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ICT usage on Farms

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Outline

- National Farm Survey data on ICT usage on farms
- Analyse trends
 - The rate of usage – by farm type
 - The main purpose
 - How we compare internationally



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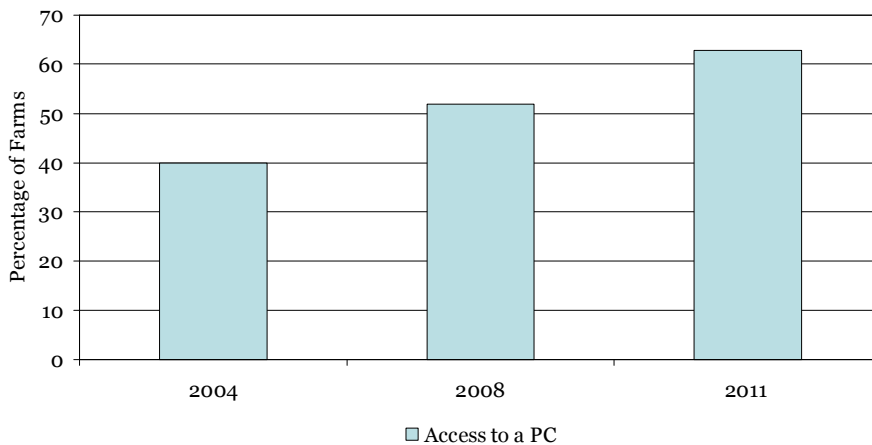
Why?

- Significant investment in ICT tools by DAFM, Teagasc etc.
- Are farmers using them, is training required etc?
- Proxy for “technology adoption” how do we compare internationally



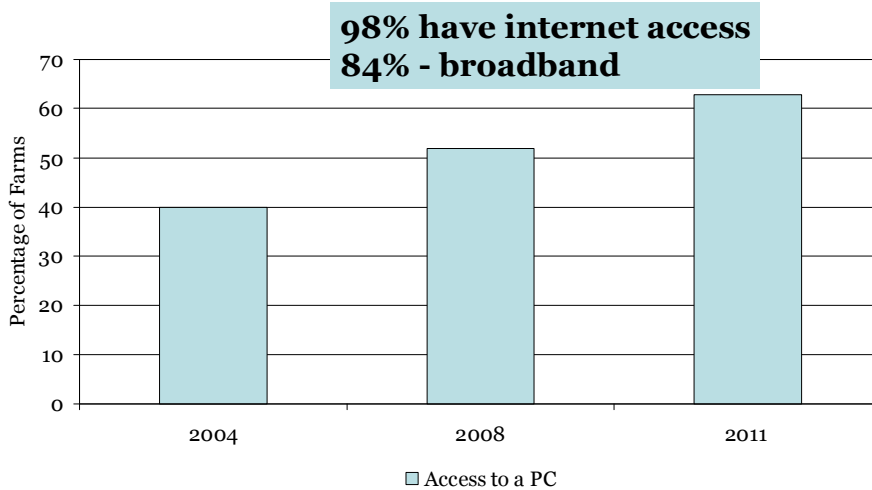
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Trends in Computer Usage



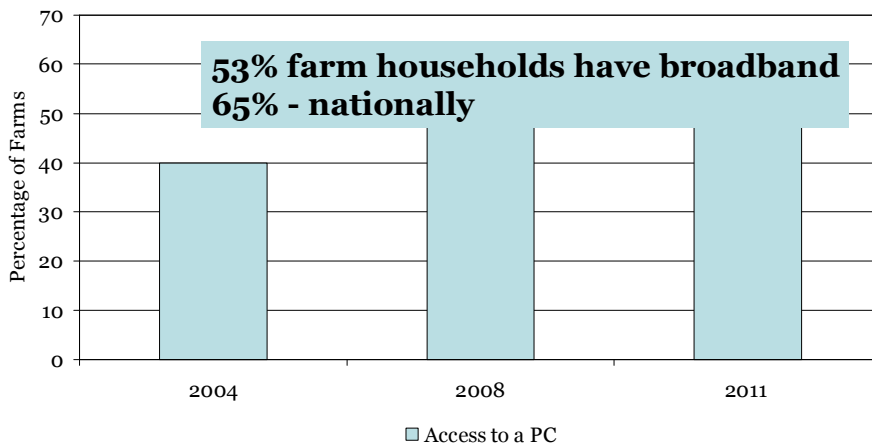
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Trends in Computer Usage



