixth form, further education (FE) college, or via contracted work based learning (WBL) programmes run by private and third sector organisations. Whilst undertaking these programmes, young people should continue to have access to a Careers Wales adviser, and/or to generic in-house careers and employment preparation and support from the provider organisation, although there is no obligation on providers to supply individualised and/or ASD-specific input.

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[1] Pursuant of section 140 of the Learning and Skills Act 2000, Welsh Ministers have a duty to arrange an assessment for individuals who have a learning difficulty or who are considering post-16 education or training. The assessment will lead to a report which identifies a learner's education and training needs and the provision of support required to meet such needs. Careers Wales are commissioned by the Welsh Government to undertake the assessment, named the Learning and Skills Plan.
[2] The service that Careers Wales offers to non-statemented young people with ASD includes careers guidance and signposting careers pathways and opportunities from a generic adviser.

3.10   Young people with ASD who have neither a formal diagnosis, nor are receiving differentiated support through School Action or School Action Plus interventions are not eligible to access local authority transition team or transition key workers, where they exist. Since Careers Wales relies on school and local authorities to identify pupils with ASD, it could be possible for pupils with ASD without a formal diagnosis not to be identified via the usual systems. However, the remit of Careers Wales advisers includes working with schools to identify young people who are at risk of becoming NEET ('not in education, employment or training'), or who are not on track in terms of careers management and vocational aims. Consequently, young people with ASD, who have no formal diagnosis or whose needs have not been formally recognised through existing systems, may well be picked up at this stage.

3.11   Careers Wales has recently restructured and merged six companies into one. Since April 2013, the newly formed, single company has been fully owned by the Welsh Government and will continue to offer information, advice and guidance services to young people. Discussions are ongoing between Careers Wales and the Welsh Government as to the new company's remit and its work with young people with additional learning needs (ALN). Areas for development may include more emphasis on identifying young people who need a service but whose needs have not been formally recognised through existing statutory channels, which would potentially include pupils with ASD who have 'fallen through the net'. However it is worth highlighting that there will always be some young people with ASD who choose to exclude themselves from transition support, even where it is offered to them (Holtom et al, 2013; Forsythe et al, 2008).

Transition support services may lack knowledge and understanding of the needs of young people with ASD

3.12　In England, the Connexions service (which has since been replaced by the National Careers Service) was criticised by people with ASD, families and professionals for its lack of awareness of the support needs of young people with ASD at transition (Forsythe et al, 2008). Concerns included: lack of knowledge of ASD, high staff turn-over, lack of contact between advisers and having a short term focus. In Wales, all Careers Wales specialist advisers have recently received ASD awareness training from the NAS and Autism Cymru, funded by the Welsh Government as an action resulting from the ASD Strategic Action Plan.

Lack of access to work experience placements

3.13　Currently Careers Wales facilitates work experience for school students via the national Work Experience Database, which is accessed via the Careers Wales website. The database enables all schools to search for work experience vacancies available by type and geographical area. Evidence from the scoping interviews, however, indicates that some schools and colleges continue to find it hard to source suitable and appropriate work experience placements for young people with ASD and may rely on a few, sympathetic employers who are known to be ASD-aware. In HEIs, most young people are expected to source their own work placements, which can be very difficult for those with ASD. Research shows that access to appropriate and timely work experience is an important factor in both gaining future employment and in helping to consider different work options and for young people with ALN, may be best sourced through external supported employment agencies rather than by education providers (Beyer, 2008).

Variability of pre-vocational training

3.14 Evidence from the scoping interviews indicates that many young people with ASD may have few opportunities to discuss their employment aspirations whilst at school, college or university. For example, scoping evidence suggested that some transition key workers find they are having conversations about work options for the first time with some young people with ASD on their caseloads. Moreover, in Wales, there appears to be significant variability in terms of access to pre-vocational preparation at both school at college (Beyer, 2008). Some schools and colleges offer well-structured modules from established work preparation programmes (such as those offered by Agored Cymru or ASDAN), whilst other providers rely on their own work awareness curricula or provide no input at all. Patterson and Rafferty (2010) reported on a small-scale study in Ulster based on interviews with teachers about the ways in which schools prepare pupils with ASD for the world of work. They found that special schools tended to use behaviourist techniques, and taught social skills directly. Mainstream schools, however, were less skilled in preparing pupils with ASD for work, a finding also highlighted by a Scotland-based study (Richards, 2012).

3.15 Many young people with ASD may have fixed, and possibly unrealistic ideas about the sort of work they wish to undertake in the future. Without early and regular access to pre-vocational training and discussion about the world of work, young people's fixed aspirations, if unrealistic, may create a barrier to considering other options which may be difficult to overcome (Hillier et al, 2007).

Families' concerns about employment

3.16 A key theme from the scoping interviews was the barrier created by families' concerns about employment for their son or daughter with ASD. Some families have specific fears and

misunderstandings in relation to the benefits system and how the young person's employment will impact on the household income as a whole. There may be fears that the young person, or family, will be financially worse off in paid work (Tucker et al, 2012). Others may worry about how their young person will cope in a work environment or be perceived by colleagues or employers (Graetz, 2010). However, it is well established (Lee and Carter, 2012; Forsythe et al, 2008; Beyer, 2008; Hillier et al, 2007) that support from parents and carers is a crucial factor in the consideration of employment as a positive and feasible post-education option for young people with ASD.

Barriers to seeking employment

Lack of awareness of ASD by Jobcentre Plus services

3.17   Statutory employment services have a duty to help young people with ASD find and keep work. Every Jobcentre Plus service in Wales has a Disability Employment Adviser (DEA) and it is the DEA's responsibility to record that an individual has an ASD and what reasonable adjustments need to be made when attending the Jobcentre (Welsh Assembly Government, 2010). Evidence from the scoping interviews, however, suggests that Jobcentres are confusing and intimidating places for many people with ASD. Research by the National Audit Office (2009) found that many DEAs working with people with ASD in England had not received autism-specific training. Respondents to this study felt that 'lack of awareness of autism had led to inappropriate provision being offered and that advisers did not always signpost appropriately, collect or share appropriate information or correctly identify the needs associations with their condition' (National Audit Office, 2009, p20). It is not clear as to the extent that DEAs in Wales have received autism awareness training, despite a commitment by the Welsh Government to funding this under actions resulting from the ASD Strategic Action Plan. One stakeholder suggested

that DEAs in Wales may not be permitted to expand their role to encompass more ASD-specific support since the Jobcentre Plus model of support is owned and led by the Department for Work and Pensions and not currently devolved to the Welsh Government. Nonetheless, the role of DEAs can be crucial in signposting benefits and referring people on to relevant provision (such as the Work Programme, Work Choice and other employment support schemes).

Employer attitudes and discrimination

3.18 Many stakeholders highlighted low and inaccurate awareness of ASD amongst employers. People talked about employers' knowledge of autism being based on media stereotypes associated with ASD. Employers may be fearful of the behaviour traits of people with ASD and of the effect of these on their business, resources and other employees. Thus they may be unwilling to consider employing people with ASD (Forsythe et al, 2008). There is a particular issue about the need for employers to understand specific aspects of the way workplaces could be adjusted for their employees with autism, including the provision of advocacy (Griffith et al., 2011), precision in communicating tasks, as well as flexibility about the way in which tasks were accomplished (Hagner and Cooney, 2005). These authors suggested that providing individual support to employees with ASD was not seen as unusual by these employers, but part of their normal practice for everyone, and Ridley et al (2005) make the same point about employers in Scotland.

3.19 The National Audit Office (2009) suggests that to allow people with autism to fulfil their potential in the workplace, training, support and awareness raising work needs to be offered to employers and employees. Further, it recommended that work should be undertaken at a national level in England with employer organisations to raise awareness of the benefits of employing

people with autism and what adjustments might be needed to support them.

3.20 In Wales, Robert Lloyd Griffiths from the Institute of Directors has been appointed as the world's first Autism Employment Ambassador. His role is to raise awareness of ASD amongst Welsh employers and to highlight how business can benefit from the skills, knowledge and attitude that people with ASD can bring to the workplace. The role is currently funded by the Welsh Government and evidence from the scoping interviews indicates that it has begun to have an impact on the awareness and understanding of ASD amongst employers across Wales. Nevertheless, there is still much work to be done in terms of changing attitudes of business leaders, particularly within the context of the current job market and poor economic climate. It is unclear at present whether this important and ground-breaking role will continue to be supported, by Welsh Government, in its current form.

