



The Economic Value of the Adult Social Care sector - England

Final report

05 June 2018

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Contents

- Abbreviationsv
- Executive summary vii
- Sector characteristics viii
- Direct economic value of the adult social care sector viii
- Indirect and induced economic value of the adult social care sector.....x
- Key indicators..... xi
- 1 Introduction..... 1**
 - 1.1 Research aims..... 1
 - 1.2 Purpose of this report..... 1
 - 1.3 Structure of this report 2
- 2 Sector characteristics..... 3**
 - 2.1 Number of service providers 3
 - 2.2 Number of jobs 5
 - 2.3 Summary 8
- 3 Income approach10**
 - 3.1 Earnings - regulated sector10
 - 3.2 Earnings - non-regulated sector11
 - 3.3 Gross Operating Surplus12
 - 3.4 Direct employers14
 - 3.5 Estimated GVA14
- 4 Expenditure approach.....16**
 - 4.1 Public sector funding and co-funding16
 - 4.2 Self-funding17
 - 4.3 Estimated GVA18
- 5 Output approach20**
 - 5.1 Output from the residential care sector20
 - 5.2 Output from non-residential adult social care sector22
 - 5.3 Estimated GVA22
- 6 Indirect and induced effect24**
 - 6.1 Introduction.....24
 - 6.2 Indirect Effects24
 - 6.3 Induced Effects26
 - 6.4 The total economic contribution of adult social care sector in England.....28
- 7 Conclusion.....30**
 - 7.1 Summary of findings30
 - 7.2 Benchmarking.....31
 - 7.3 National comparisons33
- Part A: ANNEXES35**
 - Annex 1 Methodology36
 - Annex 2 Sensitivity analysis.....42
 - Annex 3 Bibliography46

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
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
GVA	Gross Value Added
GOS	Gross Operating Surplus
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
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
Independent	Private and voluntary sector providers of adult social care

Key term	Definition
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	Service providers in the adult social care sector run by for not-for-profit organisations

Executive summary

Key Findings

Sector characteristics

- An estimated 40,420 sites were involved in providing adult social care in England in 2016. Most of these sites provided residential care. A further 68,200 individuals receive direct payments and employ Personal Assistants (PAs);
- There were an estimated 1.3 million jobs in the adult social care sector in England in 2016. Most of these jobs were involved in providing domiciliary care. There were a further 143,100 jobs due to individuals employing PAs, meaning there were a total of 1.5 million jobs in the adult social care sector in 2016;
- There were an estimated 962,200 Full-Time Equivalents (FTEs) in the adult social care sector in England, and a further 65,800 FTEs employed as PAs;
- Most of the adult social care workforce providing regulated services were employed at sites run by private sector providers (721,100);
- The level of employment in the adult social care sector represents 6% of total employment in England; and
- The average earnings in the adult social care sector in England was estimated to be £17,300.

Economic value of the sector (using the income approach)

- It was estimated that in 2016, adult social care sector GVA was £20.3 billion. Most of this was estimated to be in domiciliary care (£5.3 billion, 29%);
- This represents 1.4% of total GVA in England;
- It was estimated that the average level of productivity (GVA generated per FTE) in the adult social care sector was £19,700;
- The estimated GVA in the adult social care sector in England is estimated to be higher than the Agriculture, forestry & fishing and Water supply; sewerage & 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 510,000 jobs (357,400 FTEs) and £8.9 billion of GVA to the English 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 213,000 jobs (147,500 FTEs) and £9.3 billion of GVA to the English economy; and
- The total direct, indirect and induced value of the adult social care sector in England was estimated to be 2.2 million jobs (1.5 FTEs) and £38.5 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 England. 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 40,000 sites provide adult social care services, and most of these (78%) are run by private service providers. The largest number of sites (15,830) provide residential care. Additionally, over 68,000 people receive direct payments and directly employ their own staff (Personal Assistants, PAs). The total number of sites providing adult social care in England is summarised in Table ES1.1.

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

Type of service	Number of sites where services are provided
Residential care	15,830
Nursing care	4,440
Domiciliary care	10,430
Day care	2,550
Other services	7,180
Direct employers	68,200
Total – excluding direct employers	40,420
Total – including direct employers	108,570

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

There are estimated to be over 1.3 million jobs (over 900,000 Full Time Equivalents, FTEs) in the adult social care sector in England. Most these are in the private sector (60%). When directly employed PAs are included, there are nearly 1.5 million jobs (over 1 million FTEs). Most jobs are in the domiciliary care sector. The total number of jobs and FTE by type of provision is presented in Table ES1.2.

Table ES1.2 Estimated total number of jobs and FTEs in the adult social care sector in England - 2016

Type of service	Jobs	FTEs
Residential care	376,500	288,000
Nursing care	292,300	226,600
Domiciliary care	522,800	326,200
Day care	36,500	27,400
Other services	116,700	94,000
Direct employers	143,100	65,800
Total – excluding direct employers	1,344,900	962,200
Total – including direct employers	1,488,000	1,027,900

All numbers rounded to nearest 10. 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 (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.

Table ES1.3 presents the results using the income approach. In England in 2016, it was estimated that adult social care GVA was £20.3 billion using this approach. The largest proportion of GVA was estimated to be in the domiciliary care sector (31% of the total value of the sector).

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

	Earnings (£'000)	GOS (£'000)	GVA (£'000)
Residential care	4,608,613	671,225	5,279,838
Nursing care	3,824,133	1,042,889	4,867,022
Domiciliary care	5,386,085	806,567	6,192,652
Day care	458,626	-	458,626
Other services	2,327,805	-	2,327,805
Personal Assistants	1,151,274	-	1,151,274
Total	17,756,536	2,520,681	20,277,218

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 England (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 England in 2016, it was estimated that adult social care GVA was £20.4 billion using this approach. The largest proportion of GVA is estimated to be in the residential care sectors (35% of the total value of the sector).

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

	Total expenditure (£'000)	Turnover to GVA ratio	GVA (£'000)
Residential care	9,775,781	73%	7,179,894
Nursing care	6,009,875	76%	4,568,435
Domiciliary care	5,504,568	51%	2,828,532
Day care	-	-	-
Other services	7,241,510	66%	4,790,216
Personal Assistants	1,592,620	66%	1,053,509
Total	30,261,225		20,420,586

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 England in 2016, it is estimated that adult social care GVA was £21.7 billion using this approach. The largest proportion of GVA is estimated to be in the residential and nursing care sectors (28% of the total value of the sector in nursing care and 27% in residential care).

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

	Total output (£'000)	Turnover to GVA ratio	GVA (£'000)
Residential care	8,096,601	73%	5,946,608
Nursing care	7,970,684	76%	6,058,953
Domiciliary care	8,546,823	51%	4,391,801
Day care ¹	-	-	-
Other services	7,241,510	66%	4,790,216
Direct payments	903,669	51%	464,352
Total	31,855,619		21,651,931

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 510,000 jobs² and between £8.9 billion and £10.0 billion of GVA in England.

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 159,000 jobs and £9.3 billion to £10.1 billion of GVA in the wider economy. These are similar in size to the indirect GVA effect, but smaller than the indirect employment effect.

¹ NHS Digital: Personal Social Services: Expenditure and Unit Cost does not provide spending data for day care, therefore day care is left blank. Spending on day care is included in other services.

