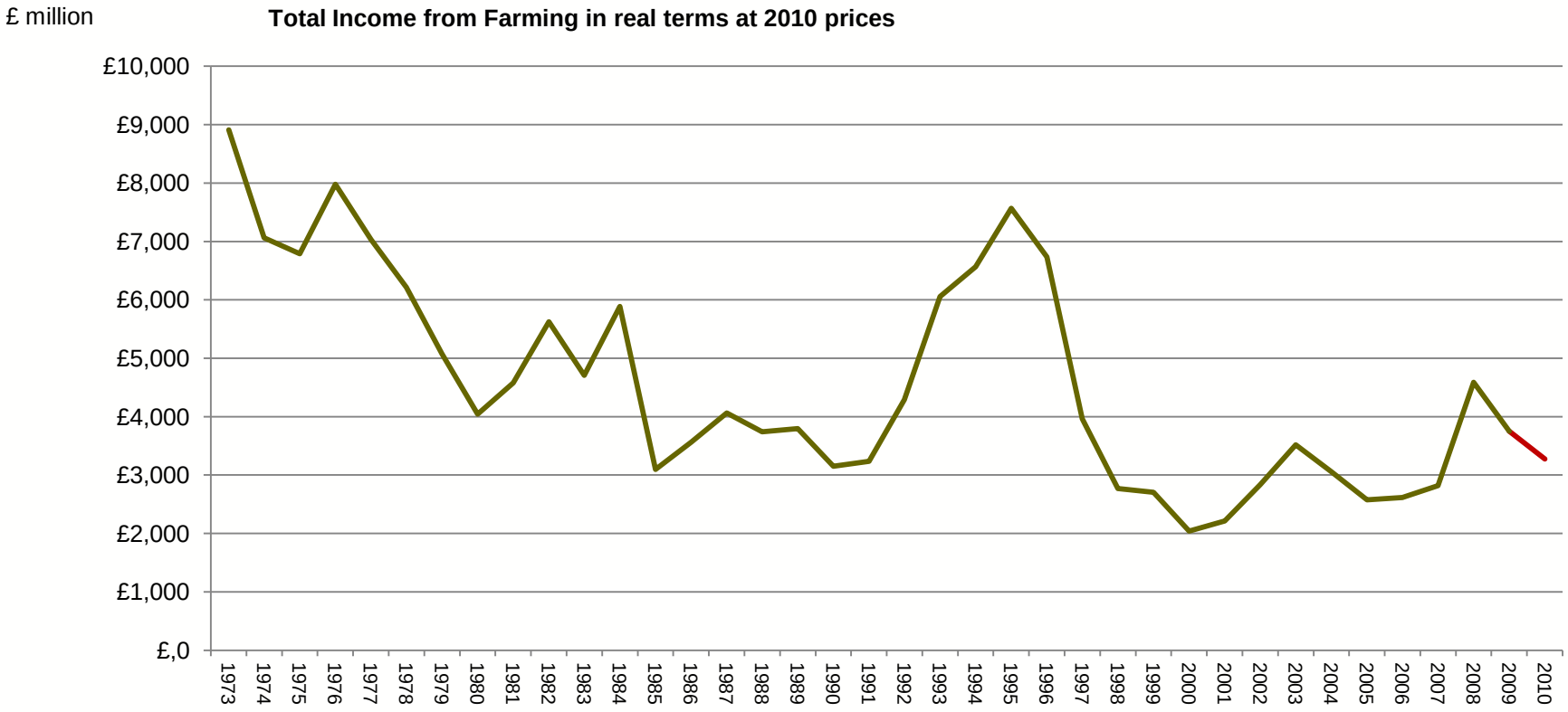
OECD Network for Farm Level Analysis, 7th – 8th April 2011

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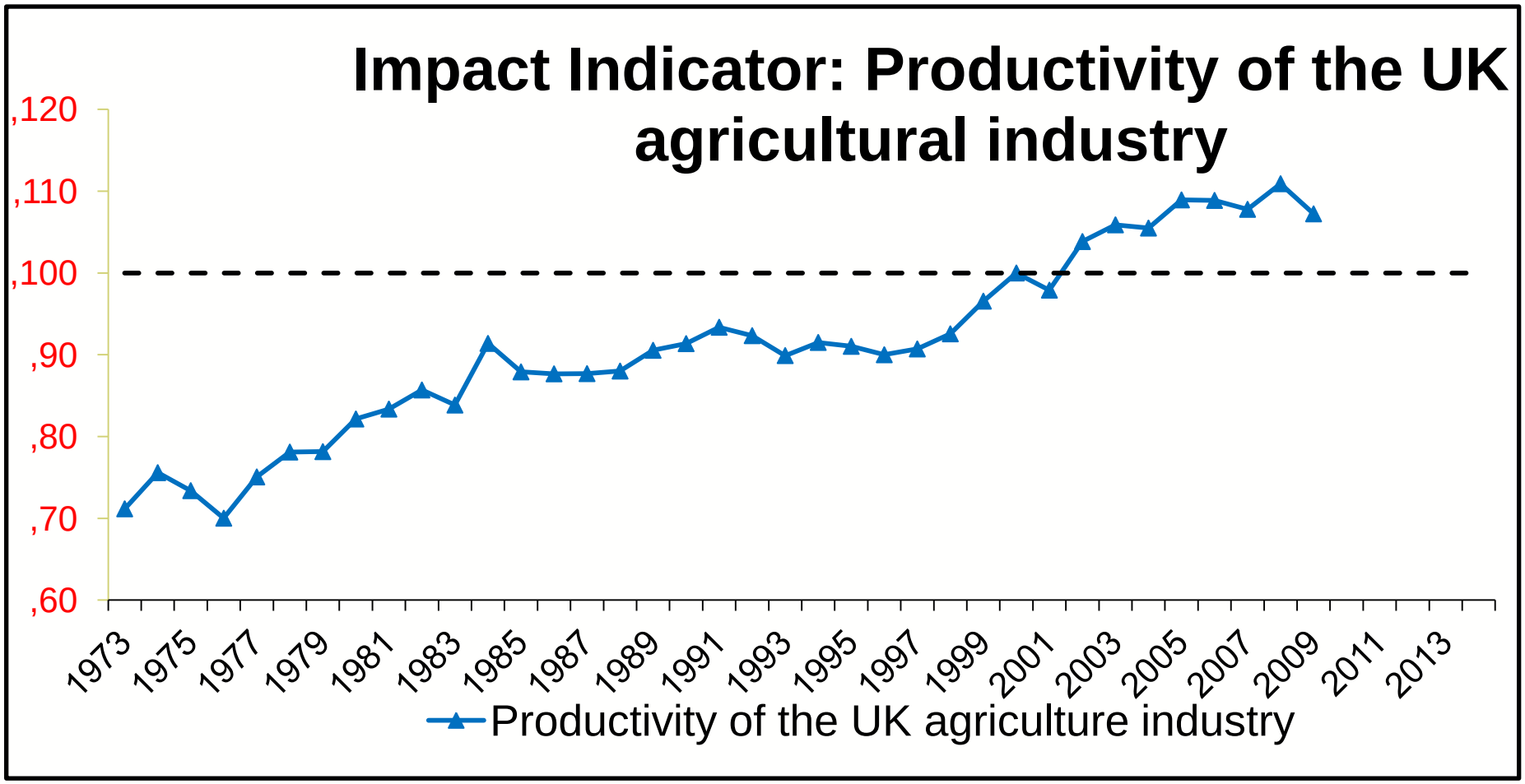
Economics at the Farm Level