Searching for a job

3.21 Evidence from the scoping interviews suggests the traditional process of searching for a job, using the internet to do online searches of advertised vacancies, can be particularly hard for young people with ASD. Online searches can produce many hundreds of potential employment opportunities and for people with impaired social imagination, trying to envisage what these roles might involve in order to limit the search to a manageable number of hits, can be a huge barrier. Another widely used job search strategy is 'word of mouth', or networking, which again presents problems for people whose social networks may be limited or who find it hard to communicate socially. However, evidence suggests that this strategy may work when family and friends use their personal contacts to help a young person with ASD find a job (Howlin, 2004). Indeed, several people interviewed

as part of the scoping work described individual situations where this had happened for people they knew, or supported. Henn and Henn (2005) describe a job seeking process in which an employment development officer was employed by a family, using a personal budget, for a young woman with severe ASD and behavioural challenges. She was successful in finding a job, because of that personal approach.

The recruitment process

3.22 Most employers use standard techniques for recruiting staff, such as requesting a CV and/or completion of an application form, and following this up with an interview for shortlisted candidates. Some employers also use other recruitment processes, such as assessment of job-related tasks and behaviour and personality screening. All of these components rely heavily on social and communication skills (National Autistic Society, undated 1). They also entail the need to tailor one's skills and experience in a way that focuses on strengths and plays down weaknesses (Welsh Assembly Government, 2010). A Scottish based study (Richards, 2012) analysed secondary data sets, in order to identify both barriers and solutions within the workplace, and found that the recruitment processes of many employers discriminate against applicants with ASD.

3.23 Job descriptions often include generic skills that are not essential for the job to be carried out well, such as 'good verbal communication skills' or 'good at working as part of a team'. These sorts of skills are not necessary for all jobs and may put off a person with ASD from applying for a role that they might be good at (National Autistic Society, undated 1).

3.24 Face to face interviews require skills in social interaction, social communication and social imagination, all of which are impairments specific to people with ASD. People may have particular difficulties in thinking abstractly in response to 'what if?'

questions (National Autistic Society, undated 1). Research conducted by Forsythe et al (2008) found that people with ASD have difficulty when questions are open and not direct and find it hard to understand nuances of interview questions.

3.25   People with ASD may also have huge difficulties in 'selling themselves' in a positive and confident way (Welsh Assembly Government, 2010), understanding body language, maintaining appropriate eye contact, varying the tone of their voice and finding the appropriate level of formality (National Autistic Society, undated 1). Many people with ASD experience low self-esteem and a lack of confidence in their ability to work (Lees, 2004; Lipski, 2003) which can affect their ability to succeed at interviews (Lees, 2004) and very often means that well-qualified individuals are under-employed (Hurlbutt and Chalmers, 2004).

Barriers to keeping a job

Social barriers

3.26   The literature review and scoping interviews highlighted the many social barriers experienced by young people with ASD who have found employment. People with ASD may often find the social aspect of employment more difficult than the job itself, and accounts from people themselves describe the exhaustion brought on by 'constantly running a neuro-typical emulator' and the stress caused by anxiety about other people (Hurlbutt and Chalmers, 2004).

3.27   Other social issues faced by people with ASD in work are caused by not understanding the subtle, unwritten or hidden messages in workplace communication (Howlin, 2012; Richards, 2012). For instance, an American based review of the literature (Higgins et al., 2008) discussed team work issues, interpretation of body language and difficulty in adhering to standards of conduct. Howlin et al (2005) also mention social difficulties amongst

people in the UK who had received specialist employment support.

3.28   Difficulties in establishing relationships and interacting with colleagues may lead to misunderstandings or crises and can cause people with ASD to leave jobs they enjoy, or to be dismissed (Wallis, 2012; Tucker et al, 2012; Hurlbutt and Chalmers, 2004). Similarly, a lack of knowledge, or awareness, of the social barriers experienced by people with ASD may lead to their exclusion by colleagues or managers. Writing in the Guardian, Wallis (2012) describes how two young women with ASD were dismissed or suspended from their jobs for not adhering to the 'unwritten rules' of the workplace, such as not publicly discussing colleagues' pay rises, or publicly questioning the actions of a senior colleague. When people lose jobs, or are made redundant, the psychological impact can be considerable and may make it hard for them to return to the labour market (Tucker et al, 2012). A recent survey by the National Autistic Society (Bancroft et al, 2012) found that among those people with ASD who have ever worked, 43% said they had left or lost a job 'because of their condition'.

3.29   A Scottish based study (Richards, 2012) analysed secondary data sets, in order to identify both barriers and solutions within the workplace for people with ASD. They found that many people with ASD were excluded by everyday people management practices such as task-based meetings, annual performance reviews and team-building events. This 'exclusion by stealth' may also be exacerbated by lack of awareness of ASD by managers, colleagues and human resources departments and an unwillingness of some employers towards making reasonable adjustments to ensure participation of workers with ASD in all work-related activities.

3.30   The National Autistic Society (undated 2) points out that exclusion
        from certain work-related activities including team social activities
        can be classed as bullying in the workplace and lists the following
        key ways in which people with ASD may experience bullying or
        harassment at work: rude remarks; jokes or remarks about the
        person's disability; being insulting; overbearing supervision or
        misuse of power or position; unwelcome sexual advances;
        humiliation in front of colleagues; physical abuse; not being put
        forward for promotion or training; giving tasks or deadlines that
        will never be met; exclusion from team and social events;
        spreading malicious rumours; making uncalled for comments
        about job security. The National Autistic Society survey cited
        above (Bancroft et al, 2012), suggests that around a third of
        people with ASD who had ever worked had experienced bullying
        and said they had received unfair treatment or discrimination at
        work because of their autism.

Cognitive barriers

3.31   Some studies describe in detail the cognitive issues people with
        ASD face, including concrete and literal thinking (Patterson et al.,
        2010), leading to difficulties with time keeping, sequencing and
        organisation of work tasks (Griffith et al, 2011; Burke et al, 2010;
        Howlin et al, 2005; Howlin, 2008). For people with ASD who also
        have a learning disability, a number of common cognitive issues
        face those pursuing employment such as low literacy and
        numeracy skills and difficulties learning tasks and transferring
        learning from one setting to another (Beyer and Kaehne, 2010).
        Cognitive difficulties can cause knock-on effects, since lack of
        understanding can lead an employee with ASD to resort to
        behaviour patterns which are not understood by others in the
        workplace (Burke et al, 2010).

Sensory barriers

3.32   Many people with ASD may be overwhelmed by sensory and
environmental factors in a busy workplace. People with particular
sensitivities to noise, smell or colour may experience sensory
overload, stress and confusion in what appears to be a normal
workplace environment (Wallis, 2012). For example, strongly
coloured computer screens, the scents of industrial cleaning
products or colleagues' perfume or aftershave, may all create
barriers to concentration and ability of workers with ASD to
engage successfully at work. Davidson (2010) analysed 45
autobiographies of people with ASD, using a critical discourse
approach, and found that many people suffered from sensory
mingling and confusions exacerbated by fluorescent lighting and
the hum of electrical appliances such as computers.

Workplace stress and anxiety

3.33   Many people with ASD may experience extreme feelings of stress
and anxiety in social situations, or when established routines or
expectations change. For example, situations such as IT failures
or equipment breakdown can be very stressful for people with
ASD (National Autistic Society, 2012). In the workplace, this can
lead to inappropriate behaviour, such as verbal outbursts, or
challenging behaviour as a response to the feeling of being
anxious or overwhelmed (Patterson, 2010; Howlin et al, 2005).
Griffith et al (2011) carried out an in-depth qualitative study of
eleven people aged 37 to 57 living in Wales, which focused on
generic aspects of adulthood. Within this analysis, barriers to
work are mentioned, which include the fact that supervisors at
work did not understand ASD, the need for precise instructions
about tasks, and the difficulties people experienced with
socialisation. People experienced additional anxiety and stress
because of these problems, which made work feel overwhelming.