² 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 were nearly 1.5 million jobs in the adult social care sector, and there were over one million FTEs. These jobs generated around £20.3 billion to £21.7 billion in GVA, and the level of productivity (GVA per worker) was estimated to be between £19,700 and £21,100 per FTE.
- The indirect effect of the adult social care sector was estimated to be over 510,000 jobs (or 357,000 FTEs) and between £8.9 billion and £10.0 billion 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 the nearly 213,000 jobs (147,500 FTEs) and between £9.3 billion and £10.1 billion of GVA.

The total direct, indirect and induced value of the adult social care sector in England was estimated to be over 2.2 million jobs, over 1.5 million FTEs and between £38.5 billion and £41.7 billion in GVA.

Table ES1.6 Summary of findings

	Income approach	Expenditure approach	Output approach
Total direct employment		1,488,000	
Total FTE employment		1,027,900	
Total direct GVA (£'000)	20,277,218	20,490,586	21,651,931
Estimated productivity per job (£)	13,600	13,700	14,600
Estimated productivity per FTE (£)	19,700	19,900	21,100
Indirect employment (jobs)		510,300	
Indirect employment (FTE)		357,400	
Induced employment (jobs)		212,800	
Induced employment (FTE)		147,500	
Total jobs due to adult social care activity		2,211,100	
Total FTE jobs due to adult social care activity		1,532,900	
Indirect GVA (£'000)	8,925,694	9,493,196	9,975,601
Induced GVA (£'000)	9,279,940	9,505,837	10,050,422
Total GVA due to adult social care activity (£'000)	38,482,852	39,419,619	41,677,954

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 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 alter the views of individuals 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 current economic value of the adult social care sector 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 current economic value of the adult social care sector in England. 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 England was informed by consultations with the project steering group in England 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 conclusion 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; and
- 0 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 for the adult social care sector in England. These characteristics describe the size and structure of the sector in England.

2.1 Number of service providers

SfC collect detailed statistics for the adult social care sector in England. The data is collected for the National Minimum Dataset – Social Care (NMDS-SC). This includes provider and workforce information. Data from the NMDS-SC covers regulated and non-regulated adult social care. It is a robust dataset as it holds administrative data for over half of the workforce in the adult social care sector. Therefore, data from the NMDS-SC provides all the data for the description of the size and structure of the adult social care sector.

2.1.1 Regulated service providers

The Care Quality Commission (CQC) collect data on all regulated adult social care providers in England and the sites where providers operate. The services provided at regulated sites is categorised, which means that the number of sites providing regulated adult social care services can be differentiated by broad service type.

The CQC data also allows the identification of the number of service providers providing care. However, because service providers provide multiple services, it is not possible to disaggregate service providers by type of service. Therefore, the total number of service providers providing care is presented by each type of provider.

The CQC data provided to SfC does not include information to distinguish between voluntary and private sector providers. SfC have undertaken further analysis to estimate the number of voluntary sector and private sector provider sites.

The number of service providers and sites providing services are presented in Table 2.1 (this provides 100% coverage of regulated services in England). In summary, there were over 13,000 service providers providing regulated adult social care in England in 2016, with care being provided from over 25,000 sites. Most regulated sites were providing residential care (48%). The largest number of sites are run by private sector service providers (19,670, 78% of regulated providers).

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	-	570
	Nursing care	-	20
	Domiciliary care	-	380
	Day care	-	
	Other services	-	
	Total		140
Private	Residential care	-	9,320
	Nursing care	-	3,580
	Domiciliary care	-	6,770
	Day care	-	-
	Other services	-	-
	Total		10,620
Voluntary	Residential care	-	2,190
	Nursing care	-	840
	Domiciliary care	-	1,590
	Day care	-	-
	Other services	-	-
	Total		2,490
Total	Residential care	-	12,070
	Nursing care	-	4,440
	Domiciliary care	-	8,740
	Day care	-	
	Other services	-	
	Total		13,120

Source: Skills for Care, National Minimum Dataset – Social Care; Numbers rounded to the nearest 10. Totals may not equal the sum of services due to rounding.

2.1.2 Non-regulated service providers

The NMDS-SC also contains data on non-regulated adult social care providers. Non-regulated services are those which are not inspected by CQC, and include the provision of community care and non-personal care. The data is SfC estimates of the sector, based on their own analysis of IDBR data.³

The SfC estimates show that there are over 15,000 locations providing non-regulated services in England. These are estimated to mainly (75%) provide non-residential care services (see Table 2.2).

³ The data stored in the IDBR is collected for businesses that are Pay As You Earn (PAYE) and/or with returns above the tax threshold. Therefore, the information stored in the NMDS-SC will exclude some sole traders/small businesses.

Table 2.2 Number of service providers and sites – non-regulated services, 2016

Type of provider	Type of service	Number of service providers	Number of sites providing services
Total	Residential care		3,760
	Nursing care		-
	Domiciliary care		1,690
	Day care		2,550
	Other services ⁴		7,180
	Total		15,170

Source: Skills for Care, National Minimum Dataset – Social Care; Numbers rounded to the 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 NHS Digital. In 2015/16, 235,000 individuals received direct payments for their care in England. 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 employ Personal Assistants (PAs) to provide care. Of those employing PAs, some will employ social care workers from an existing service provider. These agencies will be captured in the NMDS-SC data. However, some direct payment recipients will choose to directly employ PAs. These individuals act as employers, but will be excluded from the NMDS-SC data.

It is estimated that just under a third of direct payment recipients directly employ PAs (29%). In England, this would mean that there are over 68,000 individuals directly employing PAs (see Table 2.3).

Table 2.3 Number of individual employers, 2016

Type of service	
Number of individuals receiving direct payments	235,000
Percentage who directly employ PAs	29%
Estimated number of individuals who directly employ PAs in England	68,200

Source: NHS Digital; Skills for Care 'Individual employers and Personal Assistants'; Numbers rounded to the nearest 100

2.2 Number of jobs

The NMDS-SC provides information about the number of jobs, hours worked and earnings of workers in the adult social care sector. This information allows the number of FTEs to be calculated. The data from the NMDS-SC has been used to estimate the size and structure of the workforce in the adult social care sector in England. The number of jobs relates to all job roles in the adult social care – those

⁴ "Other services" includes community care and all local authority non-residential care activity

providing care to service users and all support staff (for example cleaners, security staff).

2.2.1 Regulated services

There are estimated to be nearly 1.2 million CQC-regulated jobs in the adult social care sector in England in 2016. This is presented in Table 2.4. The data is differentiated between public, private and voluntary provider jobs, and by the type of service provided (residential, nursing care and domiciliary care). Table 2.4 shows that:

- Most CQC-regulated jobs in the adult social care sector are in the independent sector (96%), with most of these being with private providers (65% of all jobs).
- There are more jobs in residential and nursing care than in domiciliary care (55%).
- On average, individuals work for 26 hours a week.
- There are an estimated 781,800 FTEs – again most are in the private sector.

