



# The Economic Value of the Adult Social Care sector - Wales

Final report

05 June 2018



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## Final report

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## Document Control

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## Abbreviations

### Acronyms and definitions

Acronym	Full title
ABS	Annual Business Survey
APS	Annual Population Survey
ASHE	Annual Survey of Hours and Earnings
CH	Companies House
CIW	Care Inspectorate Wales
CQC	Care Quality Commission
EBITDAR	Earnings before interest, taxes, depreciation, amortization, and restructuring or rent costs
EBITDA	Earnings before interest, taxes, depreciation, amortization
FTE	Full-Time Equivalent (37 hours a week)
GVA	Gross Value Added
IDBR	Inter-Departmental Business Register
I-O Tables	Input-Output tables
LFS	Labour Force Survey
NMDS-SC	National Minimum Dataset - Social Care
ONS	Office for National Statistics
PA	Personal Assistant
PAYE	Pay As You Earn
PSSRU	Personal Social Services Research Unit
SCWDP	Social Care Workforce and Development Programme
SfC	Skills for Care
SfCD	Skills for Care and Development
SIC	Standard Industrial Classification

### Definitions of key terms

Key term	Definition
Agency	An organisation which provides temporary workers to service providers
Community Care	Social care services that take place out in the community and not in a fixed location
Day Care	Care provided for service users in a day care centre (non-residential) or the provision of activities outside the home
Direct Payment Recipient	An individual who receives payment from the Government or local authority to pay for their own care, rather than having prescribed care provided to them
Direct jobs / employment	All jobs or employment in the adult social care sector
Domiciliary care	Care provided in a service users own or family home
GVA	The measure of the value of goods and services produced by an economy. It is output minus intermediate consumption

Key term	Definition
Independent	Private and voluntary sector providers of adult social care
Indirect jobs / employment	All jobs or employment resulting from the purchase of intermediate goods and services by the adult social care sector
Induced jobs / employment	All jobs or employment resulting from purchases made by those directly and indirectly employed in the adult social care sector
Non-regulated	Employers in the adult social care sector which are not subject to inspections or regulation
Nursing Care	Care provided in a residential setting which requires nursing care
Private	Employers in the adult social care sector owned by for profit private enterprises
Public	Employers in the adult social care sector owned and operated by the Government local authorities and the NHS
Regulated	Employers in the adult social care sector which are inspected and regulated by the national social care inspectors
Residential care	Care provided in a residential setting rather than in a service users own or family home
Service User	An individual who uses adult social care services
Voluntary	Providers in the adult social care sector run by for not-for-profit organisations

## Executive summary

### Key Findings

#### *Sector characteristics*

- An estimated 2,070 sites were involved in providing adult social care in Wales in 2016. Most of these sites were provided nursing care. A further 1,700 individuals receive direct payments and employ Personal Assistants (PAs);
- There were an estimated 79,800 jobs in the adult social care sector in Wales in 2016. Most of these jobs were involved in providing residential care. There were a further 3,600 jobs due to individuals employing PAs, meaning there were a total of 83,400 jobs in the adult social care sector in 2016;
- There were an estimated 60,000 Full-Time Equivalents (FTEs) in the adult social care sector in Wales, and a further 1,600 FTEs employed as PAs;
- Most of the adult social care workforce providing regulated services were employed at sites run by private sector providers (44,500);
- The level of employment in the adult social care sector represents 6% of total employment in Wales; and
- The average earnings in the adult social care sector in Wales was estimated to be £16,900.

#### *Economic value of the sector (using the income approach)*

- It was estimated that in 2016, adult social care sector GVA was £1.2 billion. Most of this was estimated to be in residential care (£328 million, 28%);
- This represents 1.9% of total GVA in Wales;
- It was estimated that the average level of productivity (GVA generated per FTE) in the adult social care sector was £18,700; and
- The estimated GVA in the adult social care sector in Wales is estimated to be higher than the Agriculture, forestry and fishing, Arts, entertainment and recreation and Water supply; sewerage and waste management sectors.

#### *Indirect and induced value of the sector (using the income approach)*

- The indirect effect of the adult social care sector (resulting from the purchase of intermediate goods and services by the adult social care sector in delivering its services) was estimated to contribute a further 31,200 jobs (23,000 FTEs) and £554 million of GVA to the Welsh economy;
- The induced effect of the adult social care sector (resulting from purchases made by those directly and indirectly employed in the adult social care sector) was estimated to contribute a further 12,200 jobs (9,000 FTEs) and £543 million of GVA to the Welsh economy; and
- The total direct, indirect and induced value of the adult social care sector in Wales was estimated to be 126,800 jobs (93,600 FTEs) and £2.2 billion in 2016.

## Introduction

Skills for Care and Development (SfCD) required robust estimates of the economic value of the adult social care sector in each of the four nations of the UK. This included:

- The annual Gross Value Added (GVA) generated directly by the adult social care sector (including public sector activities within the sector as well as the independent sector) (direct impact);
- The supply chain multiplier for the adult social care sector (indirect impact); and
- The wage multiplier for the adult social care sector (induced impact).

This report provides estimates for these research aims for Wales. It also provides estimates of employment due to the adult social care sector (direct, indirect and induced employment) and the level of productivity in the sector (GVA per worker).

## Sector characteristics

The adult social care sector is made up of public, private and voluntary sector service providers. Over 2,000 sites provide adult social care services, and most these (72%) are run by private service providers. The largest number of sites (800) provide nursing care. Additionally, 1,700 people receive direct payments and directly employ their own staff (Personal Assistants, PAs). The total number of sites providing adult social care in Wales is summarised in Table ES1.1.

Table ES1.1 Estimated total sites providing adult social care in Wales - 2016

Type of service	Number of sites where services are provided
Residential care	530
Nursing care	820
Domiciliary care	520
Day care	60
Other services	130
Direct employers	1,700
<b>Total – excluding direct employers</b>	<b>2,070</b>
<b>Total – including direct employers</b>	<b>3,760</b>

All numbers rounded to nearest 10. Totals may not equal the sum of services due to rounding.

There are estimated to be nearly 80,000 jobs (nearly 60,000 Full Time Equivalents, FTEs) in the adult social care sector in Wales. Most of these are in the private sector (62%). When directly employed PAs are included, there are 83,400 jobs (61,000 FTE). Most jobs are in the residential care sector. The total number of jobs and FTE by type of provision is presented in Table ES1.2.

Table ES1.2 Estimated number of jobs and FTEs in adult social care sector in Wales, 2016

Type of service	Jobs	FTE
Residential care	24,700	18,100
Nursing care	7,300	5,500
Domiciliary care	23,500	16,800
Day care	9,100	6,800
Other services	15,300	12,000
Direct employers	3,600	1,600
<b>Total – excluding direct employers</b>	<b>79,800</b>	<b>60,000</b>
<b>Total – including direct employers</b>	<b>83,400</b>	<b>61,600</b>

All numbers rounded to nearest 100. Totals may not equal the sum of services due to rounding.

## Direct economic value of the adult social care sector

The direct economic value of the adult social care sector has been estimated using three different approaches: the input approach; the expenditure approach; and the output

approach. This was to increase the robustness of the estimates, as there were strengths and weaknesses with the availability and quality of the data required for each of approach.

## Income approach

The income approach estimates the total income received by representatives of the sector in the form of wages and other income. These types of income were estimated using earnings (for wages) and the Gross Operating Surplus (GOS) generated in the sector (other income). In the case of the adult social care sector, the large majority of income in the sector will be earned in wages paid to social care workers.

Table ES1.3 presents the results using the income approach. In Wales in 2016, it was estimated that adult social care GVA was £1.2 billion using this approach. The largest proportion of GVA was estimated to be in the residential care sectors (28% of the total value of the sector).

Table ES1.3 Earnings estimates of adult social care and related GVA

	Earnings (£'000)	GOS (£'000)	GVA estimates (£'000)
Residential care	298,412	29,600	328,012
Nursing care	92,583	57,734	150,317
Domiciliary care	258,333	33,933	292,266
Day care	114,643	0	114,643
Other services	242,761	0	242,761
Personal Assistants	25,549	0	25,549
<b>Total</b>	<b>1,032,281</b>	<b>121,268</b>	<b>1,153,549</b>

Individual row totals may be not sum due to rounding. Totals may not equal the sum of services due to rounding.

## Expenditure approach

The expenditure approach involves estimating the total level of expenditure on adult social care in Wales (public and private funding). This is then converted to GVA (turnover less purchase of intermediate goods and services) based on turnover (represented by expenditure) to GVA ratios provided in the Annual Business Survey (ABS).

Table ES1.4 presents the results using the expenditure approach. In Wales in 2016, it was estimated that adult social care GVA was £1.2 billion using this approach. The largest proportion of GVA was estimated to be in the residential care sectors (42% of the total value of the sector).

Table ES1.4 Expenditure estimates of adult social care and related GVA

	Total expenditure (£'000)	Turnover to GVA ratio	GVA (£'000)
Residential care	652,122	77%	502,078
Nursing care	264,360	80%	210,656
Domiciliary care	369,843	49%	179,771
Day care	141,626	49%	68,841
Other services	300,648	67%	200,342
Personal Assistants	61,936	67%	41,272
<b>Total</b>	<b>1,790,535</b>		<b>1,202,959</b>

Individual row totals may be not sum due to rounding. Totals may not equal the sum of services due to rounding.

## Output approach

The output approach measures the output of the sector by estimating the number of units of each type of service provided, and multiplying this by a unit cost for the service. This estimates the total level of output (the equivalent of turnover) in the sector, which is then converted to GVA.

Table ES1.5 presents the results using the output approach. In Wales in 2016, it is estimated that adult social care GVA was £1.2 billion using this approach. The largest proportion of GVA is estimated to be in the residential and nursing care sectors (63% of the total value of the sector).

Table ES1.5 Output estimates of adult social care and related GVA

	Total output (£'000)	Turnover to GVA ratio	GVA (£'000)
Residential care	501,402	77%	386,037
Nursing care	448,394	80%	357,304
Domiciliary care	383,486	49%	186,402
Day care	88,930	49%	43,226
Other services	300,648	67%	200,342
Direct payments	22,530	49%	10,951
<b>Total</b>	<b>1,829,119</b>		<b>1,184,262</b>

*Individual row totals may be not sum due to rounding. Totals may not equal the sum of services due to rounding.*

## Indirect and induced economic value of the adult social care sector

The estimations above describe the direct economic value of the adult social care sector. The sector also contributes to the economy through:

- **Indirect effects** - resulting from the purchase of intermediate goods and services by the adult social care sector in delivering its services, which support additional employment and GVA within its supply chain; and
- **Induced effects** - resulting from purchases made by those directly and indirectly employed in the adult social care sector, who use their earnings to buy other goods and services.

It was estimated that the indirect effects of intermediate purchases made by the adult social care sector contribute an additional 31,000 jobs<sup>1</sup> and between £554 million and £583 million of GVA in Wales.

The induced effects (associated with the purchases of goods and services by individuals directly or indirectly employed by the sector) were estimated to support a further 12,000 jobs and £543 million to £567 million of GVA in the wider economy. These are similar in size to the indirect GVA effect, but smaller than the indirect employment effect.

<sup>1</sup> These are jobs, not FTE

## Key indicators

The key findings from the research are presented in Table ES1.6. This presents estimates which show that:

- There are over 83,000 jobs in the adult social care sector, and there were nearly 62,000 FTE jobs. These jobs generated around £1.2 billion in GVA, and the level of productivity (GVA per FTE) was estimated to be between £18,700 and £19,500 per FTE job.
- The indirect effect of the adult social care sector was estimated to be over 31,000 jobs (or 23,000 FTEs) and between £554 million and £583 million in GVA. The indirect effect is due to the purchase of intermediate goods and services by the adult social care sector.
- The induced effect of the adult social care sector (additional spending by those directly and indirectly employed through the adult social care sector) is estimated to be the employment of over 12,000 (9,000 FTE jobs) and between £545 million and £567 million of GVA.

The total direct, indirect and induced value of the adult social care sector in Wales was estimated to be nearly 127,000 jobs, nearly 94,000 FTE jobs and between £2.2 billion and £2.4 billion in GVA.

Table ES1.6 Summary of findings

	Income approach	Expenditure approach	Output approach
Total direct employment		83,400	
Total FTE employment		61,600	
Total direct GVA (£'000)	1,153,549	1,202,959	1,184,262
Estimated productivity per job (£)	13,800	14,400	14,200
Estimated productivity per FTE (£)	18,700	19,500	19,200
Indirect employment (jobs)		31,200	
Indirect employment (FTE)		23,000	
Induced employment (jobs)		12,200	
Induced employment (FTE)		9,000	
Total jobs due to adult social care activity		126,800	
Total FTE jobs due to adult social care activity		93,600	
Indirect GVA (£'000)	553,738	582,604	562,020
Induced GVA (£'000)	542,532	567,406	554,924
<b>Total GVA due to adult social care activity (£'000)</b>	<b>2,249,820</b>	<b>2,352,970</b>	<b>2,301,207</b>

*All employment numbers rounded to nearest 100, productivity numbers rounded to the nearest £100. Totals may not equal the sum of services due to rounding.*

# 1 Introduction

Skills for Care and Development (SfCD) is the sector skills council for people working in early years, children and young people's services, and those working in social work and social care for adults and children in the UK. They have four partner organisations, one in each nation of the UK. These are Skills for Care (SfC) in England; Northern Ireland Social Care Council in Northern Ireland; Scottish Social Services Council (SSSC) in Scotland; and Social Care Wales in Wales.

SfCD required robust estimates of the current economic value of the adult social care sector in each of the four nations of the UK. These estimates will be used in policy discussions and decisions about the sector. The evidence base will demonstrate how the sector contributes to the economy. The estimates may help to influence the views of decision-makers who see social care as a drain or burden to the economy.

## 1.1 Research aims

The objective for this research was to estimate the economic value of the adult social care sector services in the UK, and the value of the sector in each of the four nations individually. This included:

- The annual Gross Value Added (GVA) generated directly by the adult social care sector (including public sector activities within the sector as well as the independent sector) (direct impact);
- The supply chain multiplier for the adult social care sector (indirect impact); and
- The wage multiplier for the adult social care sector (induced impact).