– including some latest findings from the Farm Business Survey in England

Total Income from Farming

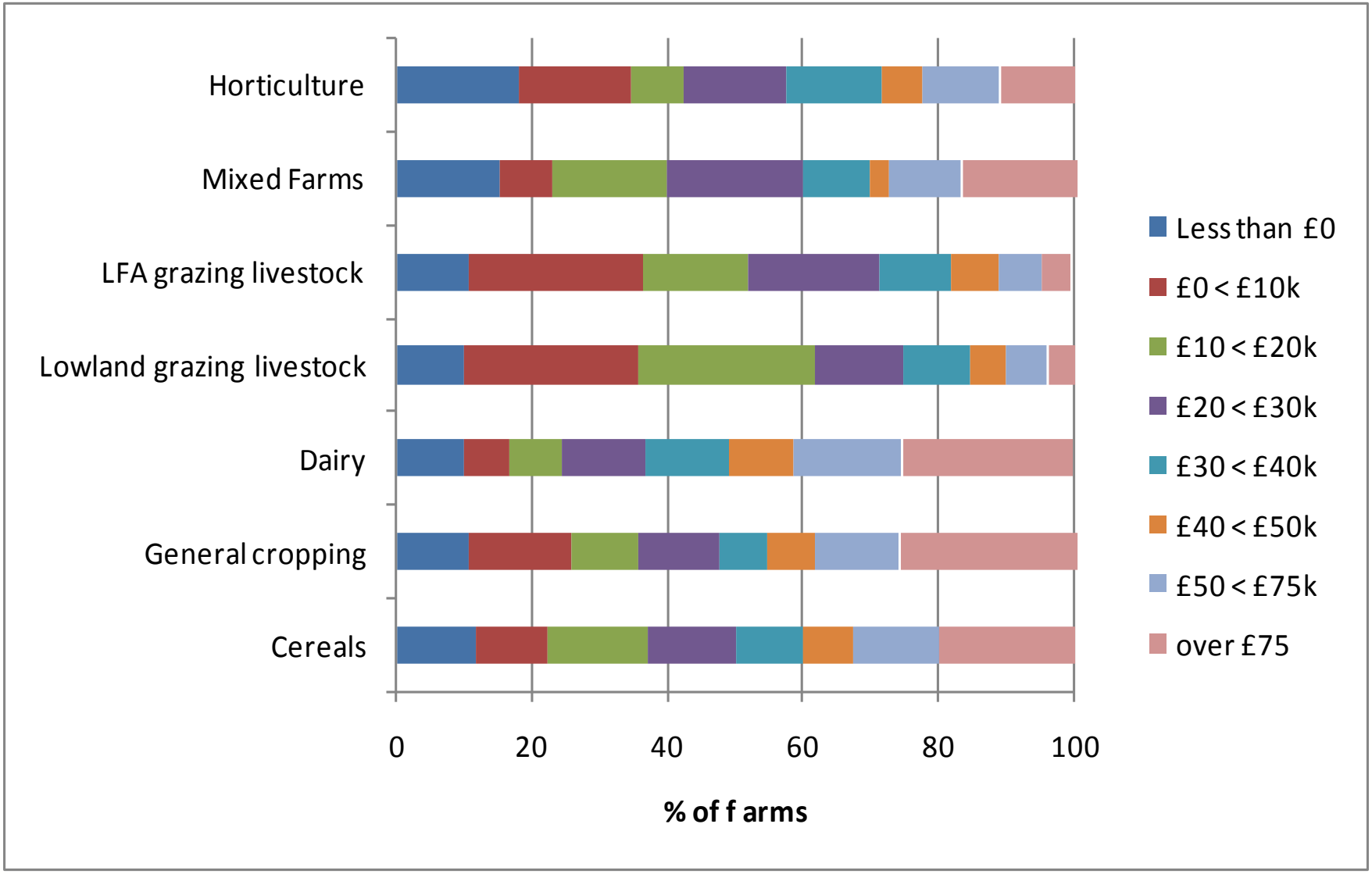


Total Factor Productivity

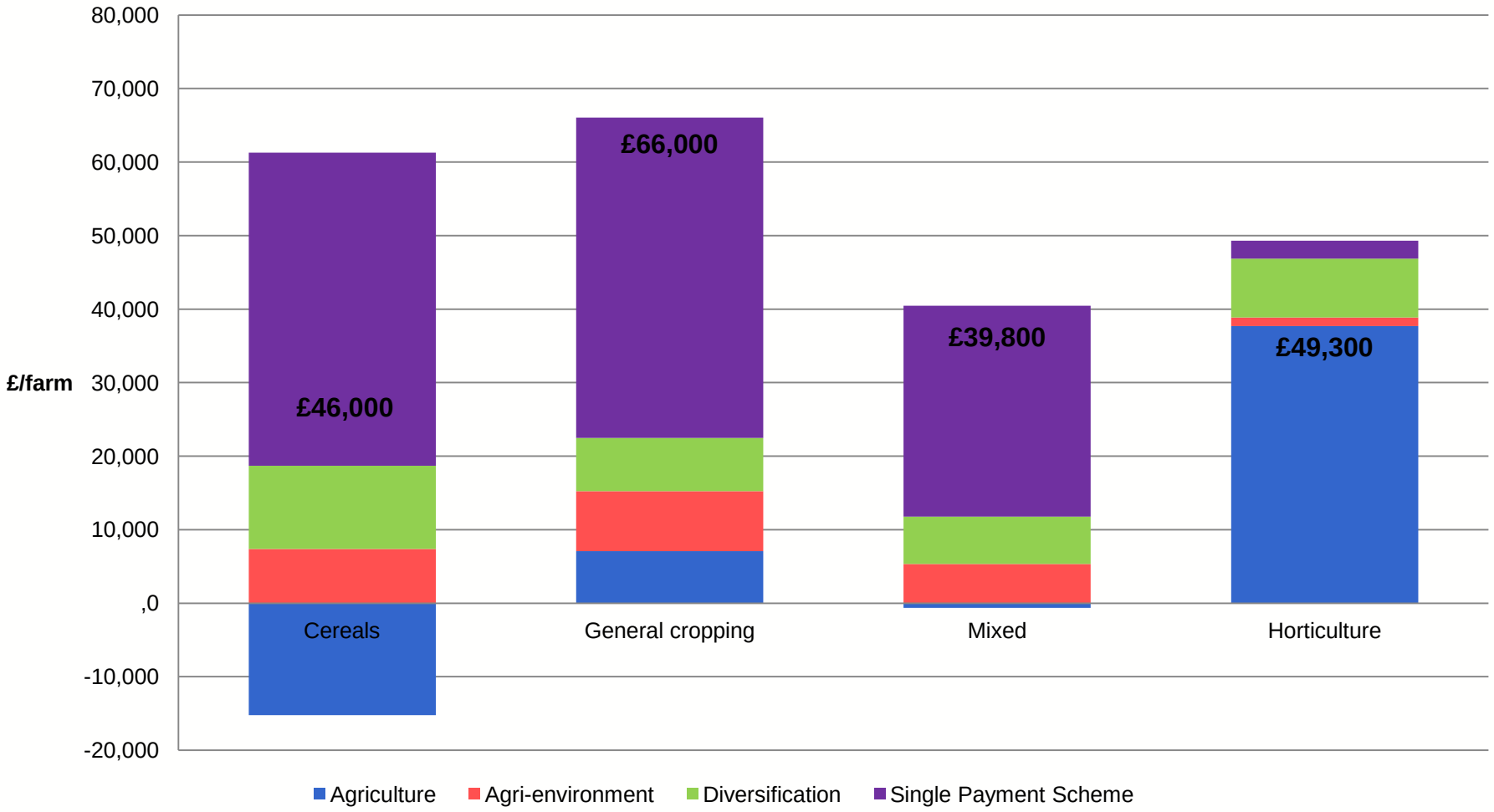