Table 2.4 Number of jobs - regulated services, 2016

Type of provider	Type of service	Jobs	Average hours	FTEs
Public	Residential care	14,100	26.6	10,100
	Nursing care	2,400	26.8	1,800
	Domiciliary care	20,200	26.5	14,400
	Day care ⁵	-	-	-
	Other services ⁵	-	-	-
	Total		36,700	-
Private	Residential care	201,400	28.3	154,300
	Nursing care	194,200	28.7	150,600
	Domiciliary care	325,500	22.9	201,200
	Day care ⁵	-	-	-
	Other services ⁵	-	-	-
	Total		721,100	-
Voluntary	Residential care	99,200	28.3	76,000
	Nursing care	95,700	28.7	74,200
	Domiciliary care	160,300	22.9	99,100
	Day care ⁵	-	-	-
	Other services ⁵	-	-	-
	Total		355,200	-
Total	Residential care	314,700	28.3	240,400
	Nursing care	292,300	28.7	226,600
	Domiciliary care	506,000	23.0	314,800
	Day care ⁵	-	-	-
	Other services ⁵	-	-	-
	Total		1,113,000	26.0

Source: Skills for Care, National Minimum Dataset – Social Care; Numbers rounded to the nearest 100. Totals may not equal the sum of services due to rounding.

2.2.2 Non-regulated service providers

The NMDS-SC also provides data on the non-regulated adult social care sector in England. Information taken from the NMDS-SC is presented in Table 2.5. This shows that there were an estimated 232,000 jobs in the non-regulated adult social care sector in England in 2016. The majority of these workers were estimated to work in the non-residential care sector (73%). There were over 180,000 FTEs in the non-regulated sector, working an average of nearly 29 hours a week.

⁵ Day care and other service provision is not inspected by the CQC, therefore there are no regulated jobs in these services.

Table 2.5 Number of jobs – non-regulated services, 2016

Type of provider	Type of service	Jobs	Average hours	FTEs
Total	Residential care	61,900	28.4	47,500
	Nursing care	-	-	-
	Domiciliary care	16,800	25.2	11,400
	Day care	36,500	27.8	27,400
	Other services	116,700	29.8	94,000
	Total	231,900	28.8	180,300

Source: Skills for Care, National Minimum Dataset – Social Care; Numbers rounded to the 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 England. However, recent research by SfC provided robust estimates of the number of individuals employing PAs (29%), the number of workers they employ (an average of 2.1 workers per employer) and the hours worked by PAs (17 hours per week). Using this research and the number of direct employers (Table 2.3), it is estimated that there are nearly 145,000 PA jobs in England which equates to nearly 66,000 FTEs.

Table 2.6 Number of Personal Assistants

Type of service	Jobs	Average hours	FTEs
Personal Assistants	143,100	17 / week	65,800

Source: NHS Digital; Skills for Care 'Individual employers and Personal Assistants'

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 England. In 2016, it was estimated that there were over 40,000 sites providing adult social care in England. If direct employers (who employ their own staff) are included, there are over 100,000 employers in the adult social care sector in England. There are over 1.3 million jobs at these sites (excluding PAs; nearly 1.5 million if PAs are included), which is the equivalent of around 1.0 million FTEs.

Table 2.7 Estimated total sites providing adult social care in England - 2016

Type of service	Number of sites where services are provided
Residential care	15,830
Nursing care	4,440
Domiciliary care	10,430
Day care	2,550
Other services	7,180
Direct employers	68,200
Total – excluding direct employers	40,420
Total – including direct employers	108,570

Source: Table 2.1 to Table 2.6. Totals may not equal the sum of services due to rounding.

Table 2.8 Estimated total number of jobs and FTEs in adult social care in England - 2016

Type of service	Jobs	FTEs
Residential care	376,500	288,000
Nursing care	292,300	226,600
Domiciliary care	522,800	326,200
Day care	36,500	27,400
Other services	116,700	94,000
Personal Assistants	143,100	65,800
Total – excluding Personal Assistants	1,344,900	962,200
Total – including Personal Assistants	1,488,000	1,027,900

Source: Table 2.1 to Table 2.6. Totals may not equal the sum of services due to rounding.

Evidence 1 Employment by nationality in England

The adult social care sector, like many others in the UK employs workers from other nations. SfC have analysed the adult social care workforce in England by worker nationality (SfC, 2016). This shows that approximately 83% of the adult social care workforce are British nationals, with 9% of the workforce non-EU nationals and 7% non-British EU nationals. This represents nearly 100,000 non-British EU nationals currently working in the adult social care sector in England. The registered nurse job group has the highest proportion of non-British EU nationals (16%).

The proportion of the adult social care workforce made up of non-British EU workers has increased slightly since 2012 (from 5%) while the proportion of non-EU workers has decreased (from 13%) over the same period.

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 who are recruited from non-EU countries.

SfC is a member of the Cavendish Coalition, a group of social care and health organisations working to ensure the system is properly staffed after the UK leaves the EU. The group has made recommendations to the UK Government for what is needed to maintain safe, high quality health and social care services after Brexit.

3 Income approach

The first approach used to produce estimates of GVA in the sector is the income approach. 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 sector

The NMDS-SC provides information about earnings in the adult social care sector in England, which is presented in Table 3.1. This shows that:

- The average earnings per FTE in the public sector are estimated to be higher than in the independent sector, for all types of service (over 20% higher in the public sector).
- The average earnings are highest in public sector domiciliary care (£20,400), and lowest in the private and voluntary sector residential care (£15,900).
- The average earnings in the regulated adult social sector are £16,400 for a FTE.
- The total value of adult social care earnings in the regulated sector in England is estimated to be nearly £13 billion.
- Earnings per FTE are higher in the public sector, but most of the earnings are in the private sector (64% of total earnings), since this is where most of the workforce is employed.

Earnings in the regulated adult social care sector in England are lower than average earnings in England. The average earnings for a FTE in England were estimated to be £34,400 (average earnings for a full-time worker) in 2016. Therefore, the earnings in the adult social care sector represent 48% of average earnings in England.

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	10,100	19,500	198,403
	Nursing care	1,800	18,900	33,469
	Domiciliary care	14,400	20,400	294,075
	Day care ⁶	-	-	-
	Other services ⁶	-	-	-
	Total		26,400	19,900
Private	Residential care	154,300	15,900	2,445,554
	Nursing care	150,600	16,900	2,539,745
	Domiciliary care	201,200	16,200	3,267,673
	Day care ⁶	-	-	-
	Other services ⁶	-	-	-
	Total		506,200	16,300
Voluntary	Residential care	76,000	15,900	1,204,527
	Nursing care	74,200	16,900	1,250,919
	Domiciliary care	99,100	16,200	1,609,451
	Day care ⁶	-	-	-
	Other services ⁶	-	-	-
	Total		249,300	16,300
Total	Residential care	240,400	16,100	3,848,484
	Nursing care	226,600	16,900	3,824,133
	Domiciliary care	314,800	16,400	5,171,199
	Day care ⁶	-	-	-
	Other services ⁶	-	-	-
	Total		781,800	16,400

Source: Skills for Care, National Minimum Dataset – Social Care; FTEs and earnings 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.

3.2 Earnings - non-regulated sector

Table 3.1 presents the earnings in the non-regulated adult social care sector in England. Again, the estimated number of FTEs has been multiplied by the average earnings for a FTE. The value of earnings in the non-regulated adult social care sector in England is estimated to be £3.8 billion (see Table 3.2).

⁶ Day care and other service provision is not inspected by the CQC, therefore there are no regulated jobs or earnings in these services.

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	47,500	16,000	760,129
	Nursing care ⁷	-	-	-
	Domiciliary care	11,400	18,800	214,886
	Day care	27,400	16,700	458,626
	Other services	94,000	24,800	2,327,805
	Total	180,400	20,900	3,770,362

Source: Skills for Care, National Minimum Dataset – Social Care; FTEs and earnings 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.