This report presents additional key metrics which indicate the economic importance of the sector, including:

- Employment (direct employment, indirect and induced employment); and
- Productivity - GVA per worker for the adult social care sector. This is a key metric for the Treasury (HMT) when assessing economic value.

## 1.2 Purpose of this report

This report presents the estimated economic value of the adult social care sector in Wales. The economic value of the sector has been calculated using three different approaches: the input approach; the expenditure approach; and the output approach. This was to increase the robustness of the estimates, as there were strengths and weaknesses with the availability and quality of the data required for each approach.

The methodology used to estimate the economic value of the adult social care sector in Wales was informed by consultations with the project steering group in Wales and a review of relevant literature. A detailed mapping of appropriate and available data framed by the agreed methodological framework was undertaken. This was followed by the collection of suitable data and the subsequent estimation of the economic value of the sector.

## 1.3 Structure of this report

The report continues in the following sections:

- Section 2 describes the size and structure of the adult social care sector;
- Section 3 estimates the direct economic value of the adult social care sector using the input approach;
- Section 4 estimates the direct economic value of the adult social care sector using the expenditure approach;
- Section 5 estimates the direct economic value of the adult social care sector using the output approach;
- Section 6 estimates the induced and indirect economic value of the adult social care sector;
- Section 7 presents the conclusions from the research, including the key economic indicators and comparisons to other research and economic sectors.
- Annex 1 provides more details about the methodology used to estimate the economic impact of the adult social care sector in Wales; and
- Annex 2 shows the results of a sensitivity analysis, where some of the assumptions used in the calculation of the economic value of the sector have been varied.

## 2 Sector characteristics

This section provides key characteristics of the adult social care sector in Wales. These characteristics describe the size and structure of the sector in Wales.

### 2.1 Number of service providers

A number of sector specific and Office for National Statistics (ONS) datasets have been used to provide a description of the adult social care sector in Wales. Information collected by the Care Inspectorate Wales (CIW, formerly Care and Social Services Inspectorate Wales, CSSIW) and Data Cymru, data from the government's Inter-Departmental Business Register (IDBR) and from SfC provide data to estimate the number of service providers in Wales. More details about the methodology are presented in Annex 1.

#### 2.1.1 Regulated service providers

The CIW collect data of all sites providing regulated care services in Wales. The type of service provided at these sites is categorised, which means that the number of sites providing each type of regulated adult social care service can be presented.

It was possible to identify the number of sites providing regulated services, but not the number of service providers (as this was not included in the CIW data). Further interrogation of the dataset, and using information from Carehome.co.uk<sup>2</sup> and information from Data Cymru allowed the services to be disaggregated by type of provider.

The number of sites providing regulated adult social care services are presented in Table 2.1 (this provides 100% coverage of regulated services in Wales). In summary, there were nearly 1,600 sites providing regulated adult social care in 2016. Most regulated sites were providing residential or nursing care (69%). The largest number of sites are run by private sector service providers (1,140, 72% of regulated providers).

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<sup>2</sup> This was used to establish which care homes were Local Authority care homes, as it was not clear from the entries in the CIW database which care homes were public sector and which were independent.

Table 2.1 Number of service providers and sites - regulated services, 2016

Type of provider	Type of service	Number of service providers	Number of sites providing services
Public	Residential care	-	100
	Nursing care	-	-
	Domiciliary care	-	40
	Day care	-	-
	Other services	-	-
	<b>Total</b>		-
Private	Residential care	-	130
	Nursing care	-	650
	Domiciliary care	-	350
	Day care	-	-
	Other services	-	10
	<b>Total</b>		-
Voluntary	Residential care	-	30
	Nursing care	-	170
	Domiciliary care	-	90
	Day care	-	-
	Other services	-	-
	<b>Total</b>		-
Total	Residential care	-	270
	Nursing care	-	820
	Domiciliary care	-	480
	Day care	-	-
	Other services	-	10
	<b>Total</b>		-

Source: CIW, (2016) Chief Inspectors Annual Report, 2015-16; CIW: Number of registered services, accessed November 2017; [www.Carehome.co.uk](http://www.Carehome.co.uk); the Data Cymru SCWDP workforce data collection 2016; All numbers rounded to nearest 10. Totals may not equal the sum of services due to rounding.

### 2.1.2 Non-regulated service providers

The CIW database of registered services does not contain any information about non-regulated adult social care providers in Wales. Non-regulated services are those which are not inspected by CIW, and include the provision of community care, advice and guidance, befriending services, non-personal care, residential care for homeless individuals and women's refugees.

To estimate the size of the number of non-regulated service providers, information from the IDBR, SfC and CIW was used. The estimation process involved:

- Data was taken from the IDBR which showed the total number of local sites in the relevant Standard Industrial Classification (SIC) code classes
- Information from SfC was used to estimate the proportion of these local sites which were providing adult social care (as the SIC code class includes providers of other caring and charitable services, such as children's services). This was

multiplied by the number of local sites in the IDBR for Wales to provide an estimate of the total number of adult social care sites.

- The number of regulated adult social care sites (taken from the CIW database) was subtracted from the total number of adult social care sites. This provided an estimate of the number of non-regulated adult social care sites in Wales.
- The proportion of non-regulated providers in each type of service was taken from the SfC estimates in England, and applied to the total number of non-regulated providers in Wales.

It should be noted that there are difficulties in how businesses identify themselves (SIC code category) and the coding provided in the CIW. Large businesses can offer services across multiple SIC code categories, so may be in a different SIC code category whilst providing care. The calculations of non-regulated adult social care sites are based on assumptions and data manipulation, and is therefore less certain than the data taken from the CIW.

Therefore, the estimates of the non-regulated sector are not as robust as the estimates of the regulated sector. More details of this methodology can be found in Annex 1.

Table 2.2 presents the number of non-regulated adult social care sites in Wales. In summary, it is estimated that there are nearly 500 locations providing non-regulated services. These are estimated to mainly (54%) provide residential care services.

Table 2.2 Number of employers – non-regulated services, 2016

Type of provider	Type of service	Number of service providers	Number of sites providing services
Total	Residential care	-	260
	Nursing care	-	-
	Domiciliary care	-	40
	Day care	-	60
	Other services	-	120
	<b>Total</b>	-	<b>480</b>

Source: CIW, (2016) Chief Inspectors Annual Report, 2015-16; CIW: Number of registered services; IDBR; Skills for Care National Minimum Dataset – Social Care; Assumptions accepted as reasonable by Social Care Wales; All numbers rounded to nearest 10. Totals may not equal the sum of services due to rounding.

### 2.1.3 Direct payment recipients

The number of individuals receiving direct payments is collected by the Welsh Government, and in 2016 an estimated 5,900 adults received direct payments from local authorities. Individuals can use the money they receive from direct payments for a variety of purposes, including employing their own staff, residential or day care, or paying subscriptions and memberships to support themselves.

Some individuals receiving direct payments will directly employ Personal Assistants (PAs) to provide care. Of those employing PAs, some will employ social care workers from an agency. These agencies will be captured in the CIW data. However, some direct payment recipients will choose to directly employ PAs. These individuals act as employers, but will be excluded from the IDBR and CIW data, and are not captured in the estimates above.

Operating on the assumption that situation in Wales is comparable with that in England, SfC estimates were used to estimate the number of direct payment recipients who directly employ PAs in Wales. SfC estimate that in England just under one third (29%) of people receiving direct payments directly employ PAs. This percentage has been used to estimate the number of direct employers in Wales. In Wales, this would mean that there are an estimated 1,700 individuals who employ PAs (see Table 2.3).

Table 2.3 Number of individual employers, 2016

Type of service	
Number of individuals receiving direct payments	5,900
Percentage who directly employ PAs	29%
Estimated number of individuals who directly employ PAs in Wales	1,700

Source: StatsWales - Adults receiving services by local authority, client category and age group; Skills for Care 'Individual employers and Personal Assistants'; All numbers rounded to nearest 100.

## 2.2 Number of jobs

A number of data sources have been used to estimate the number of jobs in the adult social care sector in Wales. These include information collected by Social Care Wales and Data Cymru, the Welsh Government and research by SfC. More details about the methodology are presented in Annex 1. The number of jobs relates to all job roles in the adult social care – those providing care to service users and all support staff (for example cleaners, security staff).

### 2.2.1 Regulated service and public sector provision

The Welsh Government, through data collected by local authorities, provide data for the number of public sector jobs in the adult social care sector. This data can be differentiated by the services the jobs are involved with, and jobs for children's care services can be easily identified and removed from the analysis. The number of FTEs is also provided in the dataset.

Social Care Wales collect information about the number of jobs in regulated services commissioned by local authorities. This is collected in the Social Care Workforce and Development Programme (SCWDP) research (Data Cymru, 2016). The research allows the number of jobs to be differentiated by type of service and between type of provider.

The SCWDP research does not provide the number of FTE jobs in regulated services. However, it provides a breakdown of the percentage of staff who work full-time and part-time. (52% work full-time and 48% part-time). These percentages were used to estimate the number of FTE staff working in regulated services in the private and voluntary sectors.

Table 2.4 presents the number of jobs and the number of FTE in the adult social care sector in Wales. It shows that:

- There are an estimated 72,100 jobs in the regulated adult social care sector, and this equates to 54,100 FTE staff;
- Most jobs are in the private sector. There are an estimated 44,500 jobs and 33,800 FTE (62%)

- There are 16,000 public sector jobs in the adult social care sector in Wales, and these fill over 11,000 FTE jobs.
- There are an estimated 11,700 jobs in the voluntary sector, which equates to 8,900 FTEs.

Table 2.4 Number of jobs - regulated service and public sector, 2016

Type of provider	Type of service	Jobs	Average hours	FTE
Public	Residential care	3,900	24.0	2,500
	Nursing care	-		-
	Domiciliary care	4,800	22.8	3,000
	Day care	2,600	27.4	1,900
	Other services	4,700	32.0	4,100
	<b>Total</b>		<b>16,000</b>	<b>26.6</b>
Private	Residential care	13,100	28.1	9,900
	Nursing care	5,800	28.1	4,400
	Domiciliary care	14,300	28.1	10,900
	Day care	4,400	28.1	3,400
	Other services	6,800	28.1	5,200
	<b>Total</b>		<b>44,500</b>	<b>28.1</b>
Voluntary	Residential care	3,400	28.1	2,600
	Nursing care	1,500	28.1	1,100
	Domiciliary care	3,800	28.1	2,900
	Day care	1,200	28.1	900
	Other services	1,800	28.1	1,400
	<b>Total</b>		<b>11,700</b>	<b>28.1</b>
Total	Residential care	20,400	-	15,100
	Nursing care	7,300	-	5,500
	Domiciliary care	22,900	-	16,700
	Day care	8,200	-	6,200
	Other services	13,400	-	10,700
	<b>Total</b>		<b>72,100</b>	<b>-</b>

Source: Data Cymru: SCWDP workforce data collection report; Staff of local authority social services departments by local authority and post title.; All numbers rounded to nearest 100. Totals may not equal the sum of services due to rounding.

## 2.2.2 Non-regulated service providers

The following steps were used to estimate the number of jobs in non-regulated adult social care services:

- The number of non-regulated service sites in Wales (see Table 2.2) was multiplied by the average number of jobs per site providing non-regulated adult social care services in England (estimated from SfC data). This provided an estimate of the total number of jobs in non-regulated services in Wales.
- The proportion of jobs in each type of non-regulated service in England (Day Care, Other services etc., estimated from SfC data) was multiplied by the total

number of non-regulated adult social care jobs in Wales to provide an estimate of jobs by type of service.

- The same full-time / part-time split as was described in the regulated service sector (section 2.1) was applied to workers in the non-regulated sector to estimate the number of FTEs.

Table 2.5 presents the estimated number of jobs in non-regulated adult social care services. It shows that there were an estimated 7,500 jobs and 5,700 FTEs. More details of this methodology can be found in Annex 1.

**Table 2.5 Number of jobs – non-regulated sector, 2016**

Type of provider	Type of service	Jobs	Average hours	FTE
Total	Residential care	4,300	28.1	3,300
	Nursing care	-	-	-
	Domiciliary care	600	28.1	500
	Day care	900	28.1	700
	Other services	1,900	28.1	1,400
	<b>Total</b>	<b>7,500</b>	<b>28.1</b>	<b>5,700</b>

Source: CIW, (2016) *Chief Inspectors Annual Report, 2015-16*; CIW: *Number of registered services*; IDBR; *Data Cymru: SCWDP workforce data collection report*; *Skills for Care: Size and Structure of the Adult Social Care sector in England*; All numbers rounded to nearest 100. Totals may not equal the sum of services due to rounding.

### 2.2.3 Direct employers

There are no official estimates of the number of directly employed PAs in Wales. A recent study by SfC in England provides robust estimates of the number of people employing PAs (29% of direct payment recipients), the number of workers they employ (an average of 2.1 workers per employer) and the number of hours PAs work a week (17 hours per week). Using this research and the number of direct employers (Table 2.3), it was estimated that there are 3,600 PA jobs in Wales. This equates to 1,600 FTE.

**Table 2.6 Number of Personal Assistants**

Type of service	Jobs	Average hours	FTE
Personal Assistants	3,600	17 / week	1,600

Source: *StatsWales - Adults receiving services by local authority, client category and age group*; *Skills for Care 'Individual employers and Personal Assistants'*; All numbers rounded to nearest 100

## 2.3 Summary

The summary tables below (Table 2.7 and Table 2.8) present a summary of the size and structure of the adult social care sector in Wales. In 2016, it was estimated that there were over 2,000 sites providing adult social care in Wales. If direct employers are included, there are over 3,700 employers in the adult social care sector in Wales. There are nearly 80,000 jobs at these sites (excluding directly employed PAs; over 83,000 if PAs are included), which is the equivalent of 60,000 FTEs (61,600 if PAs are included).

Table 2.7 Total sites providing adult social care in Wales - 2016

Type of service	Number of sites where services are provided
Residential care	530
Nursing care	820
Domiciliary care	520
Day care	60
Other services	130
Direct employers	1,700
<b>Total – excluding direct employers</b>	<b>2,070</b>
<b>Total – including direct employers</b>	<b>3,760</b>

Source: Table 2.1 to Table 2.6; All numbers rounded to nearest 10. Totals may not equal the sum of services due to rounding.