Transport to and from work

3.34   Evidence from the literature review and scoping interviews
        suggested that most young people with ASD do not drive and
        may have problems travelling independently (Forsythe et al,
        2008). Where jobs are at a distance and require travel, people will
        need to use public transport or to rely on a lift from family or
        friends. People with ASD may find it very stressful to travel at
        rush hour on full trains and buses or to travel late at night or after
        dark. The high cost of travel to and from work can also be
        prohibitive. All of these factors may limit the choice of work to a
        young person's local area.

4   How barriers to employment can be overcome

Considering employment options and how these can be supported by the curriculum from Year 9 onwards

4.1   From Year 9 onwards, all pupils with ASD should be encouraged to think about career options, and education providers should consider how these discussions can be supported by the curriculum. For those with statements of SEN, considering employment options should be a legitimate part of the transition plan drawn up at the Year 9 annual review (Beyer and Kaehne, 2010; Department of Health, 2011), even if this is not a desired post-school destination at the point. Person centred annual reviews from Year 9 onwards should consider young people's career aspirations and how on-going curriculum options and Year 10 work experience can be organised to best support these (Department of Health, 2011). Early transition planning relating to employment leads to better vocational outcomes for adults with ASD in the longer term (Cimera et al, 2013).

4.2   Both in schools and in colleges, access to good quality pre-vocational training and opportunities for discussion about the world of work appear to be the most essential elements of vocational preparation for young people with ASD (Lee and Carter, 2012). In particular this US based study concluded that it was particularly useful for schools to organise appropriate work experience placements, in partnership with supported employment agencies.

4.3   Hillier et al (2007) found that participants in their US based evaluation of a vocational support programme (9 participants) had not been well prepared by their schooling to understand what employment would mean for them. These authors recommend

better school preparation which includes parent collaboration, as well as social skills training.

4.4   In Wales, data collected by Autism Cymru's 'Deis Cyfle' project (Plimley, 2012) indicated that school leavers with ASD need at least the following skills, in order to prepare for employment:

- Learning how to use public transport
- Appropriate social behaviours
- Organisations skills
- Social skills
- Communication skills
- Social awareness
- Ability to express when they need help or more information
- Confidence and feedback on what they are doing.

Provide access to work experience placements

4.5   Research shows that work experience, through placements, internships or on-going voluntary work, is an important factor in both gaining future employment and in helping to consider different work options and may be best sourced through external employment agencies rather than by education providers (Beyer et al, 2013b; Wehman et al, 2013, Beyer, 2008; Lee and Carter, 2012). Crucially, taking part in work experience may enable families to feel more confidence and positive about employment as a realistic and appropriate option for their adult son or daughter (Beyer at al, 2013a; 2013b).

4.6   A recent article by Donald (2012) describes the link between work experience placement and actual employment opportunities for people with ASD, with reference to a scheme organised by the NAS and Goldman Sachs. The scheme offered supported work experience placements to 51 young people with Asperger syndrome, five of whom went onto get full time roles at Goldman Sachs, with several others gaining work elsewhere.

4.7   The introduction of the national Work Experience Database is a positive step, but it is not clear as the extent to which schools will be able to use it to pinpoint suitable employers for young people with ASD. Evidence from the literature review and scoping interviews suggests that a more proactive approach is required when seeking work experience placements for young people with ASD. For example, McDonough and Revell (2010) suggest that transition teams within secondary schools may need to 'reach out' to community resources, making links and referrals at an early stage.

4.8   A recent study in the US (Wehman et al, 2013) used a randomised control trial to assess the impact of a supported internship programme (Project SEARCH plus ASD Supports) on the employment outcomes for young people with ASD aged 18 to 21. Project SEARCH is a US-based model which uses an intensive nine-month job training programme to embed young people with learning disabilities, in their last year of school, as interns in large community businesses, such as hospitals, local government organisations or banks.   The project relies on a collaborative approach whereby the different agencies involved (education provider, employment support providers, host businesses) provide a range of resources including job coaching and instructional input. The Project SEARCH model has recently been trialled in England and evaluated by the Office for Disability Issues (Purvis et al, 2012). Wehman et al's (2013) research focused on an enhanced version of Project SEARCH which included added support for young people with ASD including: on-site intensive , systematic instruction; on-site support and consultation from an autism specialist; intensive staff training in ASD and the Project SEARCH model. After randomisation, twenty-one young people with ASD took part in the treatment group (Project SEARCH) and sixteen took part in the control group (education in their usual schools). Three months after the

programme finished, 87.5% of the treatment group and 6.25% of the control group had acquired employment. Wehman et al (2013) suggest that the following factors were instrumental in this success: effective collaborative working between the business and the other agencies involved; ASD- specific training for staff; the provision of ASD-specific support.

4.9 Within central south and south west Wales, the ESF-funded SEN Transition to Employment (Real Opportunities) Project has worked with young people aged 14-19 with a learning disability, severe and complex needs or an ASD to help them become as independent as possible in their adult lives. The project has worked closely with young people, their families and their schools to develop a transition plan for each young person that is person centred, and provides specific inputs to help young people achieve their goals[3]. As part of the programme offer, the Real Opportunities project has sought to provide work experience placements for all those young people aged 14-19 included in the project who want them. Although the project is pan-learning disability, it provides ASD-specific support, via the NAS and Remploy, to young people with ASD who have been referred. The on-going project evaluation (Beyer et al, 2013a) highlights that by June 2013 (30 months into the project), ASD-specific employment support had been provided to 38 young people with ASD (out of a total cohort of 558 receiving employment support), of whom 19 had received work experience placements. This had involved close working with local employers to facilitate appropriate placements, following vocational profiling and job matching. Young people and families interviewed as part of the project evaluation described the work experience component as one of the most important services they had received.

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[3] https://www.realopportunities.org.uk/

Ensure careers advice and support is available to all young people with ASD and their families at transition and post-FE and post-HE if needed

4.10   It is important that those providing careers advice and input to school leavers (such as Careers Wales, local authority transition services and Jobcentre Plus DEAs) have received appropriate training so that the important service they deliver can be accessible to young people with ASD. For those young people who are neither entitled to specialist one-to-one support from Careers Wales, nor access to a local authority transition service, Jobcentre Plus may be their focal point of contact so it is imperative that DEAs are trained to provide sufficient and appropriate careers support including advice to young people and their families about benefits and how work will affect them.

4.11   In some areas of Wales there are time-limited projects to support young people at transition and some of these (e.g. the SEN Transition to Employment (Real Opportunities) Project) include young people with ASD. But there is regional variation and young people in non-convergence areas of Wales are least well served by these mainly ESF-funded programmes.

4.12   Some young people will need further careers advice and support post-FE and post-HE. Evidence from the scoping interviews suggested that many FEIs and HEIs provide individualised and in some cases, ASD-specific, careers advice and support, to young people at college and university. But access across Wales and between institutions may be variable.

Making a business case to employers and highlighting the additional benefits adopting a 'disability confident' approach may bring

4.13   Research literature, specific projects and supported employment organisations themselves continually emphasise the need to present employers with the 'business case' for employing people with ASD (Ridley et al, 2005).

4.14 The National Autistic Society (2012) lists the benefits brought by employing a person with ASD, which include: higher productivity and reduced costs, innovative products, outstanding customer relationships, satisfaction and retention, stronger stakeholder relationships and reputation. (See also more about the business case for 'disability confidence' on www.edf.org.uk/disability-business-case). There is also some evidence to suggest that people with ASD may out-perform many non-disabled people in the same role, once 'reasonable adjustments' required by the DDA have been met. For example, Specialisterne is a Danish company which assesses, trains and employs people with autism as consultants in IT and other sectors with technically oriented tasks and jobs (data management, softer testing, quality control)[4]. Whilst not yet active in the UK, case study material written by the company itself, based on feedback from client employers, suggests that the consultants with ASD have demonstrated a higher level of attention to detail and have a flair for finding errors that other sub-contractors have not achieved (Specialisterne, undated 1 and undated 2).