Distribution of farm business income by farm type 2009/10

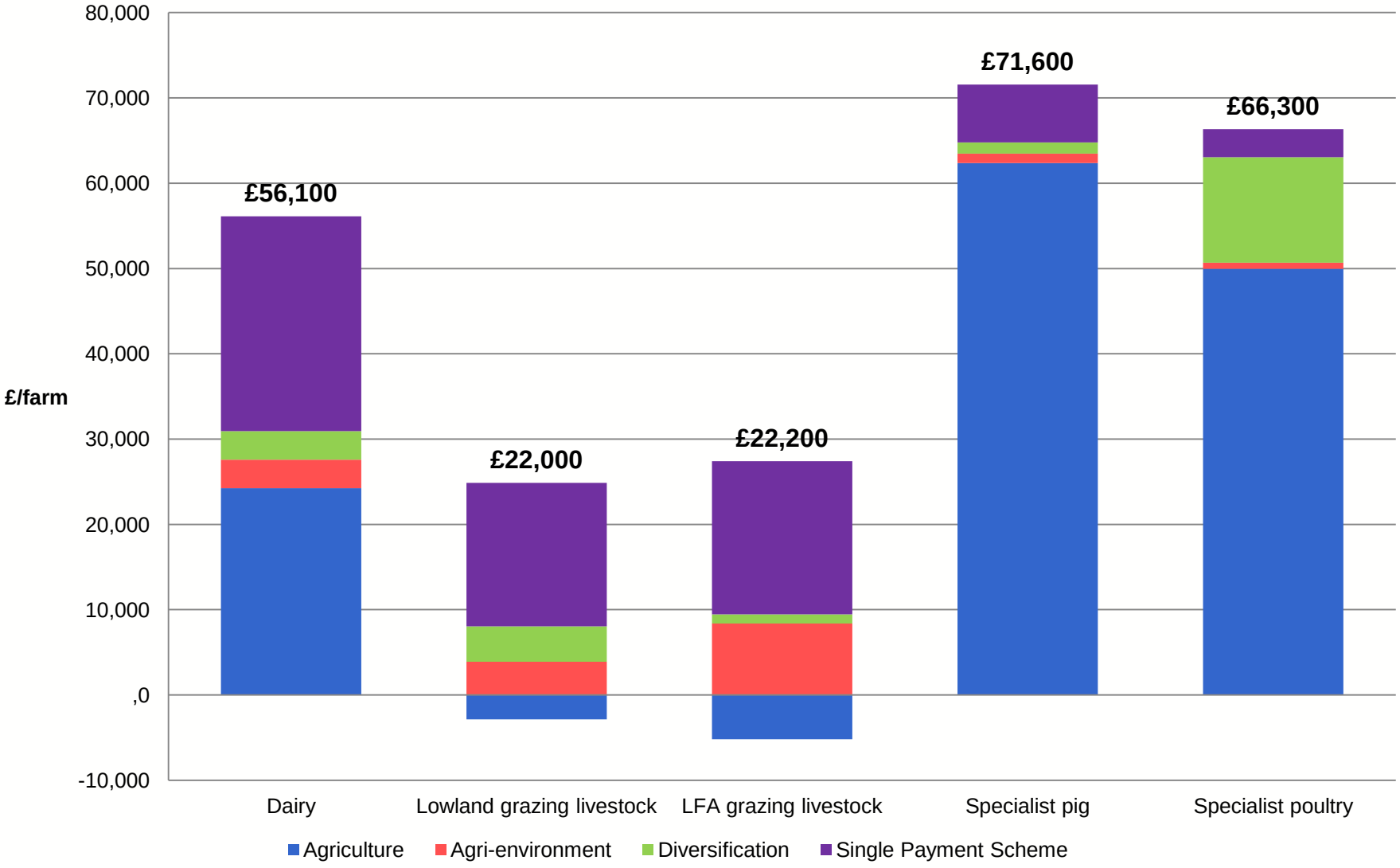
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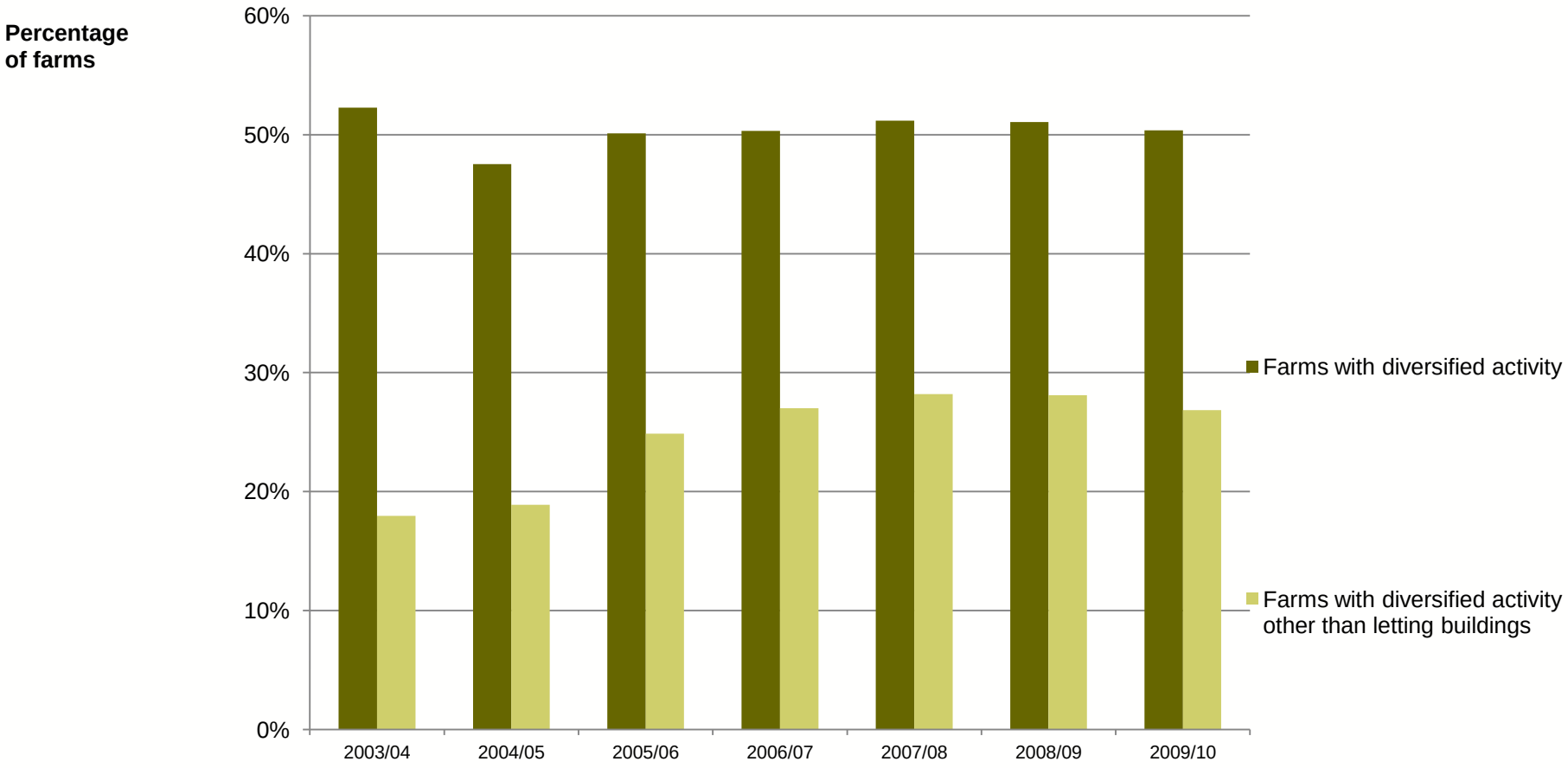
Breakdown of Farm Business Income by cost centre, cropping farms 2009/10