3.3 Gross Operating Surplus

In addition to earnings / wages, income is generated through profits and rents. 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. It is the equivalent of earnings before interest, taxes, depreciation, amortization and restructuring or rent costs (EBITDAR).⁸

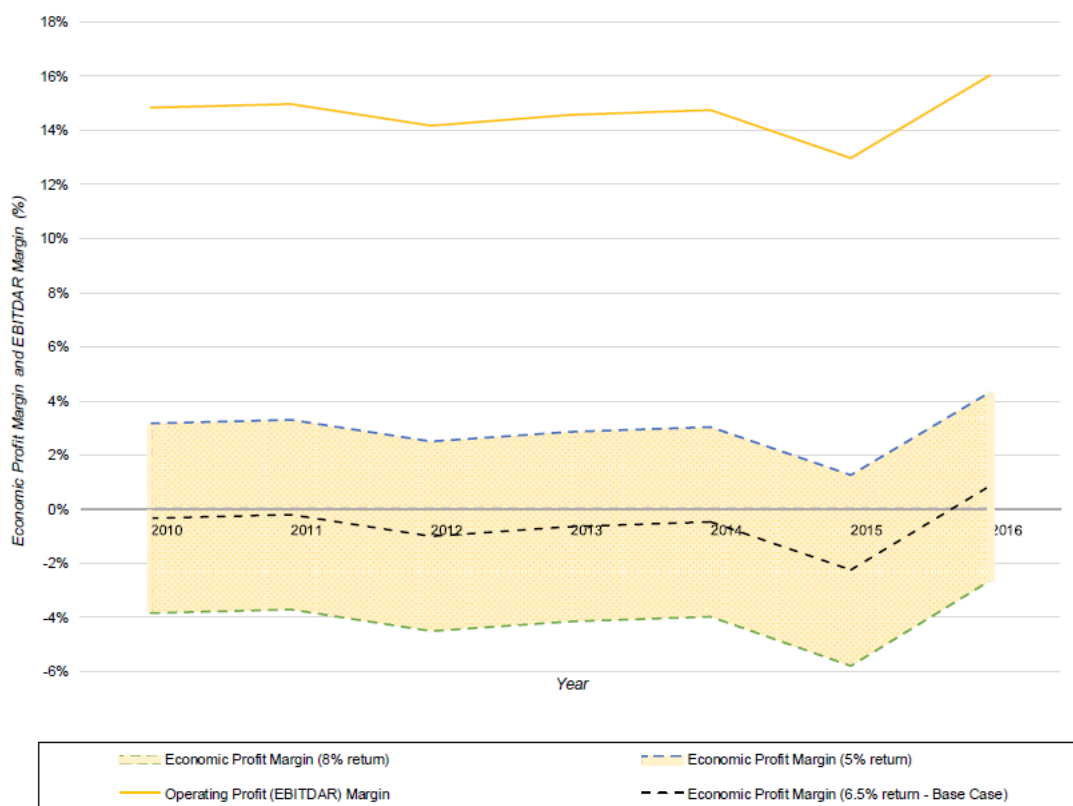
A positive GOS can lead to small or even negative overall profits. This is because the costs which are excluded from the estimated GOS can equal or exceed the value of the GOS. Figure 3.1 (taken from Competition and Markets Authority (CMA), 2017) illustrates this. Despite an average GOS of between 14%

⁷ All nursing care provision is regulated in England.

⁸ 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 0

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 overall loss.

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 (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 percentage of GOS (16%) was multiplied by the total output from the private residential sector. This gave an estimate of nearly £2 billion in the residential adult social care sector in England.

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.⁹ 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 estimated by multiplying these values by the output of the private and voluntary domiciliary care sector. This is estimated to be nearly £807 million in England 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. This is estimated to be £9.10 an hour (£17,500 per FTE). It is estimated that there are 66,000 FTE PAs in England. The number of FTEs has been multiplied by the estimated earnings for an FTE PA. The total earnings of PAs in England are estimated to be over £1 billion (see Table 3.3). More details of this methodology can be found in Annex 1.

Table 3.3 Estimated earnings of Personal Assistants

Type of service	Earnings per FTE (£)	Number of FTEs	Total wages (£'000)
Personal Assistants	17,500	65,800	1,151,274

Source: NHS Digital, Adult Social Care Outcomes Framework; Skills for Care “Individual Employers and Personal Assistants”; Skills for Care, National Minimum Dataset – Social Care. 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 profits generated in the income approach. In England in 2016, it was estimated that adult social care GVA was £20.3 billion using this approach. The largest proportion of GVA was estimated to be in the domiciliary care sector (31% of the total value of the sector), although the domiciliary sector also represents a large proportion of the total GVA (see Table 3.4).

⁹ 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	4,608,613	671,225	5,279,838
Nursing care	3,824,133	1,042,889	4,867,022
Domiciliary care	5,386,085	806,567	6,192,652
Day care	458,626	-	458,626
Other services	2,327,805	-	2,327,805
Personal Assistants	1,151,274	-	1,151,274
Total	17,756,536	2,520,681	20,277,218

Source: Skills for Care, National Minimum Dataset – Social Care; NHS Digital; Skills for Care “Individual Employers and Personal Assistants”; LaingBuisson (2017) Care of Older People; ICF analysis. 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 England

The population of England is estimated to grow by over six million people by 2039, to a total population of 62 million (an 11% growth in population). However, the population of individuals aged 65 or over is anticipated to grow by five million (from ten million in 2016). This represents a growth of 50% in the number of people aged 65 or over in England.

This is expected to drive an increase in demand for adult social care in future years in England. SfC have produced projections of the size of the adult social care workforce up until 2030 using data for the number of jobs and the number of individuals aged 65 and over in each local authority in England alongside the population projections. The number of jobs is forecast to rise to between 1.9 million and 2.25 million by 2030.

The UK Commission for Employment and Skills (UKCES, 2016) 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 England, employment in this group was estimated to grow by an average of 1.3% each year between 2014 and 2024.

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 England (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 payments 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

NHS Digital 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 nearly £17 billion in 2015/16, with a further £2.6 billion coming from client contributions and joint arrangements. This gives a total estimate of £19.6 billion of gross expenditure of adult social care in England.
- Most public sector and co-funding expenditure was for the care of older people (47% 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; 82% 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 (£'000)	Co-funding (£'000)	Total (£'000)
Older people (65+)	7,053,725	2,166,357	9,220,082
Physically disabled (18+)	1,260,877	129,032	1,389,909
Learning disabled (18+)	56,083	8,100	64,183
Mental health needs (18+) ¹⁰	5,244,943	339,855	5,584,798
Other	3,354,602	-	3,354,602
Total	16,970,231	2,643,344	19,613,575

Source: NHS Digital: Personal Social Services: Expenditure and Unit Cost. 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) estimates the proportion of residential and nursing care residents who are self-funders in England (46%). 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 LaingBuisson (2017), therefore the estimate of 46% for England appears to be consistent with other studies.¹¹

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 England is 30%.

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 pressure (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) also recently estimated the mark-up for self-funders as being over 40% in residential care. These are higher mark-ups 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

¹⁰ Including Support for memory and cognition (18-64)

¹¹ It should be noted that the proportion of self-funders would be expected to fall if the capital assets threshold is increased. However, as the Government has for the moment decided not to implement Phase 2 of the Care Act.