Raising awareness of the valuable skills and abilities that young people with ASD may bring to a workplace

4.15 Repeated research studies emphasise the valuable skills that employees with ASD may bring to a workplace. For instance, Hurlbutt and Chalmers (2004) carried out in depth qualitative research with six adults with high functioning autism. Although the chief aim of the study was to analyse the difficulties these employees faced, it was also mentioned that they were more likely than other employees to be punctual, not to have sick leave, and not to waste time. These factors are emphasised in individual accounts (Henn and Henn, 2005), and in autobiographical research (Davidson, 2010). It is therefore felt to be vital to

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[4] http://uk.specialisterne.com/

present a positive view of the skills and benefits that people with ASD will bring to the workplace, instead of just focusing on their difficulties and needs (Hagner and Cooney, 2005).

4.16 It may be that employers themselves are good advocates, when they have had some experience of employing people with ASD (Hagner et al, 2005), and when they see that individualising work expectations can be useful for **all** employees. Thus successful employees with ASD can have a beneficial effect on the whole workplace culture.

Finding the most suitable jobs for young people with ASD

4.17 People with ASD can have valuable skills to offer employers (National Audit Office, 2009). Some people with autism may have a particular skill or specialised interest that can be linked with paid employment. However it is important to remember that whilst there may seem to be 'typical jobs' for some people (Segar, 1997), these will not be universally true as people are individuals with their own different skills and interests (NAS, 2012).

4.18 Evidence from the scoping interviews suggested that young people with ASD may need significant input and support to work out and define what are the 'right jobs' for them. Key components of a supported employment approach can help here, such as personal profiling, job analysis and job matching, whereby individual skills and job requirements are analysed on an individual basis and sensitively linked together (Howlin et al, 2005).

4.19 Particularly with those who have more severe learning disabilities and ASD, it may be particularly useful to break down the exact job tasks which will work for each individual (job analysis). For instance, Lattimore and colleagues (2002; 2003; 2006) report on a series of quasi experiments to test a tool for assessing task preferences amongst people with ASD and severe learning

disabilities. A pre-work multi choice tool was used, and then task choices were observed and recorded when at work; it was found that the tool could accurately predict what tasks people preferred.

Making reasonable adjustments to the recruitment process

4.20   Material gathered from the scoping interviews and grey literature (Welsh Assembly Government, 2010; NAS 2012; NAS undated) indicate that the following reasonable adjustments to the recruitment process can be beneficial to young people with ASD who are seeking work:

- Very clearly worded and unambiguous job advertisements
- Adjustments to wording of job descriptions to avoid unnecessary emphasis on 'generic' skills such as 'good verbal communication' or 'team player' if these skills are not actually central to the job role
- Tests instead of interviews to assess abilities of potential employees
- Two-way placement evaluation (work experience) instead of an interview
- Access to job coach or advocate to provide support during the interview if needed, and the opportunity to prepare a set talk in advance if possible
- Clear, advance information about what interview will involve and how long it will take
- Asking closed questions based on an individual's past experiences may be better than open, hypothetical questions
- Being aware that young people's eye contact and other body language may appear different from other candidates and should not be used as an indication of how they feel about the job
- Being aware that the person with ASD may interpret questions literally or give too much or too little information and be prepared to prompt or support them if this happens.

Making reasonable adjustments in the workplace

4.21   Evidence from the scoping interviews, formal literature and grey literature (Howlin, 2012; Welsh Assembly Government, 2010; NAS, 2012; NAS, undated 1, NAS, undated 4; Davidson, 2010) highlights that the following adjustments to the workplace can be of great benefit to workers with ASD:

- Providing a well-structured work environment away from general office traffic, visual distractions and clutter
- Understanding that certain sensory distractions (noise, smell, lighting, electrical equipment) can be distressing to people with ASD
- Adjustments to number of hours worked, and/or hours set to avoid rush hour travel
- Providing reassurance in stressful situations, e.g. by giving specific instructions about what to do when something breaks down or goes wrong (eg IT failure can be very stressful for person with ASD)
- Helping other staff be more ASD aware and to understand the employment-related needs and differences of someone with ASD
- For managers to provide sensitive but direct feedback and to recognised that brief, frequent reviews may be better than long, infrequent ones
- Access to a work place mentor, job coach, support worker, or supportive colleague (natural support) to assist with meetings or social communication when needed. Indeed providing support and training in the workplace (via work place mentors, job coaches, etc) may help to resolve issues before they escalate and may also help to get people reinstated if they are unfairly dismissed.

4.22   Howlin et al (2005) report on a longer-term follow up with qualitative data from 89 people with ASD who gained work. Once in work, the job support strategies that people most appreciated included: job coaches who 'knew the job'; having a direct point of contact in emergencies; strategies to help the employer and line manager through disability awareness; clear written guidelines

and timetables; and the active involvement of a line manager. There are also several personal accounts written by or with people with ASD which highlight some of the forms of support they have found particularly effective in keeping a job:

- Having an agreed space to go to when feeling stressed (Bulhak-Peterson, 2007)
- Preparing a script for answering the phone (Bulhak-Peterson, 2007)
- Written disclosure at the interview stage (Deimel, 2004)
- Having someone to phone when needed who know you as an individual (Deimel, 2004)
- Having one-to-one support in work from a job coach or similarly skilled employment-support professional (Henn and Henn, 2005)
- Employees with ASD themselves may need to be more 'up front' in asking questions when they do not understand something (Hurlbutt and Chalmers, 2004).

4.23   In addition, evidence suggests that the key supported employment components of work place analysis, job analysis and task analysis can be very effective when used to support the introduction of a person with ASD into employment (Hurlbutt and Chalmers, 2004; Howlin, 2012). For example, Howlin suggests that people with ASD will need very clear information about dress codes and an explanation of the unwritten social rules of a workplace. Hurlbutt and Chalmers suggest that people need to know what is expected in terms of productivity, types of tasks, breaks and rules. Other research recommend that what works is a pre-job orientation day or a try-out opportunity for new applicants and a consistent job schedule and job duties to avoid unstructured times (Hagner and Cooney, 2005). The Project SEARCH (plus ASD supports) programme researched by Wehman et al (2013) highlighted the provision of ASD-specific, intensive, systematic instruction using the principles of applied behaviour analysis as one of the key elements which contributed

to the high employment outcomes for those involved: 21 out of the 24 interns were in paid work three months post-programme.

4.24   There is a body of work about specific, very detailed approaches to explaining and sequencing job tasks (sometimes known as task analysis). For instance, Howlin et al (2005) suggest modifications to the work place such as clear written guidelines and timetables. Burke et al (2010) looked at the effects of behavioural skills training on learning sequencing skills and a 'cueing system' using an iPhone app. Allen et al (2012) evaluated the use of covert audio cueing to assist people with ASD performing shop 'walkarounds' as store attendants and Gentry et al (2012) provided three case studies of adults with ASD already in employment, and shows how they used iPods for prompts. Precin (2010) developed a method of using visualisation to help an employee with ASD learn the sequence of tasks to make a pizza. The method is well described, and includes photographs of the stages, with a precise method to visualise and verbalise the tasks involved. This intensive intervention appeared to work well in addressing a crisis that one employee was facing in his job. Van Laarhoven et al (2012) describe a video modelling tool for learning work tasks. It is noticeable how these studies tend to focus on the problems faced particularly by those with learning disabilities as well as ASD, and they particularly concern people who may have difficulties with organisation and sequencing, but seldom have any claim to address the important social needs of workers with ASD.

Disclosure of ASD to employers

4.25   Disclosure of ASD is a sensitive and difficult topic. People with ASD themselves who have written their own accounts of their employment experiences do not universally support disclosure as a strategy (Paradiz, 2009; Martin, 2005). Hurlbutt and Chalmers (2004) recommend that the employer should discuss with each

person with ASD their feelings about disclosure to others in the workforce, on the basis that each person's views will be different.

4.26   However, where employers have had successful experiences of employment people with ASD, they have seen that initial disclosure as essential. It enabled them to make reasonable adjustments for colleagues to be provided with information and guidance on autism to enhance understanding (Lee and Carter, 2012; Higgins et al, 2008). Therefore, these authors suggest that successful job preparation, from schooldays onwards, has to prepare young people with ASD about how to discuss their own disability and their needs.

4.27   One way of managing the disclosure dilemma was described by Martin (2005), who explores the idea of a 'personal statement', produced by the person with ASD, which enables them to present information about themselves in a straightforward way to new employers or co-workers.