Breakdown of Farm Business Income by cost centre, livestock farms 2009/10

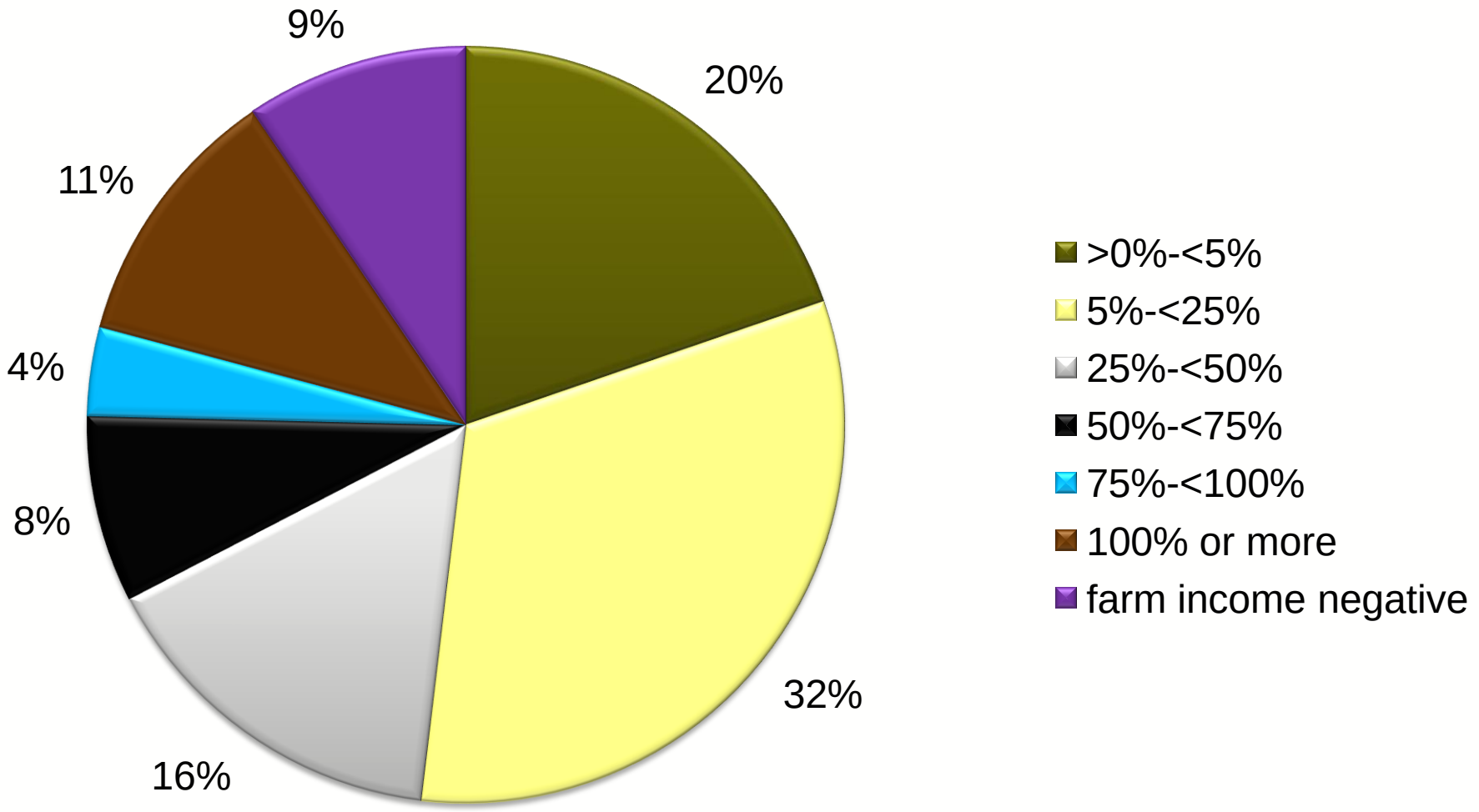


Percentage of farms with diversified activities – England 2003/04 to 2009/10



Source: Farm Business Survey

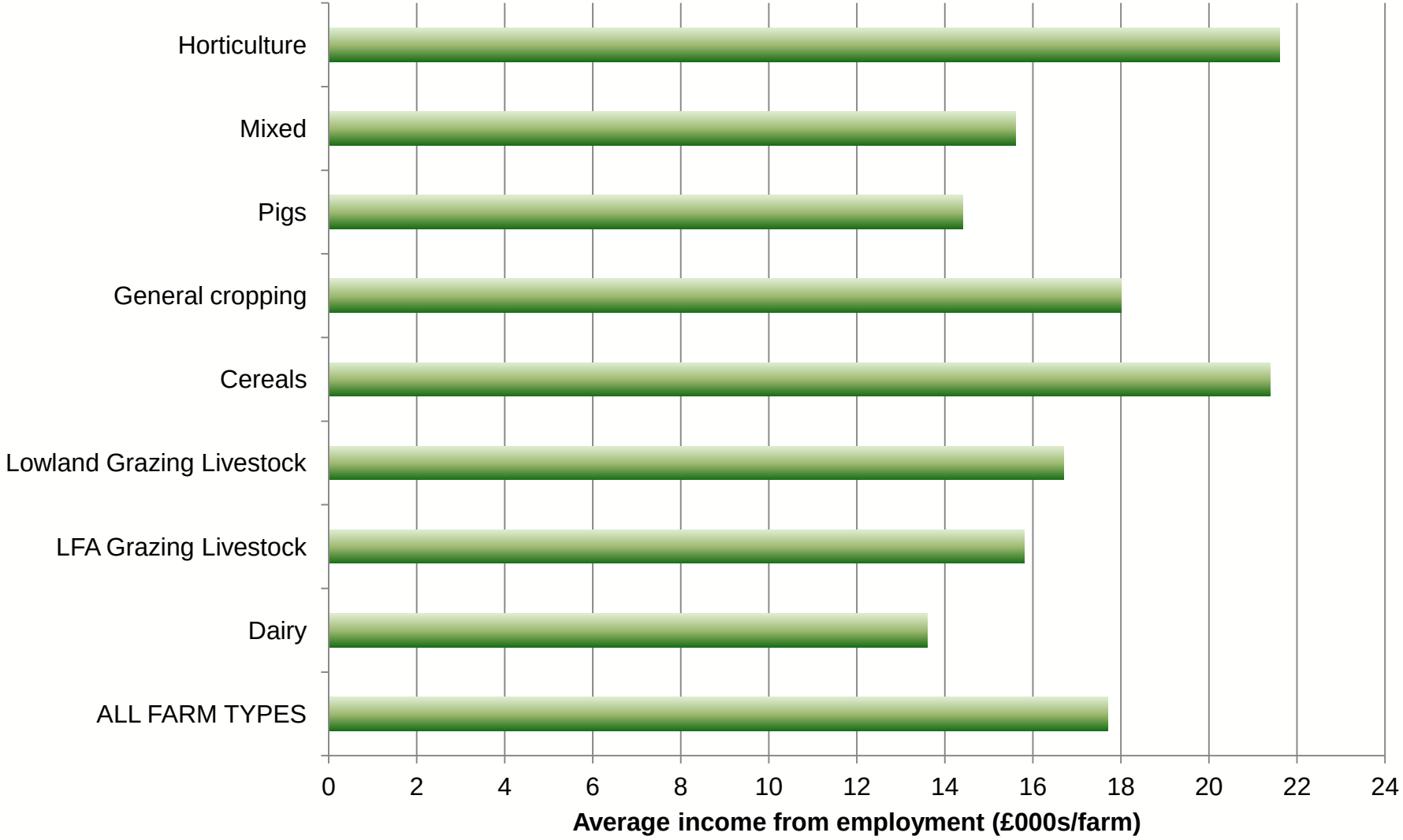
Distribution of farms according to proportion of Farm Business Income coming from diversification — England 2009/10