Table 2.8 Total number of jobs in the adult social care sector in Wales - 2016

Type of service	Jobs	FTE
Residential care	24,700	18,100
Nursing care	7,300	5,500
Domiciliary care	23,500	16,800
Day care	9,100	6,800
Other services	15,300	12,000
Personal Assistants	3,600	1,600
<b>Total – excluding Personal Assistants</b>	<b>79,800</b>	<b>60,000</b>
<b>Total – including Personal Assistants</b>	<b>83,400</b>	<b>61,600</b>

Source: Table 2.1 to Table 2.6; All numbers rounded to nearest 100. Totals may not equal the sum of services due to rounding.

### Evidence 1 Employment by nationality

The adult social care sector, like many others in the UK employs workers from other nations. The SSSC undertook an analysis of the social care workforce by nationality, using data from the APS, for all nations of the UK. It was not possible to disaggregate adult and children's services for this analysis and the number of relevant responses in the APS was small, therefore percentages were reported.

In Wales, since 2011 the percentage of workers from the UK in the social care sector has remained relatively stable (between 94.5% and 96.3%). However, the make-up of the non-UK (or migrant) workforce has altered in this time. Although representing a small proportion of the total workforce, the percentage of non-EU workers has decreased (3.9% in 2011, to 1.4% in 2015, with an increase to 2.2% in 2016). At the same time, the percentage of the workforce made up of EU workers has increased from 1.6% to 2.4%.

The effect of Brexit on EU workers in the adult social care sector is unknown. If Brexit reduces the supply of adult social care workers from other EU countries, employers will have to recruit from other sources. This could lead to an increase in the proportion of the workforce who are born in the UK, or to a reversal of the trend of a decreasing proportion of workers being recruited from non-EU countries.

### 3 Income approach

The first approach used to produce estimates of GVA in the sector is the income method. The total income received by representatives of the sector in the form of wages and other income provides an estimate of the value added by the sector. These types of income are estimated using earnings (for wages) and the Gross Operating Surplus generated in the sector (for other income). In the case of the adult social care sector, the large majority of income in the sector will be earned in wages paid to social care workers.

#### 3.1 Earnings - regulated and public sector

The main source of information for earnings in Wales is the Annual Survey of Hours and Earnings (ASHE). However, the data from ASHE overestimates actual earnings in the adult social care sector due to how the data is collected.<sup>3</sup> Therefore, data collected by SfC in England (NMDS-SC) has been used alongside data from ASHE to estimate the earnings in the adult social care sector in Wales.

Earnings information provided by SfC has been adjusted using information from ASHE. The average earnings in the adult social care sector in ASHE in Wales have been divided by the average earnings from the sector in ASHE in England, to obtain the ratio of earnings in the sector between the two nations. This ratio was then multiplied by the value of earnings in England from the NMDS-SC. An additional benefit of using data from SfC is that it allows earnings to be disaggregated by type of provider and type of service provided.

The average earnings for a FTE in the adult social care sector in Wales is presented in Table 3.1. This shows that:

- The average earnings in the sector are £16,900 per FTE.
- The average earnings per FTE in the public sector are estimated to be higher than in the private and voluntary sectors, for all types of service (more than 12% higher for all types of service).
- The total value of earnings in the adult social care sector in Wales is estimated to be £913 million.
- Although earnings per FTE are higher in the public sector, the highest proportion of total earnings are in the private sector (£529 million, 58%), since this is where most of the workforce is employed.

Earnings in the adult social care sector in Wales are lower than average earnings in Wales. The average earnings per FTE in the regulated adult social care sector in Wales was estimated to be £16,900. Average (mean) earnings for a FTE in Wales are estimated to be £29,200 (average earnings for a full-time worker) in 2016. Therefore, the earnings in the adult social care sector represent 58% of average earnings.

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<sup>3</sup> ASHE estimates do not include self-employed workers, or jobs in businesses which are not required to be PAYE registered (most likely small firms with low levels of pay). Therefore the ASHE estimates exclude many low paying jobs, which can lead to an overestimation of earnings.

Table 3.1 Estimated average and total earnings in the regulated adult social care sector, 2016

Type of provider	Type of service	FTEs	Earnings per FTE	Total (£'000)
Public	Residential care	2,500	19,400	48,786
	Nursing care	0	18,800	0
	Domiciliary care	3,000	18,100	53,509
	Day care	1,900	18,300	35,278
	Other services	4,100	26,300	107,446
	<b>Total</b>		<b>11,500</b>	<b>-</b>
Private	Residential care	13,100	15,800	156,872
	Nursing care	5,800	16,800	73,318
	Domiciliary care	14,300	14,400	157,002
	Day care	4,400	16,100	54,142
	Other services	6,800	16,900	87,847
	<b>Total</b>		<b>44,500</b>	<b>-</b>
Voluntary	Residential care	3,400	15,800	41,218
	Nursing care	1,500	16,800	19,264
	Domiciliary care	3,800	14,400	41,252
	Day care	1,200	16,100	14,226
	Other services	1,800	16,900	23,082
	<b>Total</b>		<b>11,700</b>	<b>-</b>
Total	Residential care	14,900	-	246,876
	Nursing care	5,500	-	92,583
	Domiciliary care	16,400	-	251,764
	Day care	6,100	-	103,646
	Other services	10,600	-	218,375
	<b>Total</b>		<b>53,500</b>	<b>£16,900</b>

Source: Annual Survey of Hours and Earnings; Labour Force Survey: Skills for Care National Minimum dataset – social care; Assumptions accepted as reasonable by Social Care Wales; FTEs and earnings rounded to nearest 100. Individual row totals may be not sum due to rounding. Totals may not equal the sum of services due to rounding.

## 3.2 Earnings - non-regulated sector

Table 3.2 presents the earnings in the non-regulated adult social care sector in Wales. Again, the estimated number of FTEs has been multiplied by the average earnings for an FTE. The value of earnings in the non-regulated adult social care sector in Wales is estimated to be £93 million.

Table 3.2 Estimated average and total earnings in the non-regulated adult social care sector, 2016

Type of provider	Type of service	FTEs	Earnings per FTE	Total (£'000)
Total	Residential care	3,300	15,800	51,534
	Nursing care	-	-	-
	Domiciliary care	500	14,400	6,569
	Day care	700	16,100	10,997
	Other services	1,400	16,900	24,386
	<b>Total</b>	<b>5,700</b>	<b>16,200</b>	<b>93,448</b>

Source: Annual Survey of Hours and Earnings; Labour Force Survey: Skills for Care National Minimum dataset – social care; Assumptions accepted as reasonable by Social Care Wales; FTEs and earnings rounded to nearest 100. Individual row totals may be not sum due to rounding. Totals may not equal the sum of services due to rounding.

### 3.3 Gross Operating Surplus

In addition to earnings / wages, additional economic income is generated by the adult social care sector. This is estimated by the Gross Operating Surplus (GOS). GOS is defined as income minus operating costs. In estimating GOS, it is assumed that only private sector care providers are run 'for profit', and therefore generate a GOS (further details on the calculation of GOS can be found in Annex 1 (A1.1 and A1.3.2)).

The estimation of the GOS in the adult social care sector will include the following costs:

- Staff costs;
- Materials required to deliver day to day services;
- Transportation costs; and
- Other day to day costs associated with providing adult social care.

Costs which are excluded from the estimation of GOS are:

- Rents;
- Exceptional purchases (such as repairing property or capital equipment);
- Depreciation and amortisation of capital assets (the decrease in value of an asset as it is used and aged, for example vehicles or computer systems);
- Interest payments on money owed; and
- Taxation.

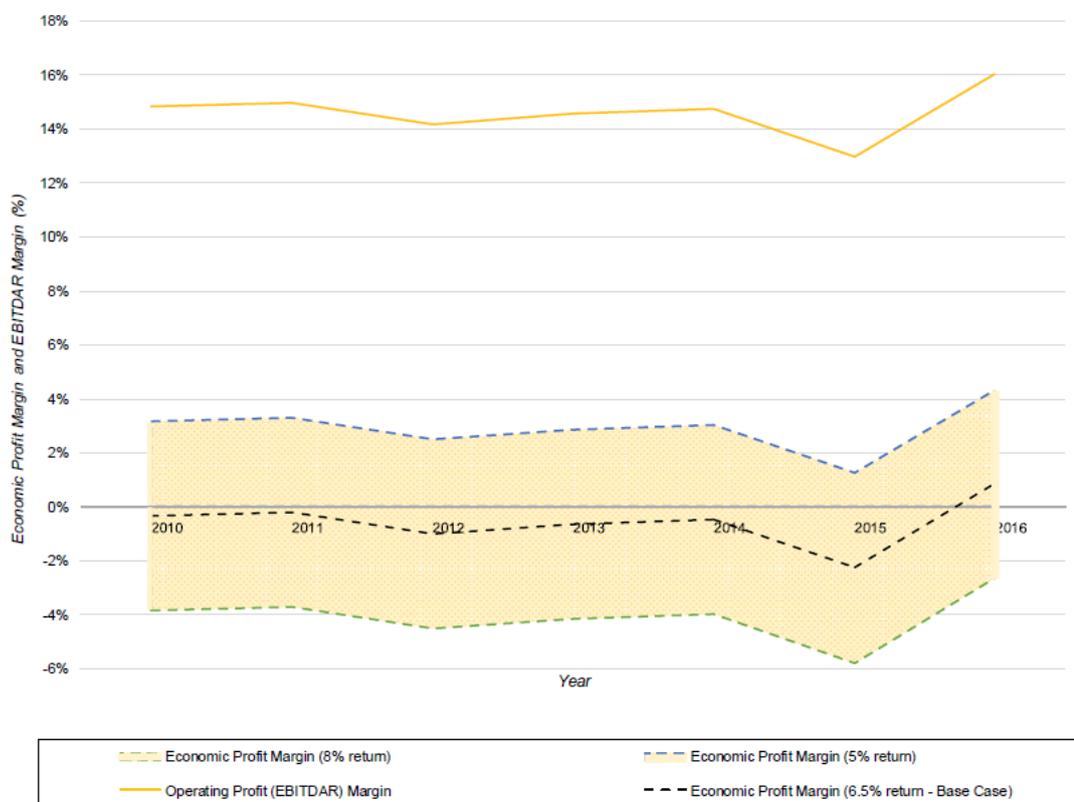
**It is important to note that the GOS does not equal the profit taken by owners and shareholders.** Only a subset of total costs are included in the GOS calculation. The GOS is the equivalent of earnings before interest, taxes, depreciation, amortization and restructuring or rent costs (EBITDAR).<sup>4</sup>

**A positive GOS can lead to small or even negative overall profits. This is because the costs which are excluded from the estimated GOS can equal or exceed the value of the GOS.** Figure 3.1 (taken from Competition and Markets Authority (CMA), 2017) illustrates this. Despite an average GOS of between 14%

<sup>4</sup> The EBITDAR value has been used in the analysis as it is the preferred measure in both the LaingBuisson report and the CMA market analysis. The EBITDA measure, where rents and restructuring costs are assumed to be operating costs is used in the sensitivity analysis in Annex 1

and 16%, the level of overall economic profit in the adult social care sector (where all costs are included) is estimated to be close to zero.

Figure 3.1 Residential care industry operating surplus profile, 2010-2016



Source: CMA (2017) Care Homes Market Study – figure 4.3

Two main studies have provided insights into the GOS in the residential care sector. LaingBuisson (2017) provides detailed information for the accounts of the big six residential care providers. This shows an average GOS (or EBITDAR earnings) of nearly 20%; but this leads to a significant pre-tax loss.

The CMA (2017) provides a more detailed assessment of GOS in the residential care sector. This examined the annual accounts of all residential care operators in the UK that are required to file their accounts at Companies House (CH). This found that in 2015/16 (the most recent year that comprehensive information was available), the GOS in the sector was around 16%, only marginally lower than in the LaingBuisson report.

For this study, a detailed examination of the financial returns of all adult social care providers was not undertaken. To estimate the GOS in residential care, the average GOS (EDITBAR) value from the CMA study has been used as an assumed GOS margin. This is because the CMA estimate includes all adult social care providers in the UK who filed reports at CH, and is assumed to be a reasonable measure of GOS in each nation of the UK.

To estimate the value of GOS, the assumed GOS margin (16%) was multiplied by the total output from the private residential sector. This gave an estimate of nearly £87 million of GOS in the residential adult social care sector in Wales.

The GOS for domiciliary care providers has been estimated using information taken from the United Kingdom Homecare Association (UKHCA, 2018). This research provided information which was used to estimate an equivalent of the EBITDAR value to represent GOS. It was estimated that the GOS margin in the home care market was 11.3% for private domiciliary providers and 8.3% for voluntary providers.<sup>5</sup> This is a lower estimated value of GOS than for residential care services. This could be because there are lower rental costs and less capital equipment is used (meaning there is less depreciation and exceptional purchases).

The estimated GOS in the domiciliary sector is calculated by multiplying these values by the output of the private and voluntary domiciliary care sector. This was estimated to be nearly £34 million in Wales in 2016.

There is no information available for the value of GOS for day care and other services. Therefore, no attempt has been made to estimate the GOS in these services. Finally, it has been assumed that there is no GOS in the employment of PAs – it is assumed that they are directly employed and there is no additional income above their pay.

### 3.4 Direct employers

Research by SfC (2017) has produced estimates of the average earnings of PAs in England (£17,500 per FTE). The average earnings for a PA FTE in Wales have been calculated using the same approach as outlined in section 3.1. This is estimated to be £15,600. It is estimated that there are 1,600 FTE PAs in Wales. This means that the total earnings of PAs in Wales are estimated to be £26 million (see Table 3.3). More details of this methodology can be found in Annex 1.

Table 3.3 Estimated average and total earnings of Personal Assistants, 2016

Type of service	Earnings per FTE	FTEs	Total (£'000)
Personal Assistants	£15,600	1,600	25,549

Source: Annual Survey of Hours and Earnings; Labour Force Survey: Skills for Care National Minimum dataset – social care; Assumptions accepted as reasonable by Social Care Wales; FTEs and earnings rounded to the nearest 100. Individual row totals may be not sum due to rounding.