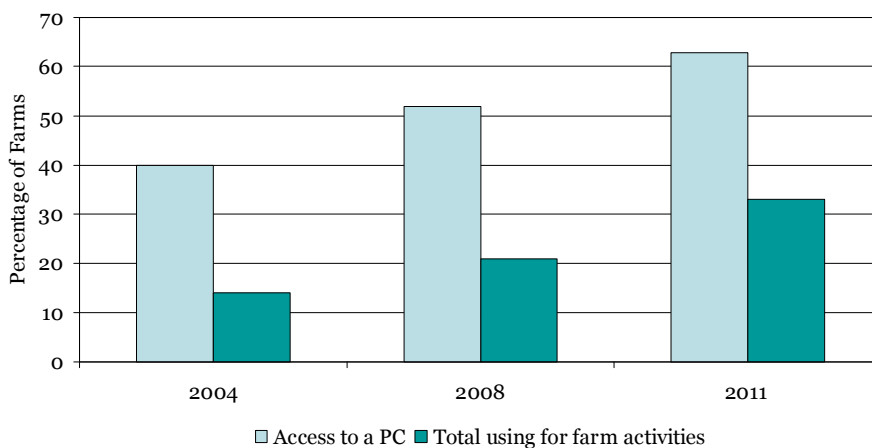
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Trends in Computer Usage



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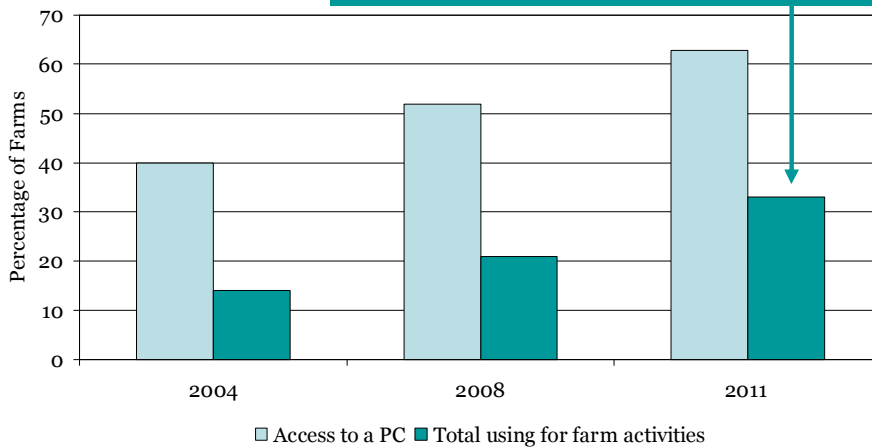
Trends in Computer Usage



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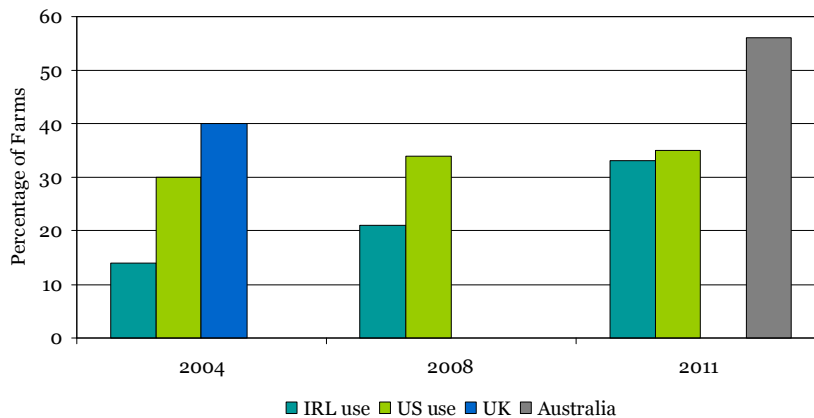
Trends in Computer Usage

Only 50% of cases farmer is user



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How do we compare internationally?

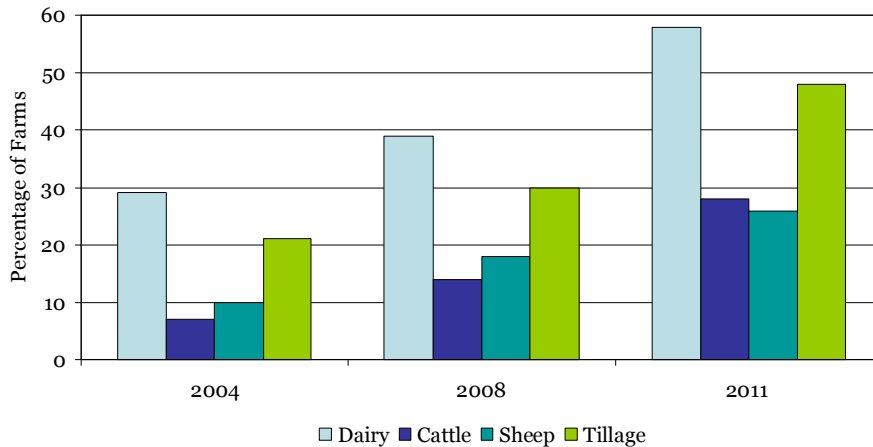


Source: NFS & USDA (various years)



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What types of farmers use computers?