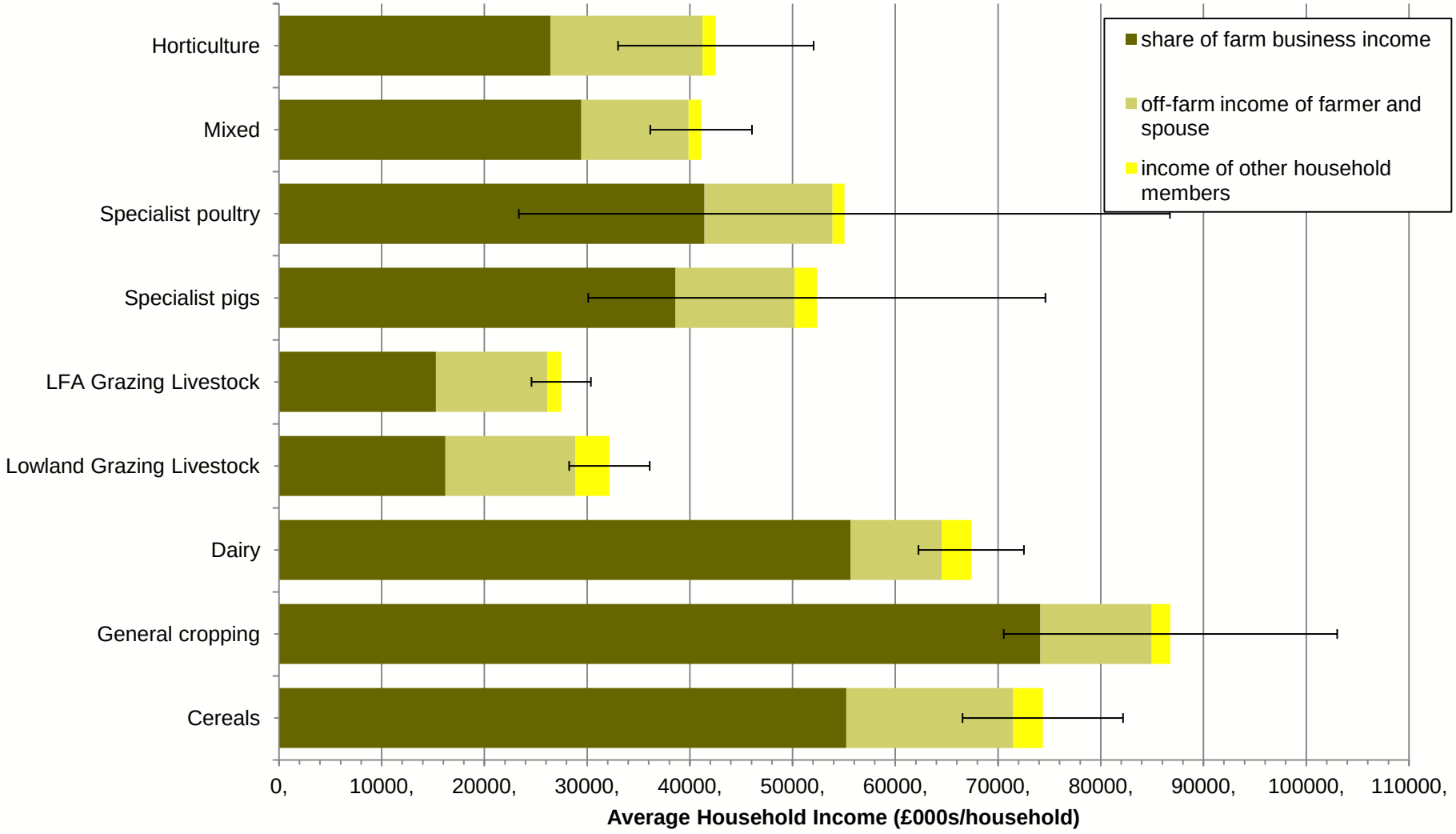
Source: Farm Business Survey

Average Income from off-farm employment and self-employment, England 2009/10

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Average income of principal farmers' households by farm type, with 95% confidence limits for the overall average income, England 2008/09



Farm business income, net worth, total assets and drawings by principal farmer household income quartiles, England average 2006/07-2008/09

	Farm household income range (£000s)	Median FBI (£)	% of farms with negative FBI	Median drawings (£)	% of farms where FBI exceeds drawings	Median net worth (£000s)	Median total assets (£000s)
Quartile							
Bottom	<20	4,100	36%	14,300	13%	409	484
Second	20 <37	20,600	3%	21,500	42%	501	545
Third	37 <64	40,300	3%	30,900	68%	694	737
Top	>64	86,400	1%	54,500	84%	1,113	1,263
All farms		27,900	11%	26,200	52%	597	677

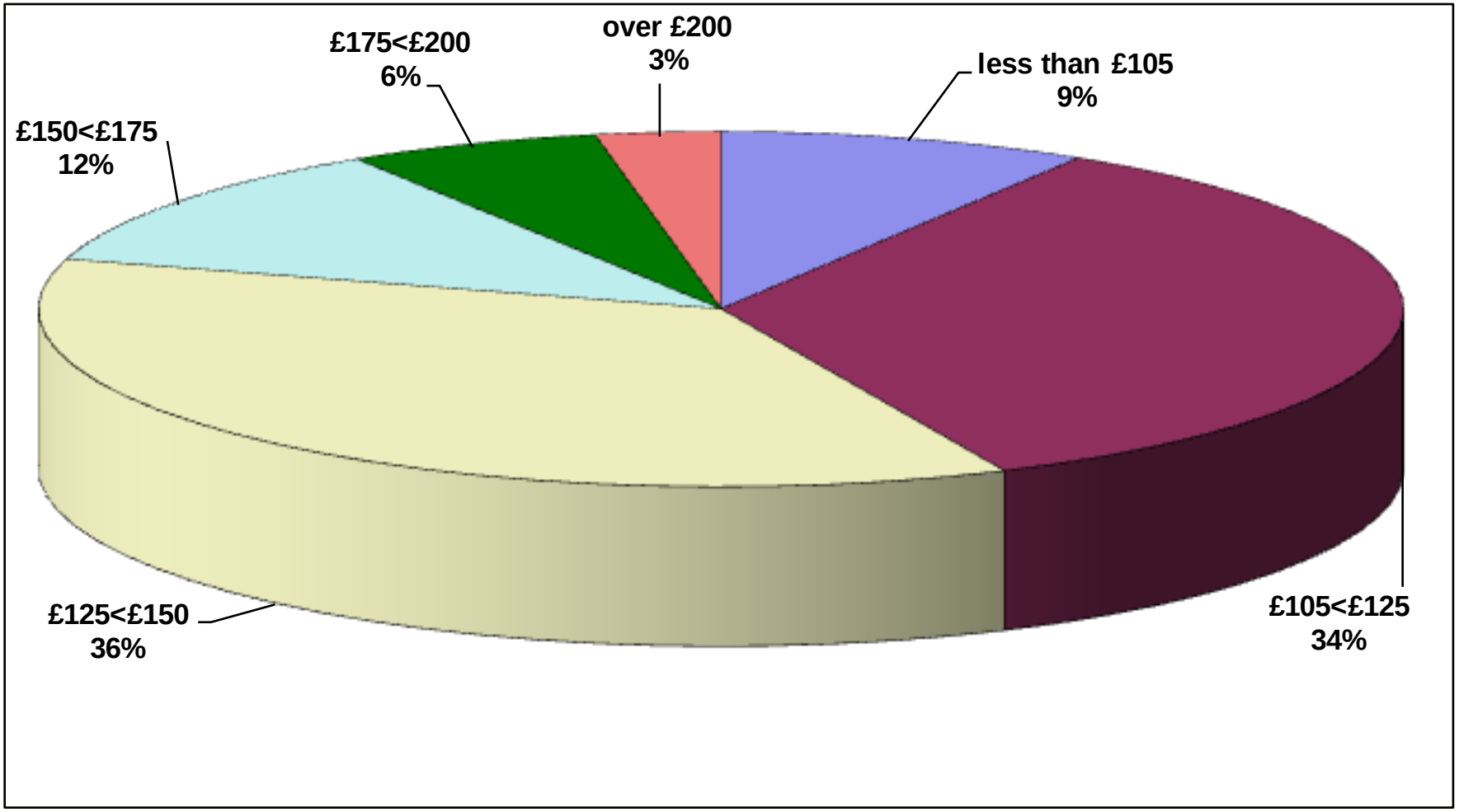
- For those in the bottom quartile, the associated farm business had a median net worth of over £0.4m;
- Those in the top quartile had a median net worth of £1.1m.