Travel training and support with travel

4.28   Given the difficulties young people with ASD are likely to experience, it is important that travel training starts as early as possible, preferably whilst the young person is still at school (Lee, 2003). The SEN Transition to Employment (Real Opportunities) Initiative has recognised the valuable role that travel training plays in preparing young people for employment and has provided travel training to all young people referred to the project who want it. Evidence from the project evaluation (Beyer et al, 2013a) highlighted that travel training was one of the most important services offered, from the perspective of young people and families, who reported important impacts in terms of increased confidence and independence.

4.29   Whilst considering work, and once in work many young people will need continued travel support. Lipski (2003) describes how

travel training as part of a work preparation programme helped to improve one man's confidence sufficiently well for him to take on a permanent part time job. Henn and Henn (2005) describe how for one young woman with ASD, holding down a full time job would have been impossible without access to supported transport.

4.30   Evidence from the scoping interviews highlighted how awareness of ASD can be raised amongst providers of public transport using a colour coded card that is shown when using a bus or train (the Orange Wallet scheme). The Orange Wallet scheme is one of a range of collaborative regional projects funded by the Welsh Government as an action from the ASD strategy. It is intended to help people, especially those with ASD, cope more easily with public transport[5]. Other stakeholders described how DWP Access to Work funding may be used successfully to fund supported transport, but that there may be issues with signposting and access to this funding by people with Asperger syndrome who may not be recognised by DEAs as eligible.

Promoting self-employment and micro-businesses as an option for young people with ASD

4.31   This issue was highlighted in several scoping interviews and one research study (Tucker et al, 2012). It is worth exploring in more detail as self-employment presents a way for young people with ASD to control anxiety triggers and find their own ways to overcome barriers to employment. In England, the 'In Business' programme (Bates, 2009) sought to develop the self-employment option for people with learning disabilities, document the journey, identify the barriers and produce appropriate and accessible guidance[6]. Sixty-one people were supported to explore options

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[5] See http://asdinfowales.co.uk/home.php?page_id=8251 for more details about the Orange Wallet, downloadable resources and information about Orange Wallet collection points around Wales.
[6] http://learningdisabilities.org.uk/our-work/employment-education/in-business/

and further 21 people worked on business ideas in small groups. A range of enterprise ideas were explored and successful business development was more likely to occur where an individual's skills, interest or aspirations met a genuine community need or demand. The project supported individuals and a nominated support worker through the business planning process using 'business support circles' and found that with the right support self employment offers a natural and comfortable route to work for many people with learning disabilities (some of whom will have an ASD).

Ensuring on-going and appropriate employment support is available to those who want it

4.32   In Wales, all young people with ASD are entitled to access individualised support from mainstream and specialist disability employment services once they have left formal education. In some areas, they may also be able to access specialist ASD employment services. The extent to which this provision is currently accessible and locally available is currently unclear. Evidence from the literature review has highlighted the importance of trusted, on-going employment input and support, which can be accessed at future points when crises or issues occur (Howlin et al, 2005; Deimel, 2004; Henn and Henn, 2005; Graetz, 2010, Hagner and Cooney, 2005; Lipski, 2003).

5   The experience of mainstream and pan-disability employment support for young people with ASD

5.1   There is evidence of a high unmet demand from people with ASD for employment support. A recent survey by the National Autistic Society (Bancroft et al, 2012) found that although 53% of adults with autism would like access to employment support, only 10% get it. Migliore et al (2012), in a US based study of 2,913 young people with ASD in vocational rehabilitation (supported employment) programmes, found that the odds of gaining employment were greater for young people who had access to job placement services. Yet only 48% of those enrolled in the programmes received those particular services.

5.2   There is also evidence, from the literature review and from scoping interviews, that mainstream and pan-disability employment support programmes can be difficult to access for young people with ASD (National Audit Office, 2009; Forsythe et al, 2008), do not always meet their needs (Ridley et al, 2005; Cimera and Cowan, 2009) and often deliver low employment group (Hurlbutt and Chalmers, 2004; Mawhood and Howlin, 1999). One international study appears to dispute this, however. Lawer et al (2009) examined the outcomes of 382,221 adults between 18 to 65, the entire population of disabled people who had used the American Vocational Rehabilitation Service (generic supported employment programme) before 2005. Compared with other disabled people using the service, people with ASD were in fact **more l**ikely to gain employment, but were also more likely to use on-the-job support. However it was unclear as to whether people with 'lower functioning' ASD were included in these figures.

5.3   The National Audit Office (2009) noted that the current approach to employment support by the Department for Work and Pensions

is pan-disability, rather than disability-specific. The appropriateness of this approach was questioned by people with autism, carers and autism specialists who took part in the National Audit Office research. Concerns included: reliance on group work, which some people find difficult because of social anxiety; short-term focus on producing job outcomes rather than building confidence and trust, which is particularly important for people with autism; lack of involvement by carers where services had low awareness of autism, with a risk that staff would not obtain correct information due to people's communication difficulties (National Audit Office, 2009, p35). At present, referral to the Work Choice programme, a generic disability employment support scheme, and to other government schemes, is only via DEAs at Jobcentres. The National Audit Office research (2009) highlighted that many DEAs may lack ASD awareness, a fact that had previously been noted by Owen (2004). In this survey, carried out for the National Autistic Society, Owen found that 86% of DEAs had supported clients with a diagnosis of ASD in the last two years, but only 33% felt they had sufficient knowledge about how to support the person to find suitable employment, with 75% agreeing that they would like more training about ASD.

6 Outcomes and benefits of specialist employment support for people with ASD

6.1 Overall, evidence from the scoping interviews and from the literature review appears to suggest that specialist supported employment schemes, geared specifically towards people with ASD, can achieve success in helping people get jobs and stay in their jobs. Beyer, Robinson and Pledger (2009) explain that although descriptions of the supported employment process vary in the number of key stages required, they can be summarised under five main headings: vocational profiling, job finding, job analysis and placement, job training and follow-along services.

6.2 Specialised supported employment schemes for people with ASD are very scarce, with just three being available in the south and west of Wales at present. Research conducted by the National Audit Office (2009) found that in England, although 83% of local authorities commissioned generic employment support for disabled people, only 10% of this provision was autism-specific.

6.3 A recent review of supported employment schemes for adults with ASD (Howlin, 2012) found that few research studies exist which document the experience, or the benefits, of different forms of employment support. The review notes that of the limited number of published studies available, most were qualitative and were characterised by very small sample sizes. Despite the small and limited evidence base, the research available suggests that specialised employment support can result in significantly higher rates of employment (Cimera and Cowan, 2009; Howlin et al, 2005), more appropriate employment (Cimera et al, 2012), higher employer satisfaction (Mawhood and Howlin, 1999) and improvements in quality of life (Garcia-Villamisar et al, 2002) when compared to generic disability employment services.

6.4   Howlin et al (2005) carried out an eight-year follow-up study of people enrolled in the National Autistic Society specialised ASD employment service, Prospects. They found that it took from six weeks to six months to place individuals in jobs, and that over the timescale of the research, 192 people were successful in gaining jobs of over 16 hours per week. The study found that over 85% of the jobs gained were sustained (over 13 weeks). Clients reported good satisfaction levels, increased confidence and improvements in independence. Two thirds of people enrolled in the Prospects service found work after two years, compared with one quarter in a control group with access to generic disability employment support.

6.5   Wehman et al's (2013) study cited previously, used a comparative design to examined employment outcomes for young people with ASD enrolled in an ASD-specific employment support programme involving a nine-month supported internship, versus those receiving their usual education and support at school. The research highlighted the very high employment outcomes for those who received the ASD-specific support: 21 out of the 24 interns were in paid work three months post-programme.

6.6   Schaller and Yang (2005) in a large scale comparative study in the US, compared people with ASD who had received supported employment services, with those who had not. Supported employment was shown to increase chances of employment (from 58.4% to 75.3%) but people were working slightly lower hours, and had far lower salaries. However, it is not clear in this study what services the 'control group' were receiving, nor precisely what is meant here by supported employment.

6.7   Cimera et al (2012) carried out a comparative study, with over 200 people in a supported employment group, and the same number who were moving on from a sheltered workshop which

was set to close. The age of participants was from 31 to 37, and 80% were male. The researchers found that both groups had identical outcomes in terms of jobs. However, the supported employment group got better jobs, and cost much less in terms of support. It could be, however, with this type of study, that the groups are not truly comparable, since they were not randomly selected. Those attending sheltered workshops could have had higher levels of need.