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 England, the total value of self-funded adult social care expenditure was nearly £11 billion. The largest proportion of self-funding expenditure was for residential and nursing care (65% of the self-funded total). The total estimated value of expenditure on adult social care in England is over £30 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	6,903,671	39,300	73,000	2,872,110	9,775,781
Nursing care	2,121,574	46,600	83,500	3,888,302	6,009,875
Domiciliary care ¹²	3,424,130	16,700	132,900	2,217,309	5,641,439
Day care ¹²	-	-	-	-	-
Other services ¹³	5,571,581	-	-	1,669,929	7,241,510
Direct payments	1,592,620	-	-	-	1,592,620
Total	19,613,575			10,647,650	30,261,225

Source: NHS Digital: Personal Social Services: Expenditure and Unit Cost; LaingBuisson (2017) Care of Older People; PSSRU Unit Cost of Health and Social Care (2016); NHS Digital (2016): Community Care Statistics; Number of self-funders and unit costs 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 £20.4 billion in 2015/16 in England. The largest proportion of GVA was from the residential and nursing care sub-sectors (£12 billion; 58% of total GVA).

¹² Home care and supported living from the NHS Digital data

¹³ There is no separate item in the NHS Digital data for day care. It is assumed that day care expenditure falls into "other services" – which includes "Other long-term care services" and "Short-term care services and other expenditure"

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	9,775,781	73%	7,179,894
Nursing care	6,009,875	76%	4,568,435
Domiciliary care	5,504,568	51%	2,828,532
Day care	-	-	-
Other services ¹⁴	7,241,510	66%	4,790,216
Direct payments	1,592,620	66%	1,053,509
Total	30,261,225		20,420,586

Source: NHS Digital: Personal Social Services: Expenditure and Unit Cost; LaingBuisson (2017) Care of Older People; PSSRU Unit Cost of Health and Social Care (2016); Annual Business Survey; Community Care Statistics; Number of self-funders and unit costs 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.

Evidence 3 Effect of public funding of 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.

¹⁴ Ibid.

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 is then converted to GVA (output less purchase of intermediate goods and services).

5.1 Output from the residential care sector

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 England and the occupancy rate. The figures in the LaingBuisson report have been used in this analysis.

The data shows that the private sector is the largest provider of adult social care in England, and represents 76% of the total residential care capacity, and 87% of total nursing care capacity for older people (a total of 318,000 private care 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).¹⁵ These estimates have been used to estimate the output of the residential care sector in England for 2015/16. These estimates were selected as they provided more differentiation by type of care and provider.

Table 5.1 presents an estimate of the total output of residential and nursing care for older people in England. 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 £13 billion. The private sector has the largest output (£11 billion; 80% of total output), and the output for nursing care was higher than for residential care (nursing care represents 57% of the total residential and nursing care output).

¹⁵ PSSRU (2016) Unit Costs of Health and Social Care in England

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

		Private	Voluntary	Public	Total
Capacity (places)	Nursing	180,400	19,500	6,400	206,300
	Residential	137,800	32,800	11,100	181,600
Occupancy (places)	Nursing	162,800	17,600	5,800	186,200
	Residential	128,500	30,600	10,400	169,400
Output (£'000)	Nursing	6,518,053	704,908	386,015	7,608,976
	Residential	4,195,158	998,253	572,741	5,766,152
Unit cost (£ per week)	Nursing	770	770	1,290	
	Residential	630	630	1,060	

Source: LaingBuisson (2017) *Care of Older People*; PSSRU (2016) *The 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 the LaingBuisson report 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).

NHS Digital allows estimates for the number of residential and nursing care beds that are occupied by younger adults in England. These statistics have been used to estimate the output of residential and nursing care for younger adults (with mental health, learning disability and physical needs). This data only allows a breakdown between independent and public provision.

A unit cost for residential care for younger adults in residential care has been estimated using information from PSSRU (2017) for young adults with mental health needs and learning disabilities. The unit costs have been weighted based on the estimated number of younger people in residential care with mental health and learning disabilities.

Using the information described above, Table 5.2 presents the estimated output for residential care of younger adults with in residential care. In 2015/16, it was estimated that this sub-sector had an output of £2.7 billion in England.

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

		Private	Voluntary	Public	Total
Capacity (places)	Nursing				
	Residential				
Occupancy (places)	Nursing				
	Residential	41,000		1,500	42,600
Output (£'000)	Nursing				
	Residential	2,592,282		99,875	2,692,157
Unit cost (£ per week)	Nursing				
	Residential	1,200		1,300	

Source: LaingBuisson (2017) *Care of Older People*; PSSRU (2016) *The unit cost of health and social care (2016)*; Care Quality Commission, *The state of health care and adult social care in England - An overview of key themes in care*. Output totals may be not sum due to rounding.

5.2 Output from non-residential adult social care sector

An approach using data from the NHS Digital and estimated unit costs from the PSSRU (2016) can be used to estimate the output of the non-residential care sector in England.

NHS Digital provides data for the number of individuals receiving different types of non-residential care in England. This provides details of the number of people receiving funding for domiciliary care (nearly 450,000) but not the number of self-funders. The number of self-funders receiving domiciliary care was estimated to be 133,000. The number of individuals receiving care is the sum of self-funders and those receiving payment for their care.

The unit costs for domiciliary care are taken from the PSSRU estimates (324 per contact hour). The total output is estimated by multiplying the unit cost by the number of users and the number of hours of care used a 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 England is estimated to be nearly £17 billion in 2015/16. The domiciliary care sector has the largest output in the non-residential care sector in England.

Table 5.3 Estimated output of other adult social care sectors

	Number of users	Hours per person per year	Unit cost (£)	Total output (£'000)
Domiciliary care	576,600	618	24	8,546,823
Day care	-	-	-	-
Other	-	-	-	7,241,510
Direct payments ¹⁶	68,200	884	15	903,669
Total				16,692,002

Source: LaingBuisson (2017) *Care of Older People*; PSSRU (2016) *The unit cost of health and social care (2016)*; NHS Digital: *Personal Social Services: Expenditure and Unit Cost*; LaingBuisson (2017) *Care of Older People*; 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 England 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 sub-sectors. Applying these ratios to the estimated expenditures provides an estimate of GVA for the sector of nearly £22 billion in 2015/16 in England. The residential and nursing care sectors had the largest estimated GVA 28% of the total value of the sector in nursing care and 27% in residential care).

¹⁶ Only including individuals who directly employ Personal Assistants.

Table 5.4 Output estimates of adult social care and related GVA

	Total output (£'000)	Turnover to GVA ratio	GVA (£'000)
Residential care	8,096,601	73%	5,946,608
Nursing care	7,970,684	76%	6,058,953
Domiciliary care	8,546,823	51%	4,391,801
Day care	-	-	-
Other services	7,241,510	66%	4,790,216
Direct payments ¹⁷	903,669	51%	464,352
Total	31,855,619		21,651,931

Source: LaingBuisson (2017) *Care of Older People*; PSSRU: *The unit cost of health and social care (2016)*; NHS Digital: *Personal Social Services: Expenditure and Unit Cost*; LaingBuisson (2017) *Care of Older People*; ICF analysis. Individual row totals may be not sum due to rounding. Totals may not equal the sum of services due to rounding.

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.

¹⁷ Ibid.

6 Indirect and induced effect

6.1 Introduction

The previous sections estimated the direct economic contribution of the adult social care sector in England. 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 England specific input-output (I-O) tables, the multipliers for the whole of the UK have been used.