Farm performance: cereal farms

- High performers are:
- Roughly same farm size (but more land is owned)
- Have higher output across all the cost centres
- Have lower variable and fixed costs per hectare

Cereal Farms		Low performance	High performance
Total area farmed - hectares		237	216
		£/ha	£/ha
Output from Agriculture		674	797
of which	crops	550	708
	livestock	69	35
Variable costs		447	355
Gross Margin		228	442
Fixed costs		488	332
Agriculture share of Farm Business Income		-260	110
Agri-environment share of Farm Business Income		26	44
Diversified share of Farm Business Income		25	90
SPS share of Farm Business Income		185	211
Farm Business Income/ha		-24	454
Farm Business Income £ per farm		**-5,794**	**98,100**

Proportion of wheat produced on basis of production costs (£/tonne) 2009/10

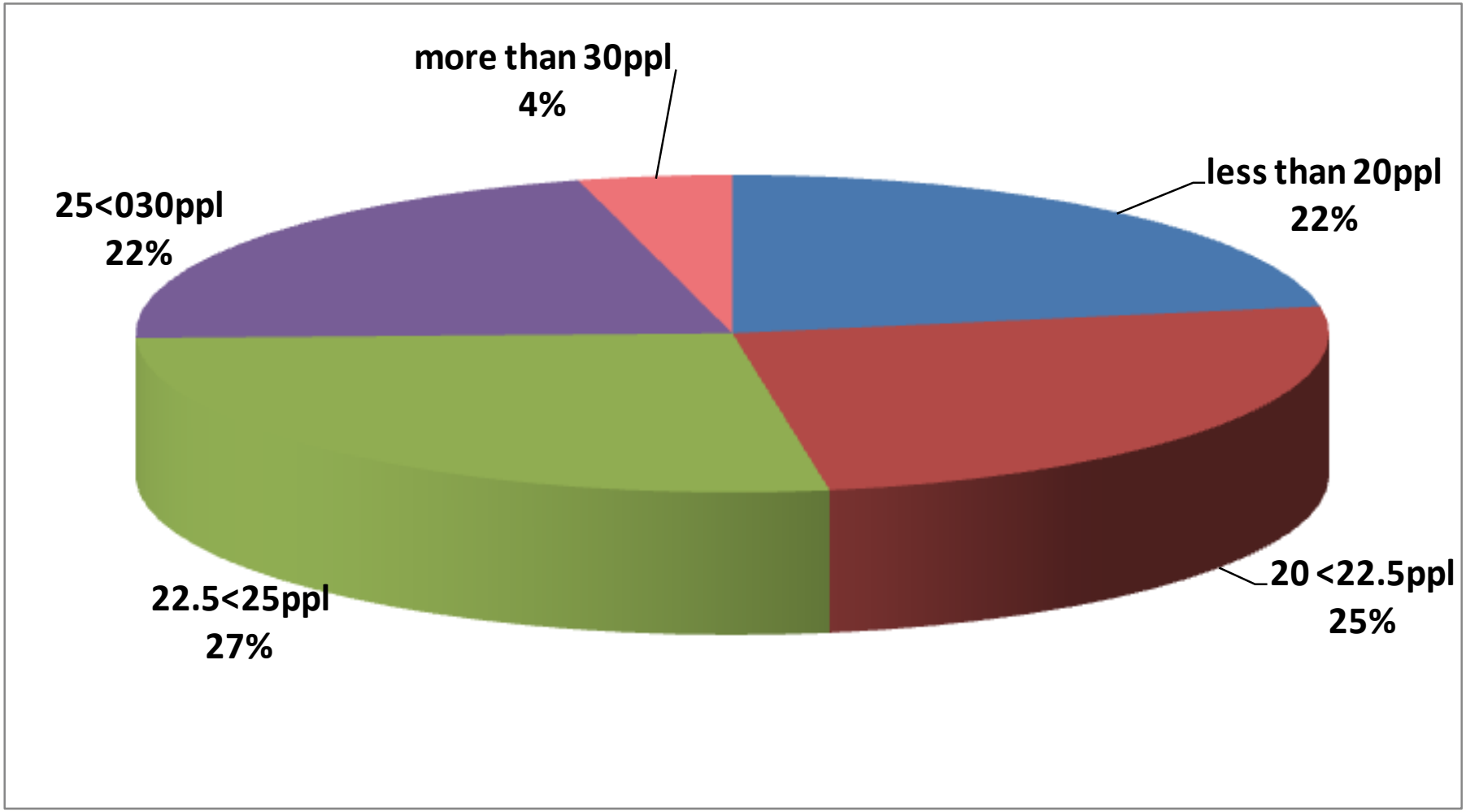


Farm performance: dairy farms

- High performers:
- Have similar output/ha from livestock
- Have substantially lower variable and fixed costs per hectare

Dairy Farms		Low performance	High performance
Total area farmed - hectares		133	118
Number of dairy cows		136	113
		£/ha	£/ha
Output from Agriculture		2260	2133
of which:	crops	151	80
	livestock	2045	2005
Variable costs		1436	919
Gross Margin		824	1214
Fixed costs		1051	640
Agriculture share of Farm Business Income		-227	574
Agri-environment share of Farm Business Incom		21	30
Diversified share of Farm Business Income		48	16
SPS share of Farm Business Income		222	209
Farm Business Income/ha		41	817
Farm Business Income £ per farm		**5,468**	**96,431**

Proportion of milk produced on basis of production costs 2009/10



Farm performance: LFA farms

- High performers have:
- Larger total farmed area
- Lower output from agriculture and SPS
- Have substantially lower variable and fixed costs per hectare

		Low performance	High performance
Total area farmed - hectares		82	197
		£/ha	£/ha
Output from Agriculture		432	250
of which:	crops	25	6
	livestock	392	235
Variable costs		313	113
Gross Margin		119	137
Fixed costs		337	114
Agriculture share of Farm Business Income		-218	23
Agri-environment share of Farm Business Income		40	73
Diversified share of Farm Business Income		0.38	9.24
SPS share of Farm Business Income		129	110
Farm Business Income/ha		-49	215
Farm Business Income £ per farm		**-4,048**	**42,382**

Farm performance: Lowland Grazing Livestock Farms 2009/10

- High performers:
- Have larger area and lower stocking rate
- Lower output from agriculture
- Considerably lower fixed and variable costs per hectare

Lowland Grazing Livestock	Low performance	High performance
	2009/10	2009/10
Total area farmed - hectares	95	125
Stocking rate LU/ha	1.0	0.6
	£/ha	£/ha
Output from Agriculture	591	366
of which: crops	40	23
livestock	493	314
Variable costs	383	135
Gross Margin	208	231
Fixed costs	420	183
Agriculture share of Farm Business Income	-212	48
Agri-environment share of Farm Business Income	24	50
Diversified share of Farm Business Income	27	59
SPS share of Farm Business Income	158	168
Farm Business Income/ha	-2	325
Farm Business Income £ per farm	**-232**	**40,667**

Farm business performance: consistency over time – cereal farms

For a panel of over 250 cereal farms in the FBS for the 3 years from 2007/08:

- 37% of farms remained in the same quartile for all 3 years;
- 10% of farms were in the high performance quartile for all 3 years, with 22% in this quartile for at least 2 years; and
- 7% of farms were in the low performance quartile for all 3 years, with 19% in this quartile for at least 2 years.