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Factors affecting usage

- What affects usage for farm activities?
- Characteristics of the farmer (age, education, household composition etc) characteristics of the farm (size, system, income)
- Usage is binary participation decision – probit model
- Why?
 - Who is not using computers?
 - Target them for technology promotion
 - Consider the development of ICT based tools



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Probit Results

Dependent Variable (n=)	Farm Usage Decision	
	Co-eff	Marg'l Effect
Constant	-1.62	
Dry-stock enterprises	-1.485*	-0.21
Tillage	-0.60**	-0.07
Farm Income €'000	0.004*	0.008
Income per hectare	0.09	
Farmer's Age	-0.122*	-0.02
Farmer's Age Squared	0.02	
Spouse Present	1.67*	0.28
Young Adults present	1.12**	0.14
Off-farm job	0.97	

* Significant at the 99% confidence level & ** significant at the 95% confidence level



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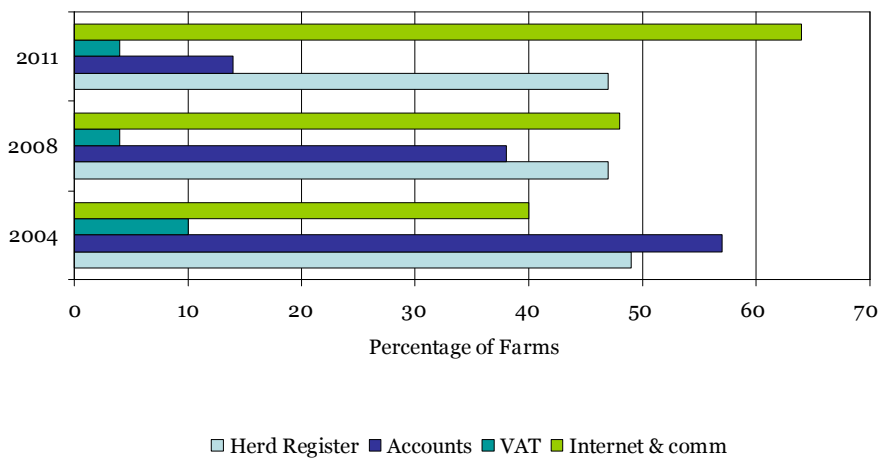
Discussion of Results

- Larger, younger more profitable dairy and tillage farmers more likely to use PCs for farm business
- The presence of a spouse and young adult children in the household also impact on usage
- Consistent with other research on technology adoption and findings in the international literature
- Should non-users be targeted?



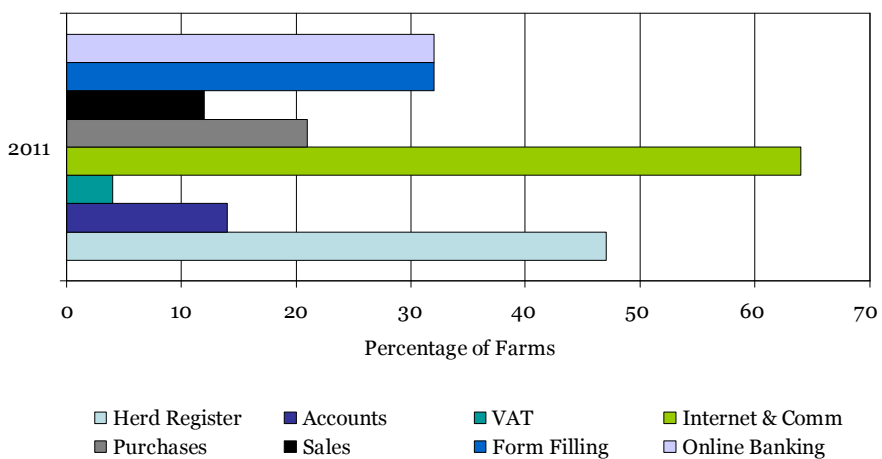
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What are computers used for? - main usage



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Main Usage in 2011



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Hierarchy of uses

- Internet & communication
 - No further information on what form of internet usage
 - Lowest form of technology usage?
- Hierarchy of uses possible – use an ordered probit
- Results likely to mirror usage – larger more profitable farms using higher impact tools
- Is it contributing to profit



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Where from here?

- Important to report data on ICT usage in farming
 - Providers of ICT tools
 - Trainers
 - As an indicator of technology adoption
- In terms of the characteristics of users – no great surprises
- Could we examine the impact on profit
 - “grouped technologies”



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