The latest UK I-O analytical tables¹⁸ provide estimates of Type I GVA, output and employment multipliers. The relevant product group for this study is the ONS-defined 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;
- 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

¹⁸ ONS, Detailed United Kingdom Input-Output Analytical Tables, 2013 (consistent with UK National Accounts Blue Book & UK Balance of Payments Pink Book)

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 show that indirect effects of intermediate purchases made by the adult social care sector were estimated to contribute an additional 510,000 jobs¹⁹ and between £8.9 billion and £10.0 billion of GVA in England.

The additional GVA experienced by supply chain businesses is about 45% of the sectors direct contribution to the economy. 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 34% of the direct employment in the sector.

¹⁹ These are jobs, not FTE.

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

	Income approach	Expenditure approach	Output approach
GVA			
GVA (public sector) (£'000)	2,040,863	3,613,784	3,632,516
GVA (private sector) (£'000)	13,216,080	13,673,517	14,559,302
GVA (voluntary sector) (£'000)	5,020,275	3,133,285	3,460,113
Total GVA (£'000)	20,277,218	20,420,586	21,651,931
Type I multiplier		Private: 1.32 Public: 1.94 Voluntary: 1.56	
Indirect GVA (public sector) (£'000)	1,909,494	3,381,166	3,398,693
Indirect GVA (private sector) (£'000)	4,221,910	4,368,040	4,651,006
Indirect GVA (voluntary sector) (£'000)	2,794,290	1,743,990	1,925,902
Total indirect GVA (£'000)	8,925,694	9,493,196	9,975,601
Total direct and indirect GVA (£'000)	29,202,912	29,913,782	31,627,532
Employment			
Direct employment (public sector)		111,900	
Direct private employment (private sector)		969,200	
Direct voluntary employment (voluntary sector)		406,900	
Total direct employment		1,488,000	
Type I multiplier		Private: 1.30 Public: 1.65 Voluntary: 1.37	
Indirect employment (public sector)		72,500	
Indirect employment (private sector)		287,400	
Indirect employment (voluntary sector)		150,300	
Total indirect employment		510,300	
Total direct and indirect employment		1,998,300	

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

6.3 Induced Effects²⁰

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

²⁰ 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.

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) are similar in size to the indirect GVA effect, but smaller than the indirect employment effect. The induced effects were estimated to support a further 213,000 jobs and £9.3 billion to £10.1 billion of GVA in the wider economy.

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

	Income approach	Expenditure approach	Output approach
GVA			
GVA (public sector) (£'000)	2,040,863	3,613,784	3,632,516
GVA (private sector) (£'000)	13,216,080	13,673,517	14,559,302
GVA (voluntary sector) (£'000)	5,020,275	3,133,285	3,460,113
Total GVA (£'000)	20,277,218	20,420,586	21,651,931
Type II multiplier		Private: 1.74 Public: 2.55 Voluntary: 2.05	
Induced multiplier		1.32	
Induced GVA (public sector) (£'000)	1,255,323	2,222,817	2,234,339
Induced GVA (private sector) (£'000)	5,541,348	5,733,146	6,104,545
Induced GVA (voluntary sector) (£'000)	2,483,269	1,549,874	1,711,538
Total induced GVA (£'000)	9,279,940	9,505,837	10,050,422
Total direct, indirect and induced GVA (£'000)	38,482,852	39,419,619	41,677,954
Employment			
Direct employment (public sector)		111,900	
Direct employment (private sector)		969,200	
Direct employment (voluntary sector)		406,900	
Total direct employment		1,488,000	
Type II multiplier		Private: 1.43 Public: 1.82 Voluntary: 1.52	
Induced multiplier		1.11	
Induced employment (public sector)		19,600	
Induced employment (private sector)		133,800	
Induced employment (voluntary sector)		59,300	
Total induced employment		212,800	
Total direct, indirect and induced employment		2,211,100	

Source: ICF analysis; Employment figures 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 England

The adult social care sector is estimated to support a total of 2.2 million jobs and £38.5 billion to £41.7 billion of GVA in England. 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 48% the GVA generated, and just under one third of total employment (32%).

Public sector providers of adult social care services and their associated expenditures support 10% of the total jobs and between 15% and 16% of GVA generated by the sector (including indirect and induced effects). This is despite the

public sector representing 8% of employment and 12% of direct GVA. The differences are due to public sector multiplier effects being higher than for the private sector.

The overall sector and the indirect and induced effects of associated expenditures are estimated to represent 2.4% to 2.5% of all GVA and 8% of all jobs in England.

Evidence 5 Value of informal care in England

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

The research uses data from the 2011 Census and population estimates to calculate that over 5.7 million individuals were providing over 6 billion hours of informal care to adults in England in 2015. Using an estimate of £17 per hour of care provided, the value of informal care in England was estimated to be over £108 billion in 2015 – larger than the value of the formal adult social care.

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 England, so that the size and scale of the adult social care sector can be identified. The estimates are also compared to the value of adult social care in Northern Ireland, Scotland and Wales.

7.1 Summary of findings

The key findings from the research are presented in Table 7.1. This presents estimates which show that:

- There were nearly one and a half million jobs in the adult social care sector, and there were over 1 million FTEs. These jobs were estimated to generate £20.3 billion to £21.7 billion in GVA, and the level of productivity (GVA per worker) was estimated to be between £19,700 and £21,100 per FTE.
- The indirect effect of the adult social care sector was estimated to be over 510,000 jobs (or over 357,000 FTEs) and between £8.9 billion and £10.0 billion 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 nearly 213,000 (nearly 148,000 FTEs) and between £9.3 billion and £10.1 billion of GVA.

The total direct, indirect and induced value of the adult social care sector in England is estimated to be over 2.2 million jobs over 1.5 million FTEs and between £38.5 billion and £41.7 billion in GVA.

Table 7.1 Summary of findings

	Income approach	Expenditure approach	Output approach
Total direct employment		1,488,000	
Total FTE employment		1,027,900	
Total direct GVA (£'000)	20,277,218	20,420,586	21,651,931
Estimated productivity per job (£)	13,600	13,700	14,600
Estimated productivity per FTE (£)	19,700	19,900	21,100
Indirect employment (jobs)		510,300	
Indirect employment (FTE)		357,400	
Induced employment (jobs)		212,800	
Induced employment (FTE)		147,600	
Total jobs due to adult social care activity		2,211,100	
Total FTE jobs due to adult social care activity		1,533,000	
Indirect GVA (£'000)	8,925,694	9,493,196	9,975,601
Induced GVA (£'000)	9,279,940	9,505,837	10,050,422
Total GVA due to adult social care activity (£'000)	38,482,852	39,419,619	41,677,954