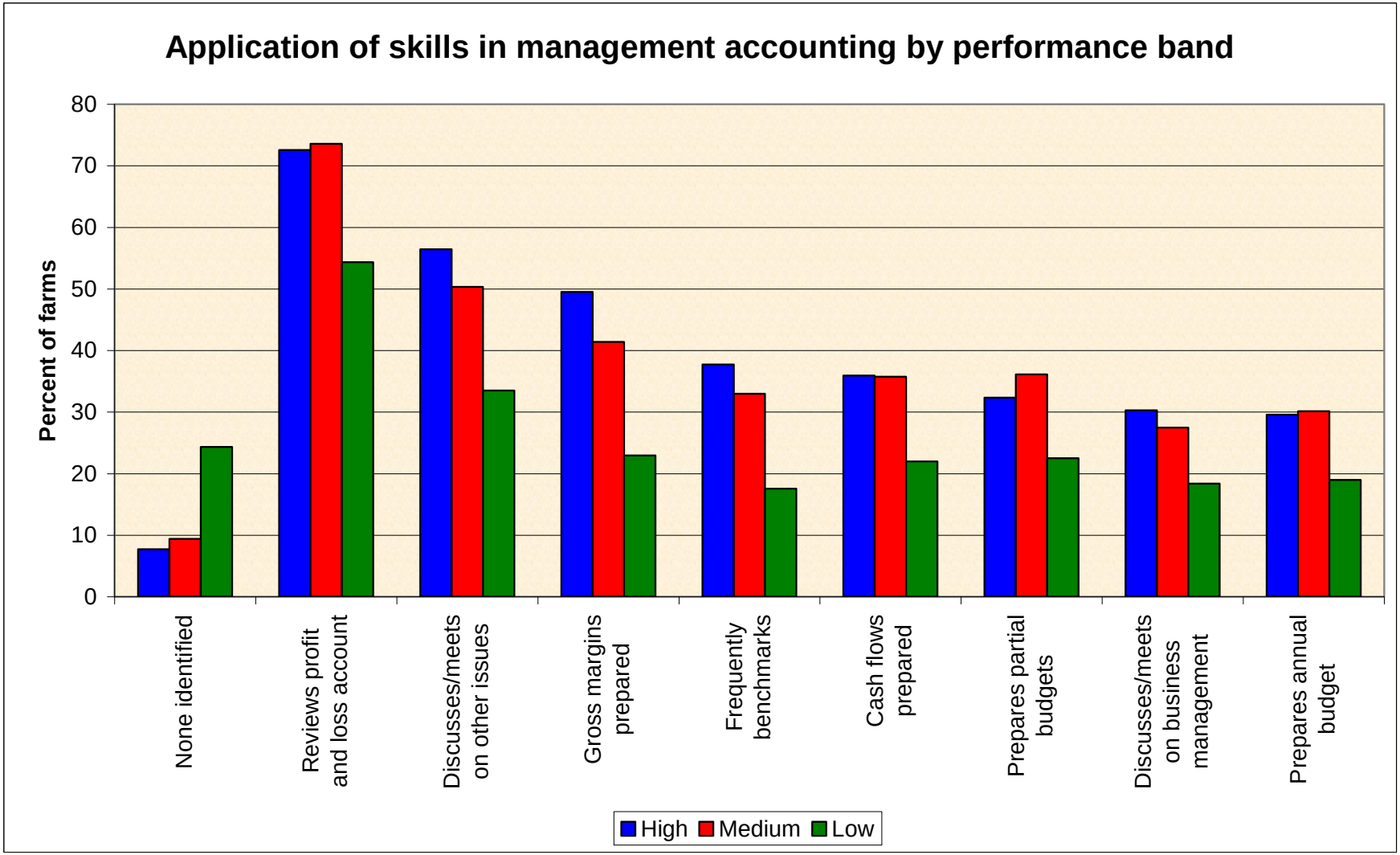
Farm business performance: consistency over time – dairy farms and conclusion

- For a panel of over 200 dairy farms in the FBS since 2007/08:
  - 50% of farms remained in the same quartile for all 3 years;
  - 15% of farms were in the high performance quartile for all 3 years, with 23% in this quartile for at least 2 years; and
  - 11% of farms were in the low performance quartile for all 3 years, with 19% in the quartile for at least 2 years.
- The majority of the top quartile remained there over the three years – suggesting that a dairy farm's performance is driven by consistent factors and less influenced by prevailing conditions.

Business Management Practices Module

- This module was run in 2007/08 FBS and collected data on practices, techniques, skills and qualifications that farmers use to make business decisions;
- Results showed that farms that use skills in management practice are more likely to be those in the high performing group;
- The population of farms with advanced educational attainments and skills in management accounting, risk management, computers and IT and marketing, showed statistically significant increases in the population of high performing farms.

Application of Skills in Management Accounting by Economic Performance



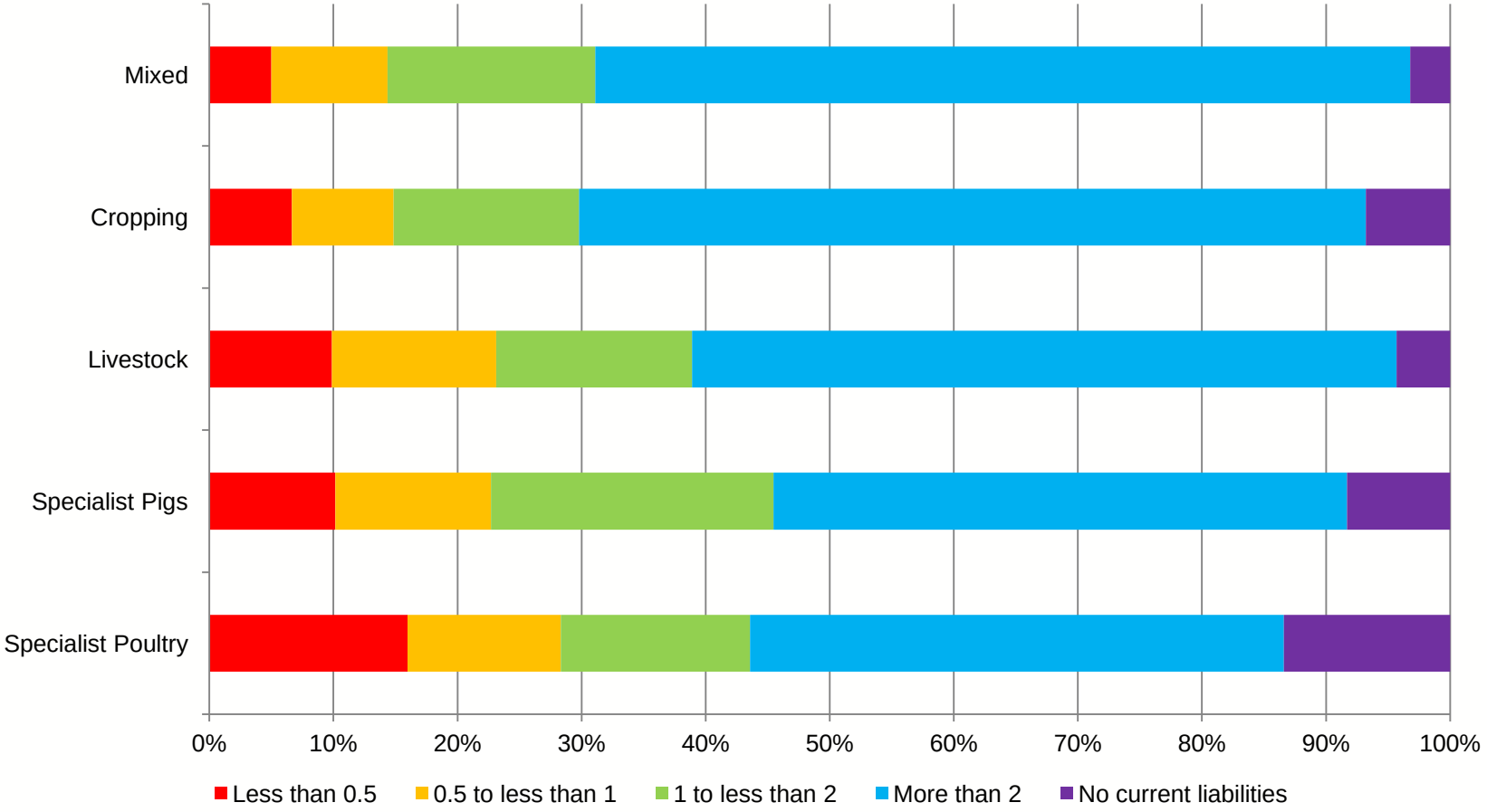
Source: Farm Business Survey, England 2007/08

Liabilities and gearing (gearing = debt / equity) *i.e. total external liabilities / net worth*

- Average total external liabilities = £133,000 at the start of 2010/11
- Approximately 50% of farms have less than £50,000 borrowings
- 20.0% owe over £250,000; 2.3% owe over £1m.
- 11% of low performing farms had a gearing ratio of over 100% at the start of 2010/11, compared to just 2% of high performing farms.
- On average, owner-occupied farms have the lowest gearing; tenanted farms have the highest