### 3.5 Estimated GVA

The estimated level of GVA is calculated by summing the value of total earnings and GOS generated in the income approach. In Wales in 2016, it was estimated that adult social care GVA was £1.2 billion using this approach. The largest proportion of GVA is estimated to be in the residential care sectors (28% of the total value of the sector), although the domiciliary and other services sectors also have a large proportion of the total GVA (see Table 3.4).

<sup>5</sup> UKHCA (2018) A Minimum Price for Homecare. Indicators excluded in the estimated GOS were: Net profit / surplus; Premises, utilities and services; and Other Business overheads. Indicators included in the GOS estimate were: care worker costs; staffing, recruitment and training; consumables and professional costs. For voluntary providers, the net profit / surplus was assumed to be zero. These indicators were excluded as it is assumed the costs would be included in the EBITDAR measure.

Table 3.4 Earnings estimates of adult social care and related GVA

	Earnings (£'000)	GOS (£'000)	GVA estimates (£'000)
Residential care	298,412	29,600	328,012
Nursing care	92,583	57,734	150,317
Domiciliary care	258,333	33,933	292,266
Day care	114,643	0	114,643
Other services	242,761	0	242,761
Personal Assistants	25,549	0	25,549
<b>Total</b>	<b>1,032,281</b>	<b>121,268</b>	<b>1,153,549</b>

Source: Inter-departmental Business Register; CIW, (2016) Chief Inspectors Annual Report, 2015-16; CIW: Number of registered services; Skills for Care Size and Structure of the Adult Social Care sector in England; Data Cymru: SCWDP workforce data collection report; Staff of local authority social services departments by local authority and post title; Annual Survey of Hours and Earnings; Labour Force Survey: Skills for Care National Minimum dataset – social care; LaingBuisson (2017) Care of Older People; CMA (2017); Assumptions accepted as reasonable by Social Care Wales. Individual row totals may be not sum due to rounding. Totals may not equal the sum of services due to rounding.

### Evidence 2 Anticipated growth in demand for services in Wales

The population of Wales is estimated to grow by over 150,000 people by 2039, to a total population of 3.3 million (a 5% growth in population). However, the population of individuals aged 65 or over is anticipated to grow by 250,000 (from 636,000 in 2016). This represents a growth of 40% in the number of people aged 65 or over in Wales (and a decrease in the number of people aged under 65).

This is expected to drive an increase in demand for adult social care in future years in Wales. The UK Commission for Employment and Skills (UKCES) produced estimates of future demand for employment in different occupational groups. The research projected future demand until 2024. The adult social care sector was not modelled as a specific sector, and the most appropriate category for the sector would be the occupational group “Caring, Leisure and other service activities”. In Wales, employment in this group was estimated to grow by an average of 0.9% each year between 2014 and 2024. This provides further evidence that the demand for adult social care is likely to increase in the future in Wales.

## 4 Expenditure approach

The second method to estimate the economic value of the adult social care sector is the expenditure approach. This approach involves estimating the total level of expenditure on adult social care in Wales (public and private funding). This is then converted to GVA (output less purchase of intermediate goods and services) on the basis of turnover (represented by expenditure) to GVA ratios provided in the Annual Business Survey (ABS).

Expenditure flows from funders to the providers of adult social care services. However, there are different sources of funding for adult social care services. These are:

- Public sector funding – individuals using care services who are wholly funded by the state. This includes expenditures made directly between the public sector and the provider of adult social care services to deliver services to individuals, and funding given directly to service users to purchase their own care (direct payments);
- Self-funders – individuals who use care services and pay the full costs themselves; and
- Co-funding – individuals who receive some public sector funding for care services, but who are required to ‘top-up’ the public funding to pay the full care charges.

### 4.1 Public sector funding and co-funding

The Welsh Government collects data on the public sector funding of adult social care. It also collects data on public sector “income” for adult social services. This is defined as payments from arrangements with other organisations and client contributions to services. This information is presented in Table 4.1, and shows:

- The total value of public sector expenditure was over £1.1 billion in 2015/16, with a further £286 million coming from client contributions and joint arrangements. This gives a total estimate of nearly £1.4 billion of gross expenditure of adult social care in Wales.
- Most of the public sector and co-funding expenditure was for older people (53% of gross expenditure).
- Care for older people was more likely to be partially funded by joint arrangements or co-funding than other types of care; 66% of all adult social care co-funding was for the care of older people.

Table 4.1 Public and co-funding of adult social care, 2015-16

Type of service	Public sector funding (£'000)	Co-funding (£'000)	Total (£'000)
Older people (65+)	546,823	188,243	735,066
Physically disabled (18+)	97,327	24,022	121,349
Learning disabled (18+)	343,088	55,465	398,553
Mental health needs (18+)	78,004	15,290	93,293
Other	36,866	3,291	40,157
<b>Total</b>	<b>1,102,107</b>	<b>286,311</b>	<b>1,388,418</b>

Source: Social services revenue expenditure by client group (£ thousand); Income from Sales, fees and charges – StatsWales. Totals may not equal the sum of services due to rounding.

## 4.2 Self-funding

The size and scale of expenditures on adult social care by self-funders is difficult to estimate. This is because there is no relevant data source which estimates either the level of expenditure or the number of individuals who fund their own care.

There are several recent studies that have explored self-funding of residential adult social care services. LaingBuisson (2017) estimate the proportion of residential and nursing care residents who are self-funders in Wales (32%). Previous studies have estimated that in England over 40% of care home places are for self-funders (IPC 2011, 2015). These estimates are similar to those presented in the LaingBuisson report, therefore the estimate of 32% for Wales appears to be consistent with other studies.

There is less evidence about the number of self-funders for non-residential adult social care. A review of existing evidence was undertaken to establish the size of the self-funder market for non-residential social care in the UK. A summary of the findings from these studies is presented in Annex 1. From this, it has been estimated that the proportion of older people who fund their own domiciliary, day and other care in Wales is 21%.

Individuals who self-fund their own care are unlikely to pay the same price for their care as those funded by the state. Several sources suggest that self-funders are likely to pay a higher fee for the same care services. The reasons for these differences could be due to market pressures (local authorities and the NHS buying services in bulk through tendering, and achieving favourable rates), or because providers are having to cross subsidise public sector clients by charging a premium to self-funders.

LaingBuisson (2017) includes an analysis of prices charged to self-funders, and found that on average the price for a self-funder was 46% (41% for nursing care) higher than the price for a publicly funded client. The CMA (2017) have also recently estimated the mark-up for self-funders as being over 40% in residential care. These are higher mark-up than previous estimates (which were closer to 20%, LaingBuisson and Joseph Rowntree Foundation, 2008; BUPA, 2011; University of East Anglia, 2011)). The CMA (2017) suggests that this could be due to the margins providers can make from publicly funded residents falling in recent years, therefore the higher mark-up for self-funders is needed to make the business sustainable. The 46% mark-up has been used in this analysis, and the mark-up has

been applied to the estimated unit costs for funded individuals. These unit costs are presented in Table 4.2.

The analysis of self-funding is presented in Table 4.2, by type of care provision. This suggests that in Wales, the total value of self-funded adult social care expenditure was over £400 million. The largest proportion of self-funding expenditure was for residential and nursing care (54% of the self-funded total). The total estimated value of expenditure on adult social care in Wales is over £1.8 billion.

Table 4.2 Estimated total expenditure in adult social care sector, 2015-16

	Public and co-funded (£'000)	Unit cost for self-funders (£ per year)	Number of self-funders	Self-funded expenditure (£'000)	Total expenditure (£'000)
Residential care	569,358	36,900	2,200	82,763	652,122
Nursing care	116,551	42,300	3,500	147,809	264,360
Domiciliary care	274,115	15,000	6,400	95,728	369,843
Day care	119,427	10,100	2,200	22,199	141,626
Other services	247,030	-	-	53,618	300,648
Direct payments	61,936	-	-	-	61,936
<b>Total</b>	<b>1,388,418</b>			<b>402,117</b>	<b>1,790,535</b>

Source: Social services revenue expenditure by client group (£ thousand); Income from Sales, fees and charges - StatsWales; LaingBuisson (2017) Care of Older People; PSSRU Unit Cost of Health and Social Care; Values for unit cost and number of self-funders is rounded to the nearest 100. Individual row totals may be not sum due to rounding. Totals may not equal the sum of services due to rounding.

### 4.3 Estimated GVA

The expenditures calculated above have been converted into GVA using turnover to GVA ratios for the adult social care sector from the ABS. Turnover to GVA ratios indicate the level of GVA that is expected to result in a particular sector, from a given level of expenditure. Applying these ratios to the estimated expenditures provides an estimate of GVA for the sector of £1.2 billion in 2015/16 in Wales (see Table 4.3). The largest proportion of GVA was from the residential and nursing care sub-sectors (£713 million; 59% of total GVA).

Table 4.3 Expenditure estimates of adult social care and related GVA, 2015-16

	Total expenditure (£'000)	Turnover to GVA ratio	GVA (£'000)
Residential care	652,122	77%	502,078
Nursing care	264,360	80%	210,656
Domiciliary care	369,843	49%	179,771
Day care	141,626	49%	68,841
Other services	300,648	67%	200,342
Direct payments	61,936	67%	41,272
<b>Total</b>	<b>1,790,535</b>		<b>1,202,959</b>

Source: Social services revenue expenditure by client group (£ thousand); Income from Sales, fees and charges; LaingBuisson (2017) Care of Older People; PSSRU Unit Cost of Health and Social Care; Annual Business Survey. Individual row totals may be not sum due to rounding. Totals may not equal the sum of services due to rounding.

### **Evidence 3 Effect of public funding on adult social care**

There are different types of goods and services in an economy, and the markets for different types of goods and services need to be treated differently to ensure that the market functions efficiently. Examples of different types of goods are:

Private goods – a good or service which can be purchased, and when the good is purchased it prevents other individuals from consuming it. This is the most common type of good.

Public goods – a good or service which when one individual benefits from its use it does not prevent anyone else benefitting from the good, and when it is used it does not reduce the amount available to others.

Quasi-public goods – a good or service which falls between public and private, possessing some of the qualities of a public good.

Merit good – a good which provides wider benefits to the economy when consumed.

Private goods with market failures – goods or services which are private goods but where the market does not function correctly, for example due to a lack of information.

If adult social care was treated as a 'private good' (all individuals have to self-fund their own adult social care) there would be market failure. This is because some individuals do not have the resources to buy the adult social care they require. Other individuals do not have complete information about their need for social care or the cost of the adult social care they require (for example the health conditions they could develop and their life expectancy), and therefore underestimate the quantity of social care they require.

There are also positive externalities (such as the prevention of healthcare, allowing family members and informal carers to remain in work). This means that individuals underestimate the value of adult social care they would need to purchase.

Therefore, a private market for adult social care would not operate efficiently and would be seen as a market failure. Adult social care should be viewed as a quasi-public good (as all individuals in a society can benefit from it) or a merit good (generating further benefits). Rather than crowding out private investment, the public funding supports a better functioning adult social care market.

## 5 Output approach

The final approach to measure the GVA of the adult social care sector is the output approach. This measures the output of the sector by estimating the number of units of each type of service provided, and multiplying this by a unit cost for the service. This estimates the total level of output (the equivalent of turnover) in the sector, which can then be converted to GVA (output less purchase of intermediate goods and services).

### 5.1 Output from the residential care

#### 5.1.1 Residential care for older adults

LaingBuisson (2017) provides useful data relating to the provision of care services for older people. This data includes the capacity of nursing and residential care homes in Wales and the occupancy rate. The Welsh Government also produce estimates of the capacity of care homes in Wales, and the figures are very close to those provided in the LaingBuisson report. The figures in LaingBuisson (2017) have been used in this analysis.

The data shows that the private sector is the largest provider of adult social care in Wales, and represents 66% of the total residential care capacity, and 85% of total nursing care capacity for older people (a total of 18,000 beds across the residential and nursing sector).

The Personal Social Services Research Unit (PSSRU) provide annual estimates for the unit costs of adult social care in England (PSSRU, 2016). These estimates have been used to estimate the output of the residential care in Wales for 2015/16. These estimates were selected as they provided more differentiation by type of care and provider. The PSSRU (2016) estimates unit costs for England, and these prices have been adjusted to Welsh prices using information from the LaingBuisson (2017).

Table 5.1 presents an estimate of the total output of residential and nursing care for older individuals in Wales. This was calculated by multiplying the number of occupants by the weekly cost. The total output of the residential and nursing care sector for older people was estimated to be over £760 million. The private sector has the largest output (£546 million; 72% of total output), and the output for nursing care is higher than for residential care (nursing care represents 57% of the total residential and nursing care output).

Table 5.1 Capacity and estimated output of care home sector – older people

		Private	Voluntary	Public	Total
Capacity (total places)	Nursing	10,800	1,000	1,000	12,800
	Residential	7,100	1,100	2,600	10,800
Occupancy (places)	Nursing	10,200	900	900	12,000
	Residential	6,200	900	2,200	9,400
Output (£'000)	Nursing	360,839	31,830	55,724	448,394
	Residential	185,002	27,410	112,106	324,517
Unit cost (£ per week)	Nursing	680	680	1,170	
	Residential	570	570	970	

Source: LaingBuisson (2017) *Care of Older People*; StatsWales: *Adults receiving services by local authority, client category and age group*; CSSIW register of services; PSSRU *Unit Cost of Health and Social Care (2016)*. Output totals may be not sum due to rounding.

### 5.1.2 Residential care for younger adults

The data from LaingBuisson (2017) does not provide full coverage of the adult social care residential sector. It does not provide estimates of the capacity or occupancy of residential and nursing care services provided to younger adults (aged 18 – 64).

The Welsh Government provides statistics for the number of beds available and the average number of younger adults with mental health and learning disabilities who are resident in residential and nursing care facilities in Wales. These statistics have been used to estimate the capacity and output for residential care for adults with mental health and learning disability needs.