6.8   Garcia-Villamisar et (2002) in Spain carried out a comparative study, of 26 people with ASD in sheltered workshops, and 21 people who had supported employment. They used a quality of life survey to examine how far these groups had benefited from work, and interviews were carried out at two time points (one point was four years after they had got jobs). Garcia-Villamisar et al found significant improvements in quality of life outcomes for those in the supported employment group over time, whilst quality of life of those in the sheltered workshop group remained the same. Robertson and Emerson (2006) also advocate a need to focus on quality of life outcomes, aswell as jobs gained and levels of wages, when looking at the benefits of provision of vocational support to adults with ASD.

6.9   García-Villamisar and Hughes (2007) looked at the effects of supported employment on 'executive functions', again with a comparison design. Participants were in their mid twenties, and those in work were compared with unemployed people. The conclusion is that working in supported employment actually makes people better at cognitive tasks, or improves their IQ.

6.10   Howlin's recent literature review (2012) lists the characteristics of successful employment schemes for people with ASD as follows:

- Careful matching of the skills of the client to the demands of the job
- Pre-job training

- In-job support
- Support workers and job coaches who have a good understanding of the specific needs of people with ASD and who are able to advise and educate employers and supervisors.

The cost benefits of providing targeted specialist employment support for people with ASD

6.11 The eight year evaluation of the National Autistic Society's Prospects service by Howlin at al (2005) also collected costs data. This indicated that the cost per job found by Prospects decreased from £6,542 in 2000-1 to £4,281 in 2002-3. Funding for the service from the Department for Work and Pensions was £673,781 between 2000 to 2003. Taking into account the impact of reduced benefits payments and income from tax and National Insurance, the overall benefit to the public purse was estimated at £494,686, giving a net cost of £179,095 for providing 114 jobs over that time period.

6.12 The National Audit Office (2009) used these figures to explore the possible impacts of providing more widely available specialised support for people with ASD. It was estimated that if such services identified and supported around 4% or more adults with 'high functioning' autism in their local area they could become cost-neutral over time. Further analysis showed that identifying 6% could lead to potential savings of £38 million per year, and if 8% of this group were identified then annual savings could reach £67 million.

6.13 These estimated cost benefits highlight how important it is for employment support providers to (a) identify people with ASD; and (b) tailor their service offer accordingly.

Could outcomes of specialised ASD employment support be replicated more widely?

6.14 There appears to be no research, and very little available information, about (a) the extent to which mainstream or pan-disability employment support staff have either experience or training in working with young people with ASD; and (b) the impact of this on young people's experience of employment support services and employment outcomes (Robertson and Emerson, 2006).

6.15 Both the National Audit Office (2009) and the National Autistic Society (undated 3) advocate the provision of wider access to specialised ASD employment support services. However, they also suggest that more consideration could be given to how the good practice and successful outcomes of ASD-specific services (such as Prospects) could be replicated more widely. The National Audit Office (2009) suggests that specialist job coaches with knowledge of autism could be provided through pan-disability providers and funded through existing government programmes. The National Autistic Society (undated 3) presses for more ASD awareness training for DEAs, measurement of the diversity of client groups served by mainstream and pan-disability programmes, measurement of 'distance travelled', not just job outcomes and the recognition that there are additional costs and more time involved in supporting people with ASD. The National Autistic Society also suggests that mainstream and pan-disability providers could be required to sub-contract, with appropriate funding provided, to ensure that the expertise of specialist (and smaller) contractors remains available to those who need it.

7 Conclusion: what evidence has this review provided and what are the key gaps remaining?

7.1 There is a reasonable quantity, of mostly good quality data available on the barriers to employment for people with ASD and how these can be reduced or overcome. There are limitations to this evidence however: very few of the studies were conducted in Wales; the emphasis has mostly been on all working age adults with ASD, as opposed to focusing primarily on young people; much of the evidence is qualitative, not comparative and small-scale (case studies or small sample sizes).

7.2 A key message from the available evidence is that ASD-specific employment support, tailored to the individual communication, social and behavioural needs of the person, and delivered by experienced and well-informed professionals, is the most effective way to overcome barriers to employment for young people with ASD. The evidence that exists strongly suggests that specialised ASD employment support services deliver better outcomes than mainstream or pan-disability services. However the impact of training and awareness raising work with mainstream or pan-disability services has not yet been quantified or evaluated, so there may be additional means of targeting specialised employment support to young people with ASD that have not yet been explored or understood.

7.3 There is currently no evidence on the extent to which national, regional and local levels of employment support meet the needs of young people with ASD in Wales who want to make the transition to employment, from school, college, university or elsewhere. Nor is it clear as to what extent the different forms of provision currently available bring about positive employment outcomes for this group of young people.

Bibliography

Allen, K., Burke, R., Howard, M., Wallace, D., Bowen, S. (2012) 'Use of audio cuing to expand employment opportunities for adolescents with autism spectrum disorders and intellectual disabilities', Journal of Autism and Developmental Disorders, 42, pp 2410–2419.

ASD Task and Finish Group Sub-Group on FE and HE (2011) Report of the FE/HE Sub group. Welsh Assembly Government: Unpublished internal document.

Baker, D. (2006) 'Neurodiversity, neurological disorder and the public sector: Notes on the autistic spectrum', Disability and Society, 21(1), pp 15-29.

Bancroft, K., Batten, A., Lambert, S and Madders, T. (2012) The Way We Are: Autism in 2012. London: National Autistic Society. http://www.autism.org.uk/get-involved/50th-birthday/survey-report.aspx

Bates, K. (2009) In Business: Developing the Self Employment Option for People with Learning Disabilities. London: Foundation for People with Learning Disabilities.

Beyer, S., Kaehne, A., Meek, A. and Pimm, C. (2013a) 'Impact of the Real Opportunities project', paper presented at the Real Opportunities, Real Results conference, Swansea, 25th June 2013. http://issuu.com/lauraldw/docs/8._real_opportunities_evaluation_-_

Beyer, S., Meek, A and Davies, A (2013b) Evaluation of the ENABLE project: An Internship Programme for Young People with Learning Disabilities. Cardiff: Welsh Centre for Learning Disabilities, Cardiff University .

Beyer, S. (2008) 'Transition from school to employment – what works?', Llais, Spring 2009, pp 8-11.

Beyer, S. and Kaehne, A. (2010) Transition to Employment: The role of Getting A Life in developing an employment pathway for people with learning disabilities. Welsh Centre for Learning Disabilities, Cardiff University. http://base-uk.org/sites/base-uk.org/files/[user-raw]/11-06/getting_a_life_-_transition_to_employment_full_document.pdf

Beyer, S., Robinson, C. and Pledger, B. (2009) A Review of the Research Literature on Supported Employment: A report for the learning disability employment strategy group. London: Department of Health.

Billstedt, E., Gillberg, C. and Gillberg, C. (2005) 'Autism after adolescence: Population-based 13–22 year follow-up study of 120 individuals with autism diagnosis in childhood', Journal of Autism and Developmental Disorders, 35, pp 351–360.

Bulhak-Peterson, D. (2007) 'Social skills in the workplace', The Spectrum, 3(4), pp4-6.

Burke, R., Andersen, M., Bowen, S., Howard, M. and Allen, K. (2010) 'Evaluation of two instruction methods to increase employment options for young adults with autism spectrum disorders', Research in Developmental Disabilities, 31, pp 1223–1233.

Careers Wales (2012) Pupil Destinations from Schools in Wales. http://destinations.careerswales.com/keyfindings.html

Cimera, R. and Cowan, R. (2009) 'The costs of services and employment outcomes achieved by adults with autism in the US', Autism, 13(3), pp 285–302.

Cimera, R., Wehman, P., West, M. and Burgess, S. (2012) 'Do sheltered workshops enhance employment outcomes for adults with autism spectrum disorder?' Autism, 16(6), pp 87–94.

Cimera, R., Burgess, S. and Wiley, A. (2013) 'Does providing transition services early enable students with ASD to achieve better vocational outcomes as adults?' Research and Practice for Persons with Severe Disabilities, 38, pp88-93.