Short term financial position at the start of 2010/11

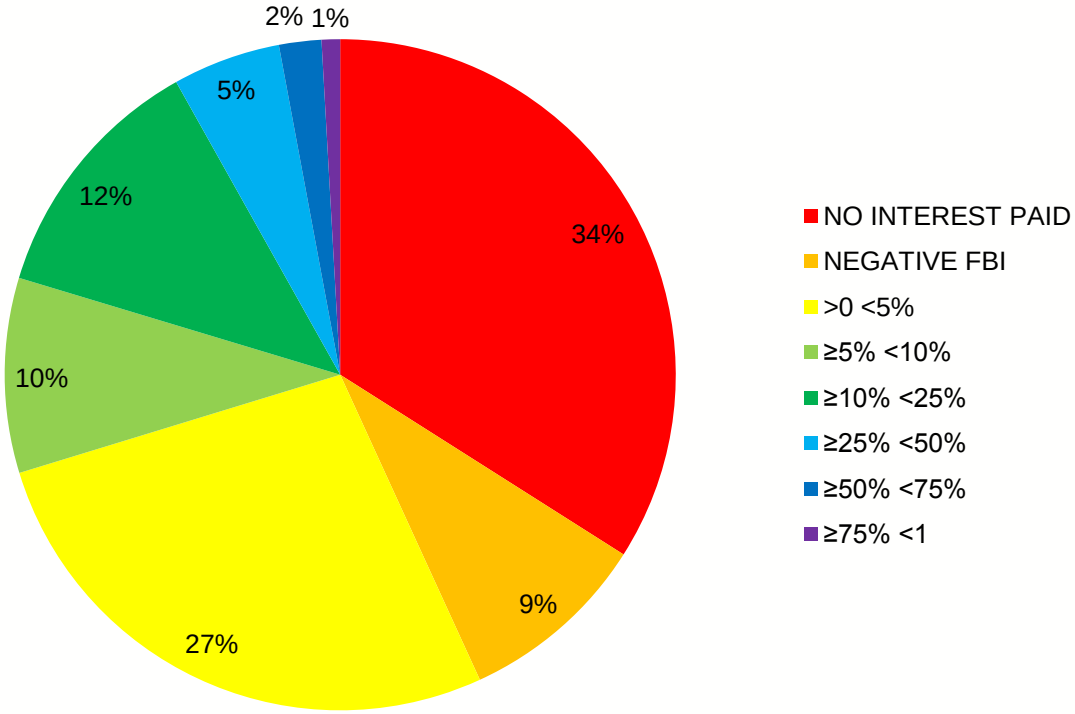
Liquidity: current assets/current liabilities (including overdraft)



Interest payments during 2009/10

The average rate of interest paid as proportion of FBI (including interest) in 2009/10 , excluding farms that paid no interest and/or that have negative FBI, was 12%.

This is fairly consistent across tenure type and most farm types (except specialist poultry where the average is 18%). If base rates inc prob also = lower sterling, therefoe duole impact



Return on Capital Employed

We are currently designing a measure of ROCE to look at profitability. This allows consideration of efficiency of capital use and the impact of debt.
Our research and the academic literature shows that debt (particularly where represented by a high gearing ratio) is bad for efficiency.

However, there are farms borrowing sensibly and strategically and we would expect borrowing to invest to encourage efficiency and profitability.

ROCE = Earnings before interest and tax / capital employed.

Earnings before interest and tax = all farm income, including that from diversified sources, net of all costs and after charging imputed rent on owned land and a charge for unpaid labour of farm workers excluding principal and spouse. *Capital employed* = tenant type capital – current liabilities (excluding overdraft)

	Gearing					
ROCE	Negative	≥0 <0.5	≥0.5 <1	≥1 <2	≥2	All
Negative	18%	12%	19%	29%	20%	13%
≥0 <0.1	13%	35%	22%	29%	34%	34%
≥0.1 <0.2	12%	30%	27%	17%	16%	29%
≥0.2 <0.4	44%	18%	23%	19%	23%	19%
≥0.4 <0.6	8%	3%	3%	0%	7%	3%
≥0.6 <1	0%	1%	1%	4%	0%	1%
≥1	6%	1%	4%	2%	0%	1%

FBS farmer segmentation – overall assessment

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Custodians (14%)	Lifestyle choice (7%)	Pragmatists (53%)	Modern family business (21%)	Challenged enterprises (4%)
Environmental focus in activities, but with realisation of the need for profit. These are linked in some cases through financial support for environmental work. Lowland grazing farms are managed more traditionally and emphasis on family. Profit not always main driver – lower use of business management skills / advice	Importance of additional non-farm income and farming towards retirement and as a hobby featured. Aspects linked to having an environmental focus	Hard group to define with variation within quite a big proportion. Some positive about the future, others more cautious. Maintaining a business-focus even through assured succession is mixed	Continued investment (in both business and environment) with a focus on planning and improvement leading to optimism for future and plans for expansion. Large business size, open to farm and non-farm opportunities, environmentally aware for financial and sustainability reasons, forward-looking in terms of using new advice	Low prices, pressure from supermarkets, long hours, financial and health difficulties together with succession issues. Lowest SP and lowest focus on business practices

FBS farmer segmentation – qualitative statements (the farmer as agent of change)

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Custodians (14%)	Lifestyle choice (7%)	Pragmatists (53%)	Modern family business (21%)	Challenged enterprises (4%)
Family, farm and environment inseparable *Definite pride in farming heritage - do it for own farm enhancement rather than being forced to for schemes etc. likes to think that work enhances farm, and is business focussed alongside this.* *Very proud of farming heritage and feels like a custodian of the land*	*Left city career to farm - only been possible because of substantial non farm income.* *Provides enjoyment and different to other businesses individual owns.* *Farm is too small to make a living and farmer has a part-time job* *Farmer past retirement age and has run the business down in recent years*	*Trying to become more profit focused but farm more important than profit.* *Continues farming because son wants to take over in due course, would not farm if that were not the case.* *too old to change system no successor to make modern changes for*	*Very much business focussed, inherited from parents and expects children to do the same.* *Committed to making farm profitable to preserve it for next generation, have had to concentrate on value added in order to do so* *just paid a lot of money for new land!*	*Years of low pig prices haven taken their toll on farm and farmer. Recent increase in prices have slightly lifted farmers mood but still pessimistic about future* *Last generation of family farm. Very disillusioned* *Farmer wishes to retire but is finding it hard to break away from the farm*

Example of interpretation – where the farmer characteristics matter: business management practices

No PC / PC non-business / PC occasional business use:
Custodians: 40%; Lifestyle Choice: 44%; Pragmatists: 24%; MFB: 10%; Challenged: 67%
Interpretation: Challenged do not have the capacity (time) to utilise IT, MFBs see it as a essential part of the business

Technical advice:
None: Challenged 13% (others 3-4%)
Informal options e.g. media, demonstrations, discussion groups
Over a quarter of Custodians and Challenged but only 7% MFB
Paid for advice - nearly half MFB, 17% Custodians, 13% Challenged

Business management advice:
Informal options e.g. media, demonstrations, discussion groups
Over a quarter of Custodians (27%) but under a fifth of MFB (17%)
Paid for advice – over a quarter of MFB (26%), 14% Lifestyle choice, 4% Challenged

Interpretation: Challenged and Custodians prefer informal options, MFBs know what they need and pay for it

What does segmentation mean in contexxt of CAP reform, for example?

Identifies the **characteristics of those businesses** where the management capacity is under pressure and future ambitions are limited:
• Challenged has lowest percentage in cereals (6%) and highest in dairy (24%)

Identifies the **characteristics of those businesses** where the management capacity is strong and future ambitions are positive:
• MFB have highest horticulture (15%) and general cropping (15%) and lowest LFA grazing (6%)

Identifies those businesses where the environmental assets are important:
• Custodians have highest LFA grazing (23%)

Highlights the importance of: **Off-farm income; Tenure structure; Succession** in longer-term business-sustainability. The underlying characteristics of the farmer will help explain business and environmental performance and the factors influencing change.

Additional sources of data:

- Farming Statistics (York) – market data, June survey, Monthly Farming & Food Brief, Agriculture in the United Kingdom (AUK)
- Agricultural and Horticultural Development Board (HGCA, EBLEX, DairyCo, BPEX, Potato Council, Horticultural Development Company)

Rural Business Research On-line http://www.farmbusinesssurvey.co.uk/index.html

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