A unit cost for residential care for adults with mental health and learning disability needs has been calculated using the PSSRU (2016) estimates of the unit cost of social care in England. The unit cost has been weighted based on the number of individuals with mental health and learning disabilities in Wales, and the prices have been adjusted to Welsh prices using information from the LaingBuisson (2017).

Using the information described above, Table 5.2 presents the estimated output for residential care of younger adults with learning disabilities and mental health needs. In 2015/16, it was estimated that the output for residential care of younger adults was £177 million in Wales.

Table 5.2 Capacity and estimated output of care home sector – younger adults

		Private	Voluntary	Public	Total
Capacity (places)	Nursing	-	-	-	-
	Residential	-	-	-	3,600
Occupancy (places)	Nursing	-	-	-	-
	Residential	-	-	-	3,400
Output (£'000)	Nursing	-	-	-	-
	Residential	-	-	-	176,885
Unit cost (£ per week)	Nursing	-	-	-	-
	Residential	-	-	-	990

Source: PSSRU Unit Cost of Health and Social Care (2016); LaingBuisson (2017); StatsWales: Adults receiving services by local authority, client category and age group. Output totals may be not sum due to rounding.

## 5.2 Output from non-residential adult social care

An approach using data from the Welsh Government and PSSRU has been used to estimate the output of the non-residential care sector in Wales.

The Welsh Government provides data for the number of individuals receiving different types of non-residential care in Wales. This provides details of the number of people receiving public funding for care (31,000) but not the number of self-funders. The number of self-funders receiving non-residential care was estimated to be 8,600. The number of individuals receiving care is the sum of self-funders and those receiving payment for their care.

The unit costs for non-residential care has been calculated from the PSSRU (2016) estimates. The total output is estimated by multiplying the unit cost by the number of users and the volume of care used per year. It was not possible to estimate the usage and unit cost of other services, due to the wide variety of services included in other services and a lack of available data. Therefore, the level of expenditure has been used as the value of output for other services.

Table 5.3 presents the output of the non-residential care sector. This shows that the total output of the sector in Wales was estimated to be nearly £800 million in 2015/16. The domiciliary care sector has the largest output in the non-residential care sector in Wales.

Table 5.3 Estimated output of other adult social care sectors

	Number of users	Unit per person per year	Unit cost (£)	Total output (£'000)
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	Number of users	Unit per person per year	Unit cost (£)	Total output (£'000)
Domiciliary care	29,400	572	23	383,486
Day care	10,100	130	67	88,930
Other	15,000	-	-	300,648
Direct payments <sup>6</sup>	1,700	884	15	22,530
<b>Total</b>				<b>795,594</b>

Source: StatsWales: Adults receiving services by local authority, client category and age group; PSSRU Unit Cost of Health and Social Care (2016); UK Home Care Association (2016) An overview of the domiciliary care market in the UK; ICF analysis. Output totals may be not sum due to rounding.

### 5.3 Estimated GVA

The estimated value of GVA in the adult social care sector in Wales is presented in Table 5.4. The GVA has been calculated using the estimated output in the sector described above, and turnover to GVA ratios from the ABS for relevant industries. Applying these ratios to the estimated expenditures provides an estimate of GVA for the sector of £1.2 billion in 2015/16 in Wales. The residential and nursing care sectors have the largest estimated GVA (£743 million; 33% and 31% of total GVA respectively).

Table 5.4 Output estimates of adult social care and related GVA

	Total output (£'000)	Turnover to GVA ratio	GVA (£'000)
Residential care	501,402	77%	386,037
Nursing care	448,394	80%	357,304
Domiciliary care	383,486	49%	186,402
Day care	88,930	49%	43,226
Other services	300,648	67%	200,342
Direct payments	22,530	49% <sup>7</sup>	10,951
<b>Total</b>	<b>1,745,390</b>		<b>1,184,262</b>

Source: StatsWales: Adults receiving services by local authority, client category and age group; LaingBuisson (2017); PSSRU Unit Cost of Health and Social Care (2016); Annual Business Survey; ICF analysis. Individual row totals may be not sum due to rounding. Totals may not equal the sum of services due to rounding.

<sup>6</sup> Only including individuals who directly employ Personal Assistants

<sup>7</sup> The turnover to GVA ratio is different here to the one used in section 4.3. This is because this estimate is only for individuals who directly employ either Personal Assistants (therefore the turnover to GVA ratio is estimated to be the same as for domiciliary care). In section 4.3, all individuals receiving self-directed funding are included in the Direct Payments line, therefore the turnover to GVA ratio reflects all the care activities they could use their funding for.

#### Evidence 4 Additional economic benefits of the adult social care sector

In addition to the direct economic value of the adult social care sector, the activities provided also deliver additional benefits and impacts for the wider economy. These additional impacts include:

**Health:** The provision of high quality adult social care can help to reduce hospital admissions and Accident and Emergency unit attendances among the cared for. It can also help to reduce pressure on the health service by reducing delays for people who are ready to leave hospital. A further benefit of a high quality adult social care sector is that it reduces the stress on unpaid carers. This means that unpaid carers are less likely to need to take absence from their paid employment or have absences from their job (if they are employed) due to the stresses of providing care.

**Employment:** A high quality adult social care sector can help to support individuals who receive care and unpaid carers remain in employment or (re)-enter the workforce. When an individual receiving care is provided with regular support that meets their needs, both they and any unpaid carers providing them with support can make appropriate arrangements if they want to enter/remain in work. This helps the UK economy by providing a supply of workers who can potentially address skills gaps and Hard to Fill Vacancies in the economy.

## 6 Indirect and induced effects

### 6.1 Introduction

The previous sections estimate the direct economic contribution of the adult social care sector in Wales. This section builds on that analysis to present estimates of the additional contribution of the adult social care sector to the wider economy through:

- **Indirect effects** - resulting from the purchase of intermediate goods and services by the adult social care sector in delivering its services, which support additional employment and GVA within its supply chain; and
- **Induced effects** - resulting from purchases made by those directly and indirectly employed in the adult social care sector, who use their earnings to buy other goods and services.

### 6.2 Indirect Effects

The adult social care sector purchases a wide range of goods and services from suppliers in other sectors to support the delivery of adult social care services. Common examples of purchases made by the adult social care sector will include cleaning products and services, food and drink, building maintenance services, utilities, financial services, education and training, furniture and household goods, medical supplies, transport services and fuel, etc.

These are known as intermediate purchases, and those made by the adult social care sector will support employment and GVA among supply chain businesses. Indirect effects are estimated using Type I multipliers (supply linkage effects). The ONS produces estimates of Type I multipliers, which can be used to estimate the indirect effects of different products and services on the wider UK economy. As there are no Welsh specific input-output (I-O) tables, the multipliers for the whole of the UK have been used.

The latest UK I-O analytical tables<sup>8</sup> provide estimates of Type I GVA, output and employment multipliers. The relevant product group for this study is the Residential Care and Social Work activities. This product group provides an exact match with SIC divisions 87 and 88 and therefore covers all adult social care activities as well as children-related social care activities. It is unlikely that the indirect effects in the adult social activities differ from those in children's social care services. Therefore, it has been assumed that these multipliers are appropriate for estimating the indirect impacts of adult social care activities.

The I-O tables produce separate output multipliers for social care activities delivered by:

- The private sector – the GVA multiplier is 1.32, which suggests that for every £1 of GVA generated by adult social care activities in the private sector, a further £0.32 of GVA is generated in the rest of the economy. The employment multiplier is 1.30, which suggests that for every one job in the adult social care sector, a further 0.30 of a job is provided in the rest of the economy;

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<sup>8</sup> ONS, Detailed United Kingdom Input-Output Analytical Tables, 2013 (*consistent with UK National Accounts Blue Book & UK Balance of Payments Pink Book*)

- The public sector – the GVA multiplier is 1.94, which suggests that for every £1 of GVA generated by public sector activities, a further £0.94 of GVA is generated in the rest of the economy. The employment multiplier is 1.65, which suggests that for every one job in the adult social care sector, a further 0.65 of a job is provided in the rest of the economy; and
- The non-profit / voluntary sector – the GVA multiplier is 1.56, which suggests that for every £1 of GVA generated by the voluntary sector, a further £0.56 of GVA is generated in the rest of the economy. The employment multiplier is 1.37, which suggests that for every one job in the adult social care sector, a further 0.37 of a job is provided in the rest of the economy.

The Type I multipliers are applied to the estimates of the direct economic contribution of the adult social care sector in Table 6.1. The table shows that indirect effects of intermediate purchases made by the adult social care sector were estimated to contribute an additional 31,000 jobs<sup>9</sup> and £554 to £583 million of GVA in Wales.

The additional GVA experienced by supply chain businesses represents 48% the direct contribution of the sector. Indirect effects are largest in the private sector, reflecting their relative importance in the sector. The additional jobs generated in supply chain businesses because of adult social care activities represent 37% of the total employment in the sector.

Table 6.1 Direct and indirect economic value of the adult social care sector

	Income approach	Expenditure approach	Output approach
<b>GVA</b>			
GVA (public sector) (£'000)	245,020	278,105	254,974
GVA (private sector) (£'000)	764,069	811,197	817,141
GVA (voluntary sector) (£'000)	144,460	113,658	112,147
<b>Total GVA (£'000)</b>	<b>1,153,549</b>	<b>1,202,959</b>	<b>1,184,262</b>
Type I multiplier		Private: 1.32 Public: 1.94 Voluntary: 1.56	
Indirect GVA (public sector) (£'000)	229,248	260,203	238,561
Indirect GVA (private sector) (£'000)	244,084	259,139	261,038
Indirect GVA (voluntary sector) (£'000)	80,406	63,262	62,421
<b>Total indirect GVA (£'000)</b>	<b>553,738</b>	<b>582,604</b>	<b>562,020</b>
<b>Total direct and indirect GVA (£'000)</b>	<b>1,707,287</b>	<b>1,785,563</b>	<b>1,746,283</b>
<b>Employment</b>			
Direct employment (public)		16,000	
Direct employment (private)		55,700	
Direct employment (voluntary)		11,700	
<b>Total direct employment</b>		<b>83,400</b>	
Type I multiplier		Private: 1.30 Public: 1.65 Voluntary: 1.37	

<sup>9</sup> These are jobs, not FTEs.

	Income approach	Expenditure approach	Output approach
Indirect employment (public sector)		10,400	
Indirect employment (private sector)		16,500	
Indirect employment (voluntary sector)		4,300	
<b>Total indirect employment</b>		<b>31,200</b>	
<b>Total direct and indirect employment</b>		<b>114,600</b>	

Source: ICF analysis; Employment values rounded to the nearest 100. Totals may not equal the sum of services due to rounding.

### 6.3 Induced Effects<sup>10</sup>

Induced effects are assessed using Type II multipliers that capture both indirect and induced effects. The I-O tables provide information which can be used to estimate the Type II multipliers in the UK. For a detailed description of the method used to estimate the Type II multipliers, see Annex 1. The relevant Type II multipliers are:

- the private sector – the GVA multiplier is 1.74 and the employment multiplier is 1.43;
- the public sector – the GVA multiplier is 2.55 and the employment multiplier is 1.82; and
- the non-profit / voluntary sector – the GVA multiplier is 2.05 and the employment multiplier is 1.52.

The Type II multipliers are divided by the Type I multipliers to provide the give multiplier value (1.32 for GVA, 1.11 for employment). The induced multipliers have been multiplied by the direct and indirect employment and GVA values to estimate the induced GVA and employment. The results are presented in Table 6.2.

The results suggest that induced effects (associated with the purchases of goods and services by individuals directly or indirectly employed by the sector) were estimated to support a further 12,000 jobs and over £543 million to £567 million of GVA in the wider economy. The induced GVA effect is similar to the indirect GVA effect, but considerably smaller than the indirect effect on jobs.

<sup>10</sup> ICF believes it can be misleading to attribute all induced effects to the economic contribution of a particular sector at the national level. Indirect effects related to purchases of intermediate goods and services can clearly be attributed to the adult social care sector as they would not take place if the adult social care sector did not exist. The same is not true for induced effects. If the adult social care sector did not exist, it is unlikely that the purchases of goods and services made by the majority of workers in the sector would change significantly. Workers who in the absence of the adult social care sector would be unemployed (and receiving benefits) would provide induced effects (net of the value of state benefit payments). However, many of those directly or indirectly employed by the adult social care sector would be employed in other jobs in other sectors if the adult social care sector did not exist. This is the case for all sectors and industries. Therefore, it can be misleading to represent these induced effects as being attributable to the sector and would cease to exist in the absence of the sector.

Table 6.2 Induced and total economic value of the adult social care sector

	Income approach	Expenditure approach	Output approach
<b>GVA</b>			
GVA (public sector) (£'000)	245,020	278,105	254,974
GVA (private sector) (£'000)	764,069	811,197	817,141
GVA (voluntary sector) (£'000)	144,460	113,658	112,147
<b>Total GVA (£'000)</b>	<b>1,153,549</b>	<b>1,202,959</b>	<b>1,184,262</b>
Type II multiplier		Private: 1.74 Public: 2.55 Voluntary: 2.05	
Induced multiplier		1.32	
Induced GVA (public sector) (£'000)	150,710	171,061	156,833
Induced GVA (private sector) (£'000)	320,365	340,125	342,618
Induced GVA (voluntary sector) (£'000)	71,457	56,221	55,473
<b>Total induced GVA (£'000)</b>	<b>542,532</b>	<b>567,406</b>	<b>554,924</b>
<b>Total direct, indirect and induced GVA (£'000)</b>	<b>2,249,820</b>	<b>2,352,970</b>	<b>2,301,207</b>
<b>Employment</b>			
Direct employment (public)		16,000	
Direct employment (private)		55,700	
Direct employment (voluntary)		11,700	
Total direct employment		83,400	
Type II multiplier		Private: 1.43 Public: 1.82 Voluntary: 1.52	
Induced multiplier		1.11	
Induced employment (public sector)		2,800	
Induced employment (private sector)		7,700	
Induced employment (voluntary sector)		1,700	
<b>Total induced employment</b>		<b>12,200</b>	
<b>Total direct, indirect and induced employment</b>		<b>126,800</b>	

Source: ICF analysis; Employment values rounded to the nearest 100. Totals may not equal the sum of services due to rounding.