Copeland, A., McLean, J. and Glover, G. (2011) Local Authority Self-assessment of Services for People with Autism in 2010/2011: Ratings atlas. Department of Health, Learning Disabilities Observatory. http://www.improvinghealthandlives.org.uk/uploads/doc/vid_16002_IHaL 2012-06 Autism Self Assessment 2010-11 Ratings atlas v1.01.pdf

Davidson, J. (2010) 'It cuts both ways': A relational approach to access and accommodation for autism', Social Science and Medicine, 70, pp 305–312.

Deimel, L. (2004) 'How diagnosis can change an outlook on employment for Asperger syndrome people: a personal account', Good Autism Practice, 5(1), pp 26-30.

Department for Work and Pensions (2013) The Disability and Health Employment Strategy: The discussion so far. https://www.gov.uk/government/uploads/system/uploads/attachment_da ta/file/266373/disability-and-health-employment-strategy.pdf

Department of Health (2011) Pathways to Getting a Life: Transition planning for full lives. Department of Health: London.

http://www.gettingalife.org.uk/downloads/2011-Pathways-to-getting-a-life.pdf

Donald, C. (2012) 'Making it work', Communication, Spring Issue, 2012, p 46.

Eaves, L. and Ho, H. (2008) 'Young adult outcome of autism spectrum disorders', Journal of Autism and Developmental Disorders, 38, pp 739–47.

Equalities and Human Rights Commission (2011) Opening Up Work: The Views of Disabled People and People with Long-Term Health Conditions. London: EHRC.

Emerson, E., Hatton, C., Robertson, J., Baines, S., Christie, A. and Glover, G. (2012) People with Learning Disabilities in England 2012. http://www.improvinghealthandlives.org.uk/securefiles/140128_1015//IHAL2013-0 People with Learning Disabilities in England 2012v3.pdf

Farley, M., McMahon, W., Fombonne, E., Jenson, W., Miller, J. and Gardner, M., et al. (2009) 'Twenty-year outcome for individuals with autism and average or near-average cognitive abilities', Autism Research, 2, pp 109–18.

Forsythe, L., Rahim, N. and Bell, L. (2008) Benefits and Employment Support Schemes to Meet the Needs of People with an Autistic Spectrum Disorder. London: Inclusion Research and Consultancy.

Garcia-Villamisar, D., Wehman, P and Diaz Navarro, M. (2002) 'Changes in the quality of autistic people's life that work in supported and sheltered employment. A 5-year follow-up study', Journal of Vocational Rehabilitation, 17 (4), pp 309-312.

García-Villamisar, D. and Hughes, C. (2007) 'Supported employment improves cognitive performance in adults with Autism', Journal of Intellectual Disability Research, 51(2), pp 142-50.

Gentry, T., Lau, S., Molinelli, A., Fallen, A. and Kriner, R. (2012) 'The Apple iPod Touch as a vocational support aid for adults with autism: Three case studies', Journal of Vocational Rehabilitation, 37, pp 75–85.

Graetz, J. (2010) 'Autism grows up: Opportunities for adults with autism', Disability and Society, 25(1), pp 33-47.

Grandin, T. (2012) Different...Not Less: Inspiring Stories of Achievement and Successful Employment from Adults with Autism, Asperger's and ADHD. Future Horizons.

Griffith, G., Totsika, V., Nash, S. and Hastings, R. (2011) ''I just don't fit anywhere': support experiences and future support needs of individuals with Asperger syndrome in middle adulthood', Autism, 16(5), pp 532–546.

Hagner, D. and Cooney, B. (2005)'"I do that for everybody": supervising employees with autism', Focus on Autism and Other Developmental Disabilities, 20(2), pp 91-97.

Henn, J. and Henn, M. (2005) 'You can't put a square peg in a round hole no matter how hard you try', Journal of Vocational Rehabilitation, 22, pp 129-30

Higgins, K., Koch, L., Boughfman, E. and Vierstab, C. (2008) 'School-to-work transition and Asperger Syndrome', Work, 31, pp 291–298.

Hillier , A., Mastriani, K., Vreeburg Izzo, M., Kool-Tucker, A., Cherry, L. and Beversdorf, D. (2007) 'Two year evaluation of a vocational support programme for adults on the autism spectrum', Career Development for Exceptional Individuals, 30, pp 35-47.

Holtom, D., Lloyd-Jones, S., Bowen, R. and Watkins, J. (2013) The Costs and Benefits of Transition Key Working: An analysis of five pilot projects. Cardiff: Welsh Government.
http://wales.gov.uk/docs/caecd/research/130125-costs-benefits-transition-key-working-summary-en.pdf

Howlin, P. (2004) Autism and Asperger Syndrome: Preparing for adulthood. London: Routledge.

Howlin, P., Alcock, J. and Burkin, C. (2005) 'An 8 year follow-up of a specialist supported employment service for high-ability adults with autism or Asperger syndrome', Autism, 9(5), pp 533–549.

Howlin, P. (2012) A Review of Supported Employment Schemes for Adults with Autistic Spectrum Disorders. London: Kings College London.

Howlin, P. (2013) 'Social disadvantage and exclusion: adults with autism lag far behind in employment prospects', Journal of the American Academy of Child and Adolescent Psychiatry, 52(9), pp 897-899.

Hurlbutt, K. and Chalmers, L. (2004) 'Employment and adults with Asperger syndrome', Focus on Autism & Other Developmental Disabilities, 19, pp 215-222.

Johnson, M. (2004) Managing with Asperger Syndrome: A practical guide for white collar professionals. London: Jessica Kingsley.

Lattimore, L., Parsons, M. and Reid, D. (2002) 'A pre-work assessment of task preferences amongst adults with autism beginning a support job', Journal of Applied Behaviour Analysis, 35, pp 85–88.

Lattimore, L., Parsons M. and Reid D. (2003) 'Assessing preferred work among adults with autism beginning supported jobs: Identification of constant and alternating task preferences', Behaviour Intervention, 18, pp 161–177.

Lattimore, L., Parsons M. and Reid, D. (2006) 'Enhancing job-site training of supported workers with autism: A re-emphasis on simulation', Journal of Applied Behaviour Analysis, 39, pp 91–102.

Lawer, L., Brusilovskiy, E., Salzer. M. and Mandell, D. (2009) 'Use of vocational rehabilitative services among adults with autism', Journal of Autism and Developmental Disorders, 39, pp 487–494.

Learning and Skills Act (2000).
http://www.legislation.gov.uk/ukpga/2000/21/contents

Lee, C. (2003) Creating a work experience programme for students with autism. Good Autism Practice, 4 (2), pp 37-41.

Lee, G. and Carter, E. (2012) 'Preparing transition-age students with higher functioning autism spectrum disorders for meaningful work', Psychology in the Schools, 49(10), pp 988-1000.

Lees, S. (2004) 'Pushing through the barriers', Communication, 38(1), p 29.

Lipski, A. (2003) 'Success story in job search', Communication, 37(1), pp 34-35.

Martin, N. (2005) 'Asperger's syndrome in the workplace: potential difficulties and straightforward solutions', The Skill Journal, 81, pp 30-33.

Mawhood L. and Howlin P. (1999) 'Outcome of a supported employment scheme for high functioning adults with autism or AS', Autism, 3(3), pp 229-254.

McDonough, J. and Revell, G. (2010) 'Accessing employment supports in the adult system for transitioning youth with autism spectrum disorders', Journal of Vocational Rehabilitation, 32, pp 89–100.

Meyer, R. (2000) Asperger Syndrome Employment Workbook: An employment workbook for adults with Asperger Syndrome. London: Jessica Kingsley.

Migliore, A., Timmons, J., Butterworth, J. and Lugas, J. (2012) 'Predictors of employment and postsecondary education of youth with autism', Rehabilitation and Counselling Bulletin, 55, p 176.

National Autistic Society (2004) The Undiscovered Workforce: Looking for staff? London: National Autistic Society.