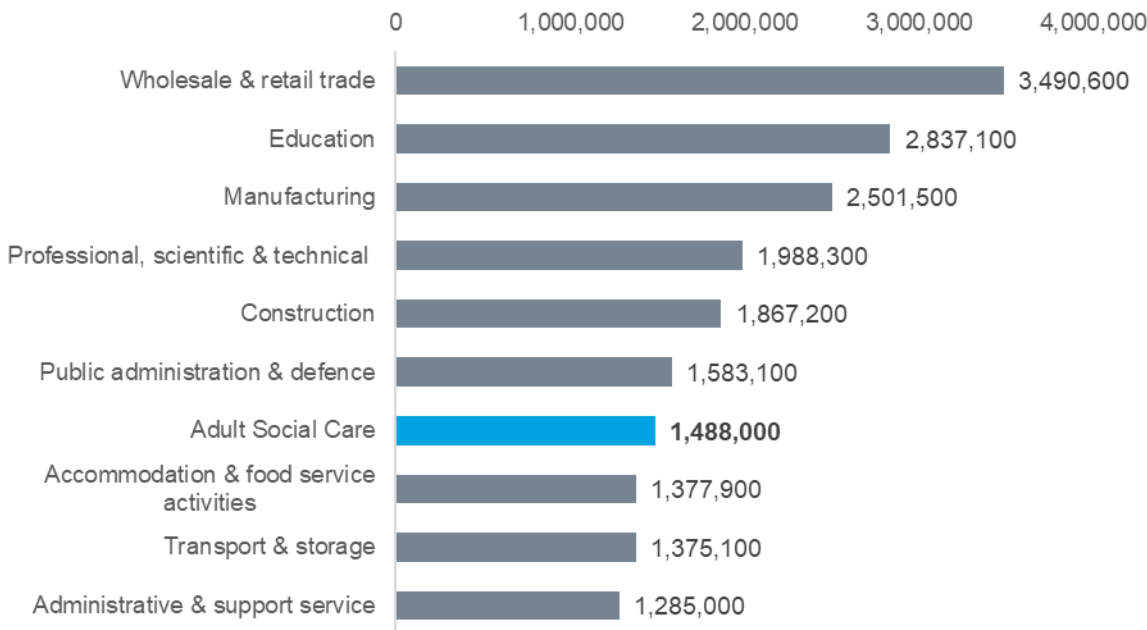
Source: ICF analysis; Employment and productivity figures rounded to the nearest 100. Totals may not equal the sum of services due to rounding.

7.2 Benchmarking

The Annual Population Survey (APS) provides estimates of the number of individuals working in each broad sector in England. 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, and accommodation and food services sectors. Direct employment in the adult social care represents 6% of total employment in England. This shows that adult social care is an important sector in terms of current employment in England.

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

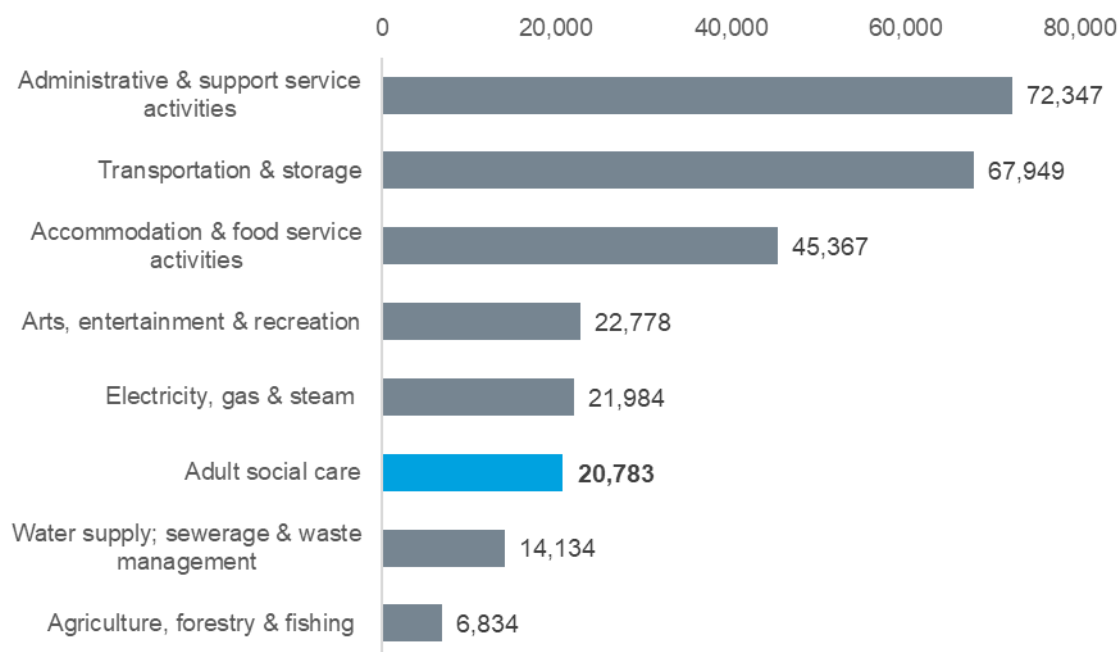


Source: Annual Population Survey; ICF analysis. Employment rounded to nearest 100. Human health and social work activities excluded from analysis

The estimated value of GVA by industry in England is presented in the Regional GVA statistical series. This presents GVA by broad industrial group. The total value of GVA in England in 2016 was estimated to be £1,496 billion. Direct GVA from the adult social care sector (£21 billion) is estimated represent 1.4% of total English 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 English 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), England, £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 England has been estimated using data from the ONS Labour Productivity data series. The estimated value of productivity in England was £64,300. Productivity in the adult social care sector was estimated to be between 30% and 33% of the average productivity in England. The estimated level of productivity in the adult social care sector in England was lower than any specified sector in the Labour Productivity data series.

A previous study estimated the economic value of the adult social care sector in England, published by SfC in 2013. However, differences between the studies mean it is difficult to directly compare the two sets of results. The key differences between the two studies are:

- The previous study estimated that there were 1.7 million jobs in adult social care, compared to the 1.5 million in this study. Part of this can be explained by the previous study including some health professionals who were assessed to provide adult social care services (such as occupational therapists). These workers have not been included in this analysis²¹.
- The estimated direct economic value of the adult social care sector was estimated to be £18.3 billion to £26 billion. The estimates produced for this study fall into this range.
- As the number of jobs is higher in the previous study and the levels of GVA are broadly comparable, the level of productivity is estimated to be higher in this study (around £20,000 per FTE, compared to £15,400 in the previous study).

²¹ The drop in the number of workers in between the 2013 study and this research is due to a redefinition of the workers included in the analysis, rather than a reduction in the number of workers in the adult social care sector. For a robust time series analysis of the number of jobs in the adult social care sector in England, please see Skills for Care (2017) The Size and Structure of the Adult Social Care Workforce.

- The indirect and induced economic effects of the adult social care sector are smaller in this analysis than in the previous study. This is because different (smaller) multiplier effects have been used to estimate the indirect and induced effects. The total economic value of the sector in the previous study was £43 billion and 2.8 million FTEs. This study has an estimated total value of £37 billion to £42 billion and 1.5 million FTEs.

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 adult social care sector in England is larger than in the other nations in absolute terms. This is expected given the population of England. The estimates show that:

- The level of productivity in the workforce is higher in England than in Wales and Northern Ireland, but lower than in Scotland;
- The estimated GVA per capita and GVA per person aged over 65 is higher in England than Northern Ireland, lower than Scotland and is similar to Wales; 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 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
Direct economic value					
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
Jobs	1,488,000	38,500	147,800	83,400	1,756,100
FTEs	1,027,900	28,900	109,600	61,600	1,228,000
Productivity per FTE					
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
GVA per capita					
Income approach (£)	370	290	420	370	370
Expenditure approach (£)	370	320	470	390	380
Output approach (£)	390	300	460	380	390
GVA per capita 65+					
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 England. 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 FTE 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 just 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 (UKHCA, 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 in England (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 unit 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 England

A1.2.1 Number of adult social care sites

The number of sites providing regulated adult social care services in England has been taken directly from the NMDS-SC database. The data included information for regulated and non-regulate adult social care services.