## 6.4 The total economic contribution of adult social care sector in Wales

The adult social care sector is estimated to support a total of 127,000 jobs and £2.2 billion to £2.4 billion of GVA in the Wales. This includes all direct, indirect and induced effects. The indirect and induced effects are smaller than the direct economic effects of the adult social care sector. The indirect and induced effects account for around 95% the direct GVA generated, and around half of total direct employment (52%).

Public sector providers of adult social care services and their associated expenditures support 23% of the total jobs and between 28% and 30% of GVA (including indirect and induced effects). This is despite the public sector representing 19% of employment and between 21% and 23% of direct GVA. The differences are due to public sector multiplier effects being higher than for the private sector.

The overall direct, indirect and induced effects were estimated to represent 3.8% to 3.9% of all GVA and 9% of all jobs in Wales.

#### **Evidence 5 Value of informal care in Wales**

This research provides evidence of the economic value of the formal adult social care sector in Wales. However, the work of the sector is supported by unpaid individuals providing informal care to family members or friends. CarersWales have estimated the value of the informal care provided in Wales.

The research uses data from the 2011 Census and population estimates to calculate that over 380,000 individuals were providing nearly 479 million hours of informal care to adults in Wales in 2015. Using an estimate of £17 per hour of care provided, the value of informal care in Wales was estimated to be over £8 billion in 2015 – larger than the value of the formal adult social care sector in Wales.

## 7 Conclusion

This section provides a summary of the key findings of the economic analysis, including the five key indicators specified in the research aims. The economic indicators are then compared to other sectors within Wales, so that the size and scale of the adult social care sector can be identified, and to the other nations of the UK.

### 7.1 Summary of findings

The key findings from the research are presented in Table 7.1. This shows that in 2016, it was estimated that there were over 83,000 jobs in the adult social care sector, and there were nearly 62,000 FTEs. These jobs generated around £1.2 billion in GVA, and the level of productivity (GVA per worker) was estimated to be £18,700 to £19,500 per FTE.

The indirect effect of the adult social care sector was estimated to be over 31,000 jobs (23,000 FTEs) and between £554 and £583 million in GVA. The indirect effect is due to the purchase of intermediate goods and services by the adult social care sector.

The induced effect of the adult social care sector (additional spending by those directly and indirectly employed through the adult social care sector) was estimated to be over 12,000 jobs (9,000 FTEs) and between £543 million and £567 million of GVA.

The total direct, indirect and induced value of the adult social care sector in Wales was estimated to be nearly 127,000 jobs, nearly 94,000 FTEs and £2.2 billion to £2.4 billion in GVA.

Table 7.1 Summary of findings

	Income approach	Expenditure approach	Output approach
Total direct employment		83,400	
Total FTE employment		61,600	
Total direct GVA (£'000)	1,153,549	1,202,959	1,184,262
Estimated productivity per person	13,800	14,400	14,200
Estimated productivity per FTE	18,700	19,500	19,200
Indirect employment (jobs)		31,200	
Indirect employment (FTE)		23,000	
Induced employment (jobs)		12,200	
Induced employment (FTE)		9,000	
Total employment as a result of adult social care activity (jobs)		126,800	
Total employment as a result of adult social care activity (FTE)		93,600	
Indirect GVA (£'000)	553,738	582,604	562,020
Induced GVA (£'000)	542,532	567,406	554,924
<b>Total GVA as a result of adult social care activity (£'000)</b>	<b>2,249,820</b>	<b>2,352,970</b>	<b>2,301,207</b>

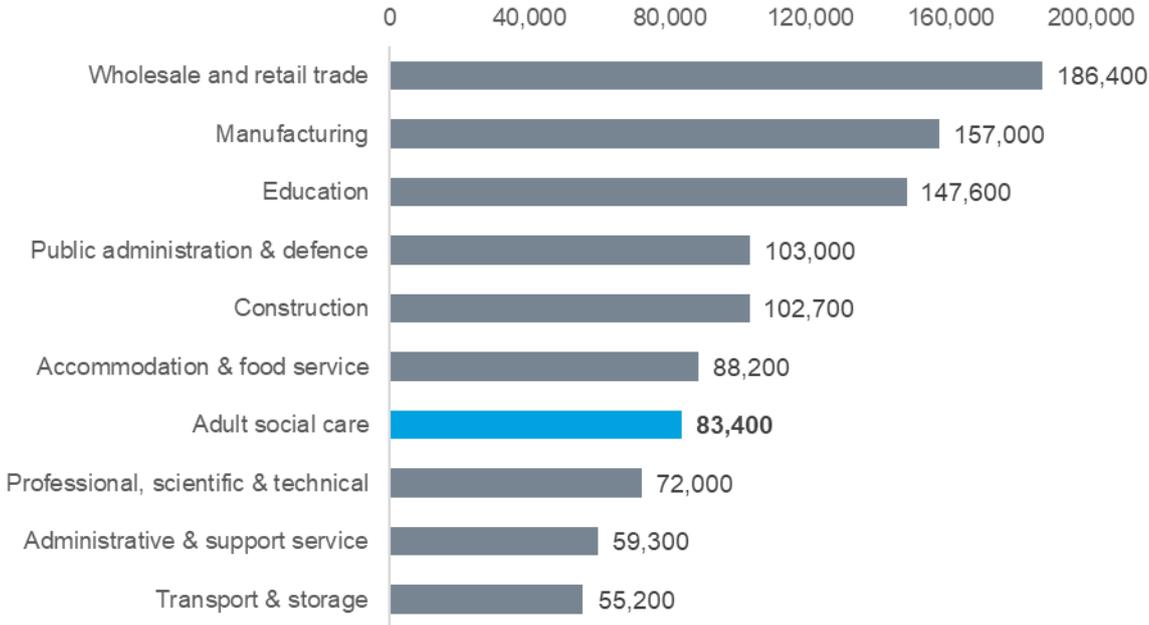
Source: ICF analysis; Employment and productivity values rounded to the nearest 100. Totals may not equal the sum of services due to rounding.

## 7.2 Benchmarking

The Annual Population Survey (APS) provides estimates of the number of individuals working in each broad sector in Wales. This allows the scale of employment in the adult social care sector to be compared to other sectors.

Figure 7.1 presents the employment by sector analysis, combining the findings from this research with data from the APS. This shows that the adult social care sector employs more workers than the transport and storage, administrative and support services and professional, scientific and technical sectors. Direct employment in adult social care represents 6% of total employment in Wales. This shows that adult social care is an important sector in terms of current employment in Wales.

Figure 7.1 Employment by sector in Wales (sectors with highest employment), 2016

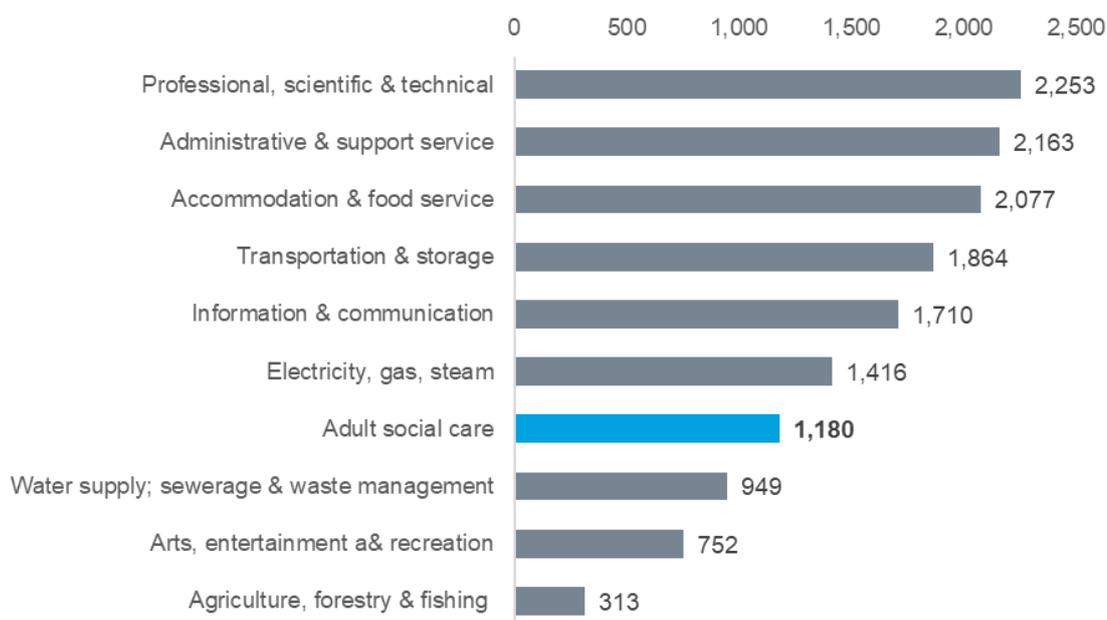


Source: Annual Population Survey; ICF analysis. Employment rounded to nearest 100. Human health and social work activities excluded from analysis

The estimated value of GVA by industry in Wales is presented in the Regional Gross Value Added statistical series. This presents GVA by broad industrial group. The total value of GVA in Wales in 2016 was estimated to be nearly £60 billion. Direct GVA from the adult social care sector (£1.2 billion) is estimated represent 2% of total Welsh GVA.

Figure 7.2 presents GVA estimates by sector, for a selection of economic sectors. This shows that adult social care generates lower values of GVA than the sectors with similar levels of employment (for example transport and storage and accommodation and food service). However, it still generates a significant proportion of Welsh GVA, and the value of GVA in the sector can be expected to rise in the future as demand for adult social care services grows.

Figure 7.2 GVA by broad sector (selected sectors), £millions, 2016



Source: Regional GVA statistical series; ICF analysis. Human health and social work activities excluded from analysis

The estimated value of productivity (GVA per FTE) in Wales has been estimated using data from the ONS Labour Productivity data series. The estimated value of productivity in Wales was £53,000. Productivity in the adult social care sector was estimated to be between 35% and 37% of the average productivity in Wales. The estimated level of productivity in the adult social care sector in Wales was lower than any specified sector in the Labour Productivity data series.

### 7.3 National comparisons

This research involved estimating the value of the adult social care sector in all the nations of the UK. The key findings from all nations are summarised in Table 7.2. This shows that the total value of adult social care sector in Wales is lower than in England and Scotland, but higher than in Northern Ireland in absolute terms. This is expected given the population of Wales. The estimates show that:

- The level of productivity in the workforce is lower in Wales than in England and Scotland, but comparable to Northern Ireland;
- The estimated GVA per capita in Wales is similar to England, higher than Northern Ireland but lower than Scotland; and
- The estimated values from the income approach are lower than the estimates for the expenditure and output approaches in all nations.
- The value of adult social care GVA is broadly comparable across all the nations of the UK. Scotland has the highest values of GVA per capita in each approach.

Some of the reasons behind the differences in GVA per capita in each nation are:

- In the income approach, earnings are higher in Scotland than the other UK nations. One reason for this is the introduction of the living wage in the adult social care sector in Scotland. Despite the higher earnings, there are a comparable number of FTEs (per capita) in Scotland and the other UK nations.

- In Northern Ireland, the estimated number of jobs and FTEs in the adult social care sector does not cover non-regulated services or PAs, and the earnings from these jobs (and subsequent GVA) are not estimated. This helps to explain why the estimate of GVA per capita using the income approach is lower in Northern Ireland than in the other nations, and why the productivity values for Northern Ireland are much higher than in the income estimate.
- The amount of public spending per capita on adult social care is higher in Scotland than in the other nations. There are also a comparable number of FTEs (per capita) in Scotland and the other UK nations. The higher level of public expenditure and higher average wages in the adult social care sector in Scotland helps to explain why the estimated value of GVA per capita is higher in Scotland.

Table 7.2 Comparison of the value of the adult social care sector across the UK

	England	Northern Ireland	Scotland	Wales	UK
<b>Direct economic value</b>					
Income approach (£'000)	20,277,218	544,333	2,278,427	1,153,549	24,253,526
Expenditure approach (£'000)	20,420,586	605,163	2,558,174	1,202,959	24,786,883
Output approach (£'000)	21,651,931	550,653	2,511,150	1,184,262	25,897,996
<b>Jobs</b>					
Jobs	1,488,000	38,500	147,800	83,400	1,756,100
FTE jobs	1,027,900	28,900	109,600	61,600	1,228,000
<b>Productivity per FTE</b>					
Income approach (£)	19,700	18,800	20,800	18,700	19,700
Expenditure approach (£)	19,900	20,900	23,300	19,500	20,200
Output approach (£)	21,100	19,100	22,900	19,200	21,100
<b>GVA per capita</b>					
Income approach (£)	370	290	420	370	370
Expenditure approach (£)	370	320	470	390	380
Output approach (£)	390	300	460	380	390
<b>GVA per capita 65+</b>					
Income approach (£)	2,050	1,830	2,280	1,820	2,050
Expenditure approach (£)	2,070	2,030	2,560	1,900	2,100
Output approach (£)	2,190	1,850	2,510	1,870	2,190

ICF analysis

# Part A: ANNEXES

## Annex 1 Methodology

This annex presents more details about the assumptions and calculations used to estimate the size, structure and economic value of the adult social care sector in Wales. It aims to provide more technical detail about the methodology used to establish the estimates.

### A1.1 Introduction to the three approaches to measure GVA

The economic value of the sector has been calculated using three different approaches: the input approach; the expenditure approach; and the output approach. This was to increase the robustness of the estimates, as there were strengths and weaknesses with the availability and quality of the data required for each of approach. A brief overview of the methodologies is presented here.

The income approach to measuring GVA attempts to measure the total income generated by the sector. There are two main components of income: the earnings / wages generated by workers in the sector; and additional income generated by the sector. The approaches to measuring these two components of income are:

- **Earnings / wages.** The number of jobs and FTEs in different adult social care services and in different types of provider was estimated. This was then multiplied by the estimated average earnings for a FTE for each type of service / provider. This gave an estimate of the total earnings in the sector.
- **GOS.** The other income generated by the sector has been estimated using the GOS. The GOS is income minus operating costs (for example the income received for providing an hour of domiciliary care minus staff, transport and material costs). It is not the profit in the sector, as it does not include costs such as rent, interest payments, the depreciation of capital goods and exceptional purchases. **Therefore, it is possible for a provider to generate a GOS and still make an economic loss.** The average EDITBAR value for the care home sector (CMA, 2017) and the average value of surplus for the domiciliary care sector in the UK (UKCHA, 2018) have been multiplied by the total value of output for these services to estimate the GOS.
- These two types of income were summed together to estimate the GVA in the adult social care sector.