National Autistic Society (2012) Untapped Talent: a guide to employing people with Autism. London: National Autistic Society. http://www.autism.org.uk/get-involved/campaign-for-change/our-campaigns/the-undiscovered-workforce/download-resources.aspx

National Autistic Society Northern Ireland, Department for Employment and Learning, the Equality Commission for Northern Ireland and Employers for Disability NI (2011) Employing People with Autism: A brief guide for employers. London: National Autistic Society. http://www.equalityni.org/archive/pdf/Employingpeoplewithautism.pdf

National Autistic Society (undated 1) Recruiting Someone with an ASD. http://www.autism.org.uk/our-services/employment-support/employers/factsheets-for-employers/employer factsheet-recruiting-someone-with-an-asd.aspx

National Autistic Society (undated 2) Bullying in the Workplace. http://www.autism.org.uk/living-with-autism/employment/bullying-in-the-workplace.aspx

National Autistic Society (undated 3) Improving Specialist Disability Services: A response from the NAS. http://www.autism.org.uk/get-involved/campaign-for-change/our-work-with-government/westminster/consultation-responses-to-westminster/consultation-responses-to-westminster-on-work-and-benefits/improving-specialist-disability-employment-services-a-response-from-the-nas.aspx

National Autistic Society (undated 4) Managing Someone with an ASD.

National Autistic Society (undated 5) What is Autism? http://www.autism.org.uk/About-autism/Autism-and-Asperger-syndrome-an-introduction/What-is-autism.aspx

National Assembly for Wales (2010) Enterprise and Learning Committee: Specialist Provision for Young People with Autism in Further Education. Cardiff: National Assembly for Wales.

National Audit Office (2009) Supporting People with Autism through Adulthood. London: The Stationery Office.

Office for Disability Issues (2012) Disability Equality Indicators: Comparing the Life Chances of Disabled People to Non-disabled People.
http://odi.dwp.gov.uk/disability-statistics-and-research/disability-equality-indicators.php

O'Neil, S. (2008) 'The meaning of autism: Beyond disorder', Disability and Society, 23(7), pp 787-799.

Owen, G. (2004) DEAs: Working for autism? London: National Autistic Society.

Paradiz, V. (2009) Autism, identity and employment: transcending the obstacles of the working world, Perspectives from Working Professionals: Autism Advocate, 4th Edition, pp1-4.

Parliamentary Select Committee for Education (2011) Education – Fourth Report: Participation by 16-19 year olds in education and training.
http://www.publications.parliament.uk/pa/cm201012/cmselect/cmeduc/850/85005.htm

Patterson, A. and Rafferty, A. (2010) 'Making it to work: towards employment for the young adult with autism', International Journal of Language and Communication Disorders, 36 (1), pp 475-80.

Plimley, L. (2012) The Deis Cyfle! Project 2009-12: Early outcomes and successes. Presentation for CPAG.

Precin, P. (2010) 'The use of visual imagery to enhance sequencing of work tasks', Work, 36, pp 373–379.

Pritchard, S. (2013) How Hiring People with Autism Could Benefit IT. Accessed on 27th November 2013.
http://www.itpro.co.uk/staffing/19859/how-hiring-people-autism-could-benefit-it#ixzz2WTAgYvqV

Purvis, A., Small, L., Lowrey, J., Whitehurst, D. and Davies, M. (2012) Project Search: Evaluation. Final Report. London: Office for Disability Issues.

Richards, J. (2012) 'Examining the exclusion of employees with Asperger syndrome from the workplace', Personnel Review, 41(5), pp 630–646.

Ridley, J., Hunter, S. and Infusion Cooperative (2005) Go For It: Supporting People with Learning Disabilities and/or Autistic Spectrum Disorder in Employment. Edinburgh: Scottish Executive Social Research

Roberts, H., Copeland, A., Glover, G., Hatton, C. and Baines S. (2012) Learning Disability Partnership Board Progress Reports 2010/11: A thematic analysis.

Robertson, J. and Emerson, E. (2006) A Systematic Review of the Comparative Benefits and Costs of Models of Providing Residential and Vocational Supports to Adults with Autistic Spectrum Disorder. Lancaster: Institute for Health Research, Lancaster University.

Rosenblatt, M. (2008) I Exist: The message from adults with autism in England. London: National Autistic Society.

Roux, A., Shattuck, P. and Cooper, P. (2013) 'Postsecondary employment experiences among young adults with an autism spectrum disorder', Journal of the American Academy of Child and Adolescent Psychiatry, 52(9), pp 931-939.

Schall, C. (2010) 'Positive behavior support: Supporting adults with autism spectrum disorders in the workplace', Journal of Vocational Rehabilitation, 32, pp 109–115.

Schaller, J. and Yang, N. (2005) 'Competitive employment for people with autism: correlates of successful closure in competitive and supported employment', Rehabilitation and Counselling Bulletin, 49, 4-16.

Segar, M. (1997) Coping: A survival guide for people with Asperger Syndrome.
http://www-users.cs.york.ac.uk/~alistair/survival.pdf

Shattuck, P., Carter Narendorf, S., Cooper, B., Sterzing, P., Wagner M. and Taylor, J. (2012) 'Postsecondary education and employment among youth with an autism spectrum disorder', Pediatrics, 129, pp 1042-1049.

Specialisterne (undated 1) Registration and Filing of Scanned Mails for Gladsaxe Municipality.
http://uk.specialisterne.com/cases/gladsaxe-municipality/

Specialisterne (undated 2) Managing Cable Network Enquiries at GlovbalConnect.
http://uk.specialisterne.com/cases/globalconnect/

Stuart-Hamilton, I., Griffith, G., Totsika, V., Nash, S., Hastings, R.P., Felce, D. & Kerr, M., (2009) The Circumstances and Support Needs of Older People with Autism. Cardiff: Autism Cymru.

Taylor, J. and Seltzer, M (2012) 'Developing a vocational index for adults with autistic spectrum disorders', Journal of Autism and Developmental Disorders, 42, pp 2669-2679.

Thomas, G. (2013) Article for the Wales Autism Research Centre, Research-Policy-Practice. Accessed on 27th November 2013. http://www.autismrpphub.com/sites/default/files/articles/gwenda_thomas .pdf

Townsley, R., Robinson, C., Williams, V., Beyer, S. and Christian-Jones, C. (2014) Research into Employment Outcomes for Young People with Autistic Spectrum Disorders. Cardiff: Welsh Government.

Tucker, S., Sutherland, R., Alldis, K., Brown, V., Burns, D. and Ralphson, S. (2012) Work In Progress: An inclusive research project. Unpublished report to the BIG Lottery Fund, Cornwall People First.

Roux, A., Shattuck, P. and Cooper, P. (2013) Postsecondary employment experiences among young adults with an autism spectrum disorder, Journal of the American Academy of Child and Adolescent Psychiatry, 52(9), pp 931-939.

Van Laarhoven, T., Winiarski, L., Blood, E. and Chan, J. (2012), 'Maintaining vocational skills of individuals with autism and developmental disabilities through video modeling', Education and Training in Autism and Developmental Disabilities, 47(4), pp 447–461.

Wallis, L. (2012) 'Autistic workers: loyal, talented...ignored', The Guardian, Friday 6th April 2012.

Watkins, J. and Holtom, D. (2013) Outcome Evaluation of the Autistic Spectrum Disorder Strategic Action Plan for Wales: Literature Review. Cardiff: People and Work Unit.

Wehman, P., Schall, C., McDonough, J., Kregel, J. et al (2013) Competitive employment for youth with Autism Spectrum Disorders: Early results from a randomized clinical trial, Journal of Autism and Developmental Disorders, published online, reference: 10.1007/s10803-013-1892-x

Welsh Assembly Government (2008) The Autistic Spectrum Disorder (ASD) Strategic Action Plan for Wales. http://wales.gov.uk/topics/childrenyoungpeople/publications/autisticspect rumdisorderplan/?lang=en

Welsh Assembly Government (2010) Autistic Spectrum Disorders: Employment and work related issues in Wales. http://www.asdinfowales.co.uk/resource/e_i_110127asdemploymenten.p df

Welsh Assembly Government (2011) The ASD Strategic Action Plan for Wales (2008). Evaluating the Foundation Phase. http://wales.gov.uk/topics/health/nhswales/majorhealth/autism/plan/?lan g=en

Welsh Government (2012a) Scoping Study into the Use of Further Education Destination Data. Cardiff: Welsh Government.

Welsh Government (2012b) Forward in Partnership for Children and Young People with Additional Needs. Consultation Document WG14863. Cardiff: Welsh Government.