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

The number of workers, and the number of FTE equivalent jobs is collected in the NMDS-SC. This is collected for regulated and non-regulated adult social care services. The data in the analysis is taken directly from the NMDS-SC.²²

A1.3 The income approach to economic value

A1.3.1 Earnings

The earnings information was provided by SfC. The data is taken directly from the NMDS-SC.

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.

²² The NMDS-SC contains data for approximately 56% of the adult social care workforce.

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).²³

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 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 NHS Digital data and SfC research. NHS Digital 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 directly employ their own staff (29%). The other two thirds purchase existing social care services, such as residential or day care. Each individual directly employing staff employs an average 2.1 works.

²³ 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 0

On average, each PA works 17 hours per week (0.46 FTE). A PA in England has average earnings of £9.10 (£17,500 per FTE).

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

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 NHS Digital. 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 England.

LaingBuisson (2017) provides estimates of the proportion of individuals in residential care who are self-funders. In England, 46% 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 in a residential care setting (see Table A1.1).

NHS Digital produce statistics which show the number of people receiving funding for home care 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 in the UK fund their own homecare;²⁴
- 21% of individuals;²⁵
- Between 20% and 25%, based on studies between 2004 and 2011;²⁶
- 30% of individuals in England;²⁷ and
- 35% of expenditure on home care in England.²⁸

These findings 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 30% of individuals self-fund their domiciliary care in England.

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 30% of the total budget for other services in England is self-funded.

²⁴ 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

²⁵ UK Care Homes Association (2016) An overview of the Domiciliary Care Market in the UK

²⁶ National Institute for Health research (2014) People who fund their own social care

²⁷ Personal Social Services Research Unit (2015) Projections of Demand for and Costs of Social Care for Older People and Younger Adults, 2015 to 2035

²⁸ LaingBuisson (2017) Care of Older People

Table A1.1 Estimates of the number of self-funders, England

Type of provision	Total number of individuals receiving support	Proportion of individuals who are self-funders	Number of self-funders
Residential care	158,300	46%	73,000
Residential care with nursing	180,700	46%	83,500
Domiciliary care	443,500	30%	132,900
Day cases	-	-	-

LaingBuisson; NHS Digital; ICF calculations; Figures rounded to the nearest 100. 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 a year; and
- Domiciliary care users require 12 hours of care a week (618 hours 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 LaingBuisson (2017) research estimates that the mark-up is 46%. This mark-up has been added to the value of funded residential care. A 20% mark-up has been used for domiciliary care. The unit cost of social care for self-funders in England is presented in Table A1.2.

The number of self-funders is 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 England. This is then added to the value of public and co-funded expenditure to estimate the total expenditure in the adult social care sector.

Table A1.2 Unit costs for care in England

	Unit cost for funded individuals	Unit cost for self-funders
Residential care	£520 / week	£760 / week
Residential care with nursing	£640 / week	£900 / week
Domiciliary care	£23 / hour	£27 / hour
Day cases	-	-

PSSRU, Unit Cost of Health and Social Care, 2016; LaingBuisson; ICF calculations

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 England 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 were taken from PSSRU (2016).

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 England. 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 England.

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 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 England

As no assumptions or data manipulation was used to estimate the size and structure of the adult social care sector in England, no sensitivity analysis has been undertaken. The income approach to economic value

A2.2 Income approach

Table A2.1 presents the assumptions which have been varied for the income approach estimates. Sensitivity analysis has only been undertaken where assumptions or data manipulation has been used. For the income approach, this only included the level of profit generated.

Table A2.1 Assumptions varied in the sensitivity analysis of the income approach

	Low	Central	High	Calculation
GOS – residential care	7.5%	16%	19.5%	EDITBA; EDITBAR and higher LaingBuisson value for EDITBAR
GOS – private domiciliary care	8.3%	11.3%	15.3%	UKHCA report
GOS – voluntary domiciliary care	6.3%	8.3%	10.3%	UKHCA report

The results of the sensitivity analysis are presented in Table A2.2. 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 £2.1 billion. This represents 11% of the low estimate of the adult social care sector.

Table A2.2 Results of the sensitivity analysis of the income approach

GVA estimate	Low (£'000)	Central (£'000)	High (£'000)
Residential care	4,909,221	5,279,838	5,481,380
Nursing care	4,287,592	4,867,022	5,161,181
Domiciliary care	5,912,012	6,192,652	6,562,120
Day care	458,626	458,626	458,626
Other services	2,327,805	2,327,805	2,327,805
Direct payments	1,151,274	1,151,274	1,151,274
Total	19,046,531	20,277,218	21,142,385

Individual row totals may 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 A2.3. 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 A2.3 Assumptions varied in the sensitivity analysis of the income approach

	Low	Central	High	Calculation
Proportion of individuals who are self-funders				
Residential care	43.8%	46.2%	48.5%	+/- 5% to reflect uncertainty; Assumed 25% of non-residential care services in England are self-funders (low); 32% are self-funders (high)
Nursing care	43.8%	46.2%	48.5%	
Domiciliary care	25%	30%	32%	
Day care	25%	30%	32%	
Proportion of 'other services' which are self-funded	25%	30%	32%	
Unit cost of self-funded care				
Residential care	£720 / week	£760 / week	£780 / week	+/- 5% to reflect uncertainty
Nursing care	£850 / week	£900 / week	£900 / week	
Domiciliary care	£24 / hour	£27 / hour	£29 / hour	
Day care	-	-	-	

The results from the sensitivity analysis are presented in Table A2.4. This shows a range in the estimates of £1.0 billion due to the changes in the assumptions. This represents 5% of the low estimate of total GVA of the adult social care sector.

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

GVA estimate	Low (£'000)	Central (£'000)	High (£'000)
Residential care	7,078,313	7,179,894	7,245,634
Nursing care	4,417,622	4,568,435	4,582,616
Domiciliary care	2,540,955	2,828,532	2,968,153
Day care	-	-	0
Other services	4,606,108	4,790,216	4,863,860
Direct payments	1,053,509	1,053,509	1,053,509
Total	19,696,507	20,420,586	20,713,772

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 A2.5.

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

	Low	Central	High	Calculation
Unit cost of adult social care				+/- 5% to reflect uncertainty
Residential care – public provision	£1,010 / week	£1,060 / week	£1,120 / week	
Residential care – private provision	£600 / week	£630 / week	£670 / week	
Nursing care	£730 / week	£770 / week	£810 / week	
Domiciliary care	£22 / hour	£24 / hour	£26 / hour	
Day care	-	-	-	
Residential care for younger adults	£1,160 / week	£1,220 / week	£1,280 / week	
Direct payment recipients	£14 / hour	£15 / hour	£16 / hour	
Number of self-funded care users	See Table A2.3			

The results of the sensitivity analysis are presented in Table A2.6. 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 £20.3 billion to £22.8 billion. This represents a £2.5 billion difference between the high and low estimates, or 12% of the low value of the sector.

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

GVA estimate	Low (£'000)	Central (£'000)	High (£'000)
Residential care	5,678,509	5,946,608	6,316,296
Nursing care	5,746,107	6,058,953	6,374,205
Domiciliary care	3,883,406	4,391,801	4,817,923
Day care	-	-	-
Other services	4,606,108	4,790,216	4,863,860
Direct payments	433,395	464,352	495,309
Total	20,347,525	21,651,931	22,867,592

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

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