The expenditure approach to measuring GVA involves estimating the total level of expenditure on adult social care (public and private funding). The level of expenditure is used as a measure of spending in the sector, which is the equivalent of business turnover (value of goods and services sold). This is then converted to GVA on the basis of turnover to GVA ratios provided in the Annual Business Survey (ABS). This represents the removing of intermediate purchases. The expenditure approach for the adult social care sector requires estimates of two types of expenditure:

- Public and co-financing expenditure – the level of expenditure by the state. Data for this was collected from national statistics; and
- Self-funding. This is more difficult to estimate as there is no data available that shows the number of self-funders. The number of self-funders was estimated using findings from a rapid evidence review. The number of self-funders was multiplied by an average cost for self-funders and their demand for services (the number of hours of adult social care they needed) to estimate the total value of self-funded expenditure.
- These two types of expenditure were summed together to estimate the GVA in the adult social care sector. The total expenditure was then converted to GVA by multiplying the expenditure by the turnover to GVA ratios.

The output approach to measuring GVA involves multiplying the number of hours of adult social care that was provided by the average cost of adult social care. This provides an estimate of spending in the sector, which is the equivalent of business turnover (value of goods and services sold). This is then converted to GVA on the basis of turnover to GVA ratios provided in the Annual Business Survey (ABS). This represents the removing of intermediate purchases. The expenditure approach for the adult social care sector involved three main steps estimates:

- Identifying the hours of adult social care provided. For the care homes sector, this was estimated using capacity and average occupancy information for care homes. For the non-residential sector, the number of service users receiving non-residential care was collected and this was multiplied by the average number of hours a service user needs the service.
- The number of hours used of each service is multiplied by the average cost of the service to estimate the total value of the services used (business turnover).
- The total value of output was then converted to GVA by multiplying the expenditure by the turnover to GVA ratios.

## A1.2 The size and structure of the adult social care sector in Wales

### A1.2.1 Number of adult social care sites

The number of sites providing regulated adult social care services in Wales has been taken directly from the CIW database and Annual Report (2016). The database included sites which provided social care which fell outside the adult social care footprint. The services in the database were categorised by service provided, so non-adult social care sites were filtered out. This provided the estimates of the number of provider sites in the regulated adult social sector.

No data was collected on the number of sites providing non-regulated adult social care. Non-regulated activities could include community care, advice and guidance, befriending services, non-personal care, residential care for homeless individuals and women's refuges. To estimate the number of sites providing non-regulated adult social care in Wales, data from the IDBR, CIW and SfC in England was used.

The approach used data from the IDBR, CIW data and SfC in England:

- Data was taken from the IDBR which showed the total number of local sites in the relevant Standard Industrial Classification (SIC) code classes in Wales.
- Information from SfC was used to estimate the proportion of these local sites which were providing adult social care (as the SIC code class includes providers of other caring and charitable services, such as children's services). This was multiplied by the number of local sites in the IDBR for Wales to provide an estimate of the total number of adult social care sites. This was used as an estimated number of adult social care sites in Wales.
- The number of regulated adult social care sites (taken from the CIW) was subtracted from the total number of adult social care sites. This provided an estimate of the number of non-regulated adult social care sites in Wales

This information is summarised in Table A1.1.

Table A1.1 Number of non-regulated local sites

	Residential care (SIC 87)	Non- residential (SIC 88)	Total
IDBR	1,750	2,240	3,980
Proportion assumed to be adult social care	77%	32%	
Estimated number of adult social care sites in IDBR	1,350	710	2,060
Estimated number of regulated adult social care sites in CIW database <sup>11</sup>	1,090	490	1,580
Estimated number of non-regulated adult social care sites	260	220	480

Source: IDBR; CIW regulated services database; SfC data; ICF calculations; Numbers rounded to the nearest 10

### A1.2.2 The size and structure of the adult social care workforce

The number of public sector workers in the adult social care sector in Wales is collected by the Welsh Government, and is publicly available. This data differentiates staff by the type of service they provide. The data also provides the number of FTE staff in each type of service. These were used directly in the analysis of the size of the adult social care workforce.

The Welsh Government data also included estimates of the number of staff working in children's social care, and the number of management / administration / support staff. Some of these ancillary staff work in the adult social care sector. It is essential to capture these staff, as the research aims to describe the adult social care sector, not just individuals providing adult social care.

The management / administration / support staff in the public sector adult social care sector was calculated by estimating the proportion of total social care time that was for adult social care (65%), and multiplying this by the total number of ancillary staff.

The number of staff working in the independent sector was provided by Social Care Wales, using information from Data Cymru (SCWDP workforce data collection report, 2015-16). This provided the total number of staff working in the sector, but not the number of FTE jobs. The data from the report was used to estimate the number of voluntary sector and private sector jobs. The data shows the number of services disaggregated by voluntary / private sector providers, and this ratio has been applied to the number of jobs to estimate the voluntary / private sector workforce.

To estimate the number of FTEs in the private and voluntary sectors, the proportion of staff who worked full-time and part-time in the independent regulated sector in Wales was taken from the SCWDP workforce data collection report (52% worked full-time). Full-time workers were assumed to work 37 hours per week; part-time workers were assumed to work 18.5 hours per week. This gave an estimate of an average of 28 hours worked per week, or 0.76 FTE jobs per job.

The above describes the workforce in regulated adult social care activities and the public sector in Wales. The non-regulated workforce (those not subject to CIW inspections) has been estimated using the number of non-regulated sites (see Table A1.1). The number of jobs per non-regulated site in England (based on SfC data) has been multiplied by the number of non-regulated sites in Wales (see Table A1.2). The distribution of jobs across

<sup>11</sup> Excluding services relating to the care of children.

different types of adult social care provision is based on the distribution of non-regulated jobs in England, calculated using SfC data (see Table A1.3).

**Table A1.2** Estimated number of non-regulated employees

	Residential care	Non-residential	Total
Estimated number of non-regulated adult social care sites	260	220	480
Estimated number of jobs per site	16.5	14.9	
Estimated number of non-regulated jobs	4,300	3,300	7,500

Source: IDBR; CIW, (2016) Chief Inspectors Annual Report, 2015-16; CIW regulated services database; SfC data; ICF calculations; Numbers rounded to the nearest 10.

**Table A1.3** Estimated distribution of non-regulated sites and jobs

Sub-sector	Number of sites	Number of jobs	%
Residential	260	4,300	100% (of residential)
Domiciliary	40	600	18% of social work
Day care	60	900	27% of social work
Other	120	1,900	55% of social work
Total	480	7,700	

Source: IDBR; CIW, (2016) Chief Inspectors Annual Report, 2015-16; CIW regulated services database; SfC data; ICF calculations; Number of sites rounded to the nearest 10; Number of jobs rounded to the nearest 100. Totals may not equal the sum of services due to rounding.

## A1.3 The income approach to economic value

### A1.3.1 Earnings

The earnings information provided in ASHE, according to adult social care experts, overestimated the earnings in the sector in all UK nations.<sup>12</sup> No other information is collected in Wales which presents earnings in the adult social care sector. Therefore, the value of earnings in Wales was estimated using SfC estimates of earnings in England and information from ASHE showing the relative value of earnings in Wales and England.<sup>13</sup>

The value of hourly earnings<sup>14</sup> in the adult social care sector in Wales was divided by the average hourly earnings in the sector in England to establish the ratio of earnings between the two countries. The ratio was then multiplied by the values collected by SfC.

Table A1.4 shows the estimated earnings in Wales in 2016 by sector. The earnings are separated by type of service and type of provider (public and private / voluntary sectors).

<sup>12</sup> ASHE estimates do not include self-employed workers, or jobs in businesses which are not required to be PAYE registered (most likely small firms with low levels of pay). Therefore the ASHE estimates exclude many low paying jobs, which can lead to an overestimation of earnings.

<sup>13</sup> Data was collected from both ASHE and the LFS on earnings in the adult social care sector, based on appropriate SIC codes. The ratios between earnings in each nation was similar in both ASHE and the LFS. ASHE data was selected as the values are based on a larger sample.

<sup>14</sup> Hourly earnings were selected as the number of responses for hourly earnings was larger and it does not include any other potential differences in hours worked or employee benefits.

These values have been used to estimate the total value of earnings by multiplying the earnings by the number of FTE jobs in the adult social care sector.

Table A1.4 Estimated earnings in Wales 2016

Sector	Earnings in England (FTE)	ASHE ratio	Earnings in Wales
<b>Public sector</b>			
Residential care	£19,500	99%	£19,400
Nursing care	£18,900	99%	£18,800
Domiciliary care	£20,400	89%	£18,100
Day care	£20,700	89%	£18,300
Other	£29,600	89%	£26,300
<b>Private / voluntary sector</b>			
Residential care	£15,900	99%	£15,800
Nursing care	£16,900	99%	£16,800
Domiciliary care	£16,200	89%	£14,400
Day care	£18,100	89%	£16,100
Other	£19,000	89%	£16,900
Personal Assistants	£19,500	89%	£15,600

Source: SfC data; ASHE; ICF calculations; Values rounded to the nearest 100. Individual row totals may be not sum due to rounding.

### A1.3.2 Gross Operating Surplus

GOS is defined as income minus operating costs (for example the income received for providing an hour of domiciliary care minus staff, transport and material costs). In estimating GOS, it is assumed that only private sector care providers are run 'for profit', and therefore generate a GOS.

**It is important to note that the GOS does not equal the profit taken by owners and shareholders.** Only a subset of total costs are included in the GOS calculation. Long term costs such as the use of fixed capital (depreciation and amortisation), exceptional purchases, the payment of interest and taxation and rents are not removed. It is the equivalent of earnings before interest, taxes, depreciation, amortization and restructuring or rent costs (EBITDAR).<sup>15</sup>

The Competition and Markets Authority (CMA, 2017) provides a more detailed assessment of GOS in the residential care sector. This examined the annual accounts of all residential care operators in the UK that are required to file their accounts at Companies House. This found that in 2015/16 (the most recent year that comprehensive information was available), the GOS in the sector was around 16%. The 16% has been used in the analysis. It should be noted that this is a simplifying assumption for the calculation, rather than conducting primary research (examining all adult social care providers annual accounts) to estimate the level of GOS. 16% has been multiplied by the output of the residential and nursing care sectors.

The GOS for domiciliary care providers has been estimated using information taken from the United Kingdom Homecare Association (UKHCA, 2017). This research provided information

<sup>15</sup> The EBITDAR value has been used in the analysis as it is the preferred measure in both the LaingBuisson report and the CMA market analysis. The EBITDA measure, where rents and restructuring costs are assumed to be operating costs is used in the sensitivity analysis in Annex 2

which was used to estimate an equivalent of the EBITDAR value to represent GOS. It was estimated that the GOS margin in the home care market was 11.3% for private domiciliary providers and 8.3% for voluntary providers. The estimation of GOS included the following cost indicators to calculate the GOS (attempting to be the equivalent of EBITDAR):

- Care worker costs;
- Staffing, recruitment and training;
- Consumables; and
- Professional costs.

The cost indicators which were excluded from the estimation of the GOS in the domiciliary care were:

- Net profit / surplus (3%) – included for the estimation of GOS in the private sector, but assumed to be zero in the estimation of GOS in the voluntary sector;
- Premises, utilities and services (5.8%); and
- Other business overheads (3%)..

There is no information available for the value of GOS for day care and other services. Therefore, no attempt has been made to estimate the GOS in these services. Finally, it has been assumed that there is no GOS in the employment of PAs – it is assumed that they are directly employed and there is no additional income above their pay.

### A1.3.3 Direct employers

The estimation of the number of direct employers and the number of PAs they employ is based on Welsh Government data and SfC research. The Welsh Government provide publicly available statistics which show the number of individuals receiving direct payments. SfC estimate that just under one third of individuals receiving direct payments employ their own staff (29%). Each individual employing staff employs an average 2.1 workers.

On average, each PA works 17 hours per week (0.46 FTEs). A PA in England has estimated earnings of £17,500 (FTE). The calculation as described in section A1.3.1 has been used to estimate the earnings in Wales (multiplying the English earnings by 89%), which were £15,600.

The number of FTEs is multiplied by the average earnings per FTE to estimate the value of direct employment in Wales.

## A1.4 The expenditure approach to economic value

Data which presents the value of public sector spending and co-funding in the adult social care sector is published by the Welsh Government. The data is disaggregated by type of user and type of service.

However, this data does not cover the expenditure by self-funders. There is no data which provides statistics on the number of self-funders or the value of their expenditure. Therefore, information was taken from existing literature to estimate the number and value of self-funding in Wales.

LaingBuisson (2017) estimate the proportion of individuals in residential care who are self-funders. In Wales, 31% of residents are estimated to be self-funders. The report also produces estimates of the total capacity of the sector and occupancy rates. Using these figures, it was possible to estimate the number of self-funders (see Table A1.5).

The Welsh Government produce statistics which show the number of people receiving funding for domiciliary care, day cases and other social care services. However, again there are no statistics available to show the number of individuals who fund their own care. An

evidence review was conducted to find evidence of the number of people who fund their own non-residential social care. This found a wide range of estimates, including:

- 20% of individuals receiving homecare in the UK fund their own homecare;<sup>16</sup>
- 21% of individuals receiving homecare;<sup>17</sup>
- Between 20% and 25% of individuals receiving homecare, based on studies between 2004 and 2011;<sup>18</sup>
- 30% of individuals receiving homecare in England;<sup>19</sup> and
- 35% of expenditure on home care in England.<sup>20</sup>

These were used to help to estimate the number of individuals who self-fund their care. In the analysis in the main report, it has been assumed that 21% of individuals self-fund their domiciliary and day care in Wales. This is based on the analysis that 30% of individuals in England self-fund their non-residential care – however, in England 43% of individuals self-fund their residential care (compared to 31% in Wales). Adjusting the 30% figure in line with this leads to an estimate that 21% of individuals in Wales self-fund their non-residential care.

For other services, it is not possible to disentangle the number of individuals who pay for their own care, due to the diverse nature of services and prices for services. Therefore, it has been assumed that 21% of the total output for other services in Wales is self-funded.

**Table A1.5** Estimates of the number of self-funders, Wales

Type of provision	Total number of individuals receiving support	Proportion of individuals who are self-funders	Number of self-funders
Residential care	7,100	31%	2,200
Residential care with nursing	11,100	51%	3,500
Domiciliary care	29,400	22%	6,400
Day cases	10,100	22%	2,200

*Source: LaingBuisson (2017) Care of Older People; Welsh Government; ICF calculations; Values rounded to the nearest 10. Individual row totals may be not sum due to rounding*

The usage of services by self-funders is assumed to be the same as the usage of services by funded individuals. This means that:

- Residential care users require 52 weeks of care per year;
- Domiciliary care users require five hours of care per week (260 hours per year); and
- Day care users require 2.5 sessions of day care per week (130 sessions per year).

The unit cost for self-funders is assumed to be higher than for those for funded individuals. Previous research estimated that this mark-up was 20%, but the more recent studies by the CMA (2017) and LaingBuisson (2017) estimates that the mark-up is over 40%. The 46% estimated mark-up in LaingBuisson (2017) has been used to estimate the unit cost for self-funders in residential care. A 20% mark-up has been used for domiciliary care. These mark-ups have been added to the value of funded care. The estimated unit costs of social care for self-funders in Wales is presented in Table A1.6.

<sup>16</sup> HM Government (2012) Caring for our future: reforming care and support; Institute of Public Care, Oxford  
Brookes (2015) Understanding the self-funding market in social care A toolkit for commissioners

<sup>17</sup> UK Care Homes Association (2016) An overview of the Domiciliary Care Market in the UK

<sup>18</sup> National Institute for Health research (2014) People who fund their own social care

<sup>19</sup> Personal Social Services Research Unit (2015) Projections of Demand for and Costs of Social Care for Older People and Younger Adults, 2015 to 2035

<sup>20</sup> LaingBuisson (2017) Care of Older People

The number of self-funders was multiplied by the unit cost of care for self-funders and the volume of care they require. This gives the total value of the self-funded market in Wales. This was then added to the value of public and co-funded expenditure to estimate the total expenditure in the adult social care sector.

**Table A1.6** Unit costs for care in Wales

	Unit cost for funded individuals	Unit cost for self-funders
Residential care	£490 / week	£710 / week
Residential care with nursing	£580 / week	£810 / week
Domiciliary care	£22 / hour	£26 / hour
Day cases	£65 / session	£78 / session

*PSSRU, Unit Cost of Health and Social Care, 2016; LaingBuisson; ICF calculations; Cost of residential care rounded to the nearest £10.*

## A1.5 The output approach economic value

The output approach to estimating the economic value of adult social care multiplies the quantity of services used by individuals in Wales by the unit cost of each type of provision.

The number of individuals using each type of service is presented in Table 5.1, Table 5.2 and Table 5.3 in the main report. This includes individuals who receive funding for their care and individuals who self-fund their care. The unit costs used in the calculations are taken from the PSSRU (2016) report. The cost of adult social care in Wales (taken from LaingBuisson, 2017) was divided by the costs in England, to establish the ratio of earnings between the two countries. The ratio was then multiplied by the unit costs from the PSSRU research to estimate the costs in Wales.

## A1.6 Indirect and induced effects

In order to attribute output / expenditure to public sector providers, workforce and care home capacity data was used. The UK I-O tables produce estimates of Type I multiplier effects, and provide data which allows the Type II multipliers and induced effects to be calculated. The method used is described below:

- The Blue Book suggests a marginal propensity to consume of 70.5% (estimated as household consumption as a percentage of total income), which has been used in these calculations.
- The marginal propensity to consume was applied to the total direct and indirect income/GVA for the care sector from the UK I-O tables, to estimate the spending of wages of those directly and indirectly employed by the care sector.
- The UK I-O tables include household consumption by sector and this was used to disaggregate the re-spent wages by sector.
- Metrics were calculated to estimate the GVA and employment supported by this household expenditure in each of the 127 sectors included in the UK I-O tables. This used data from the ABS, which enables metrics to be produced for sectors at a disaggregated level. These can then be mapped onto the UK I-O tables.
- The final step was to sum the GVA and employment supported in each sector from the household spending of wages received, and this was then used to produce estimates of induced multipliers for the spending of wages earned in the care sector.

In order to estimate the indirect and induced effect disaggregated by sector, the output / expenditure generated by public, private and voluntary sector providers needed to be calculated. This has been done using information about the output of public, private and voluntary sector providers in the residential and nursing care sectors, and the percentage of total employment which is public / private / voluntary sector from the workforce data.

## Annex 2 Sensitivity analysis

This annex provides a sensitivity analysis of the estimates of the size, structure and economic value of the adult social care sector in Wales. Some of the calculations used to estimate the size, structure and economic value of the sector involve assumptions and data manipulation. In the sensitivity analysis, some of these assumptions are varied, to show how sensitive the overall results are to these assumptions. The sensitivity analysis presents a range of values (a high and a low estimate) of the value of the adult social care sector in Wales.

The sections below show the assumptions which have been varied, and the values used in the calculations. Other than these changes, the calculations undertaken are exactly as set out in the main report and Annex 1. The final results of the sensitivity analysis (Employment, expenditure / output and GVA) are presented, but the intermediary tables (included in the main report) are not recreated.

### A2.1 The size and structure of the adult social care sector in Wales

The assumptions around the number of unregulated sites providing adult social care and the number of jobs at each unregulated site has been varied in the sensitivity analysis. The varied assumptions are presented in Table A2.1.

The results of the varied assumptions are presented in Table A2.2. This shows that despite varying the assumptions, the estimated number of sites providing adult social care does not alter significantly. This is because the majority of sites providing adult social care are regulated.

The number of FTE jobs in the sector also varies. Again, the difference in total employment is negligible (a difference of 2,400 between the highest and lowest estimate, or 4% of the low estimate). Again, this is because the large majority of the workforce is in the regulated sector.

Table A2.1 Assumptions varied in the sensitivity analysis of the size and structure of the adult social care sector

	Low	Central	High	Calculation
Number of unregulated sites providing adult social care	460	480	530	+/- 5%, to reflect uncertainty
Number of jobs per unregulated site – residential care	14.9	16.5	18.2	+/- 5%, to reflect uncertainty
Number of jobs per unregulated site – social work	13.4	14.9	16.4	+/- 5%, to reflect uncertainty

Table A2.2 Results of the sensitivity analysis of the size and structure of the adult social care sector in Wales

	Low	Central	High
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	Low	Central	High
<b>Sites</b>			
Residential care	510	530	540
Nursing care	820	820	820
Domiciliary care	520	520	520
Day care	60	60	60
Other services	120	130	130
Total sites	2,030	2,060	2,080
<b>Jobs (FTE)</b>			
Residential care	17,900	18,300	18,800
Nursing care	5,500	5,500	5,500
Domiciliary care	17,100	17,200	17,200
Day care	6,800	6,900	7,000
Other services	11,800	12,100	12,200
Total	59,100	60,000	60,800

## A2.2 The income approach to economic value

Table A2.3 presents the assumptions which have been varied for the income approach estimates. These include the number of jobs in the sector, the average estimated earnings and the level of profit generated by the sector. These have been varied as they all include assumptions and calculations, rather than being taken directly from data sources.

Table A2.3 Assumptions varied in the sensitivity analysis of the income approach

	Low	Central	High	Calculation	National Living Wage
Number of jobs	See Table A2.2				
<b>Average earnings – public sector</b>				+/- 5% to reflect uncertainty	
Residential care (£)	18,500	19,400	20,400		20,400
Nursing care (£)	17,900	18,800	19,700		19,700
Domiciliary care (£)	17,200	18,100	19,000		19,000
Day care (£)	17,400	18,300	19,300		19,300
Other services (£)	25,000	26,300	27,600		27,600
<b>Average earnings – independent sector</b>					
Residential care (£)	15,000	15,800	16,600		17,700
Nursing care (£)	15,900	16,800	17,600		17,700
Domiciliary care (£)	14,400	14,400	15,100		17,700
Day care (£)	15,300	16,100	16,900		17,700
Other services (£)	16,000	16,900	17,700		17,700
Personal Assistants	14,800	15,400	16,400		17,700
GOS – residential care	7.5%	16%	19.5%	EBITDA; EBITDAR (CMA; EBITDAR LB)	16%
GOS – private	8.3%	11.3%	15.3%	UKHCA report	11.3%

	Low	Central	High	Calculation	National Living Wage
domiciliary care					
GOS – voluntary domiciliary care	6.3%	8.3%	10.3%	UKHCA report	8.3%

The results of the sensitivity analysis are presented in Table A2.4. This shows that when the assumptions for the calculations are varied, the total value of GVA generated in the adult social care sector varies by £222 million. This represents 21% of the low estimate of the adult social care sector. The largest differences are seen in the residential and nursing care sectors, as more elements of GVA have been altered (earnings, jobs and GOS).

Table A2.4 Results of the sensitivity analysis of the income approach

GVA estimate	Low (£'000)	Central (£'000)	High (£'000)	National Living Wage (£'000)
Residential care	289,534	328,012	359,587	360,636
Nursing care	113,861	150,317	170,788	155,308
Domiciliary care	275,350	292,266	321,522	341,434
Day care	107,330	114,643	122,084	124,298
Other services	226,082	242,761	257,141	254,457
Direct payments	24,272	25,549	26,827	28,979
<b>Total</b>	<b>1,036,429</b>	<b>1,153,549</b>	<b>1,257,950</b>	<b>1,265,112</b>

Individual row totals may be not sum due to rounding. Totals may not equal the sum of services due to rounding.

## A2.3 The expenditure approach to economic value

The assumptions which have been varied for the sensitivity analysis of the expenditure approach to measuring the value of the sector are presented in Table A2.5. Where data was taken directly from official statistics and did not require further estimation or manipulation, no sensitivity analysis has been undertaken. Therefore, the only areas where sensitivity analysis has been conducted is for self-funders – the proportion of service users who self-fund, and the unit cost for self-funded care.

Table A2.5 Assumptions varied in the sensitivity analysis of the expenditure approach

	Low	Central	High	Calculation
Proportion of individuals who are self-funders				+/- 5% to reflect uncertainty;
Residential care	29.8%	31.4%	33.0%	
Nursing care	29.8%	31.4%	33.0%	
Domiciliary care	17.2%	21.7%	24.3%	
Day care	17.2%	21.7%	24.3%	
Proportion of 'other services' which are self-funded	17.2%	21.7%	24.3%	Assumed 25% of non-residential care services in England are self-funders (low); 32% are self-funders (high). This is then adjusted to Welsh self-funders using the ratio of England to Wales self-funders in residential care.

	Low	Central	High	Calculation
Unit cost of self-funded care				+/- 5% to reflect uncertainty
Residential care	£640 / week	£710 / week	£780 / week	
Nursing care	£730 / week	£810 / week	£900 / week	
Domiciliary care	£23 / hour	£26 / hour	£28 / hour	
Day care	£70 / session	£78 / session	£86 / session	

The results from the sensitivity analysis are presented in Table A2.6. This shows a range in the estimates of £101 million due to the changes in the assumptions. This represents 9% of the low estimate of total GVA of the adult social care sector.

Table A2.6 Results of the sensitivity analysis of the expenditure approach

GVA estimate	Low (£'000)	Central (£'000)	High (£'000)
Residential care	492,880	502,078	511,943
Nursing care	193,146	210,656	229,772
Domiciliary care	163,809	179,771	190,747
Day care	65,343	68,841	71,896
Other services	192,926	200,342	204,613
Direct payments	41,272	41,272	41,272
<b>Total</b>	<b>1,149,376</b>	<b>1,202,959</b>	<b>1,250,243</b>

Individual row totals may be not sum due to rounding. Totals may not equal the sum of services due to rounding.

## A2.4 The output approach economic value

As with the sensitivity analysis for the expenditure approach, the only values that have been altered are those which required estimation and data manipulation. For the output approach, this meant the unit cost of adult social care and the number of care users. The values used in the sensitivity analysis are presented in Table A2.7.

Table A2.7 Assumptions varied in the sensitivity analysis of the output approach

	Low	Central	High	Calculation
Unit cost of adult social care				+/- 5% to reflect uncertainty
Residential care – public provision	£920 / week	£970 / week	£1,020 / week	

	Low	Central	High	Calculation
Residential care – private provision	£540 / week	£570 / week	£600 / week	
Nursing care	£650 / week	£680 / week	£710 / week	
Domiciliary care	£22 / hour	£23 / hour	£24 / hour	
Day care	£63 / session	£67 / session	£72 / session	
Residential care for younger adults	£940 / week	£990 / week	£1,040 / week	
Direct payment recipients	£14 / hour	£15 / hour	£16 / hour	
Number of self-funded care users	See Table A2.5			

The results of the sensitivity analysis are presented in Table A2.8. This shows that by varying the assumptions for the unit cost of care and the number of individuals who self-fund their care, the results for the value of adult social care varies from £1.1 billion to £1.3 billion. This represents a £108 million difference between the high and low estimates, or 10% of the low value of the sector.

Table A2.8 Results of the sensitivity analysis of the output approach

GVA estimate	Low (£'000)	Central (£'000)	High (£'000)
Residential care	365,166	386,037	404,932,692
Nursing care	340,592	357,304	354,039,302
Domiciliary care	170,441	186,402	202,846,689
Day care	38,160	43,226	47,702,212
Other services	192,926	200,342	204,613,273
Direct payments	10,221	10,951	11,681,427
<b>Total</b>	<b>1,117,506</b>	<b>1,184,262</b>	<b>1,225,816</b>

Individual row totals may be not sum due to rounding. Totals may not equal the sum of services due to rounding.

## Annex 3 Bibliography

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