The Common Agricultural Policy and The Farm Households' Off-farm Labour Supply

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Some Objectives

Identify the relationship between farm and household characteristics and off-farm employment decisions in Ireland among married couples in particular.

Which microeconomic variables are associated with off-farm employment in terms of participation and hours of work?

Methodology

Methodology

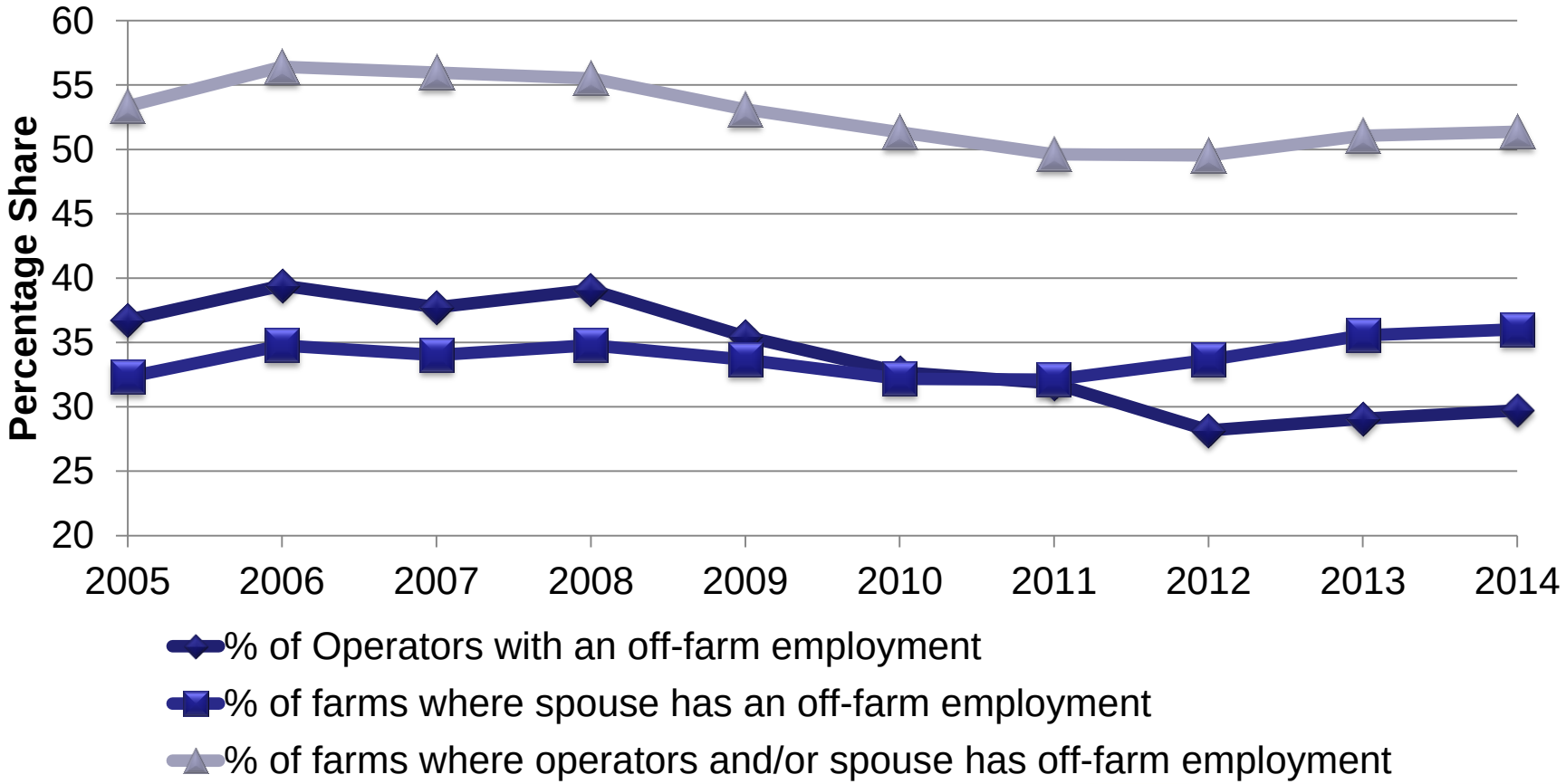
- Neo-Classical Labour Supply Model
- Multinomial Logit Model
- Four Off-Farm Work Strategies
  1. only the farm operator works off-farm,
  2. only the spouse works off-farm,
  3. both work off-farm
  4. neither operator or spouse works off-farm.

Data

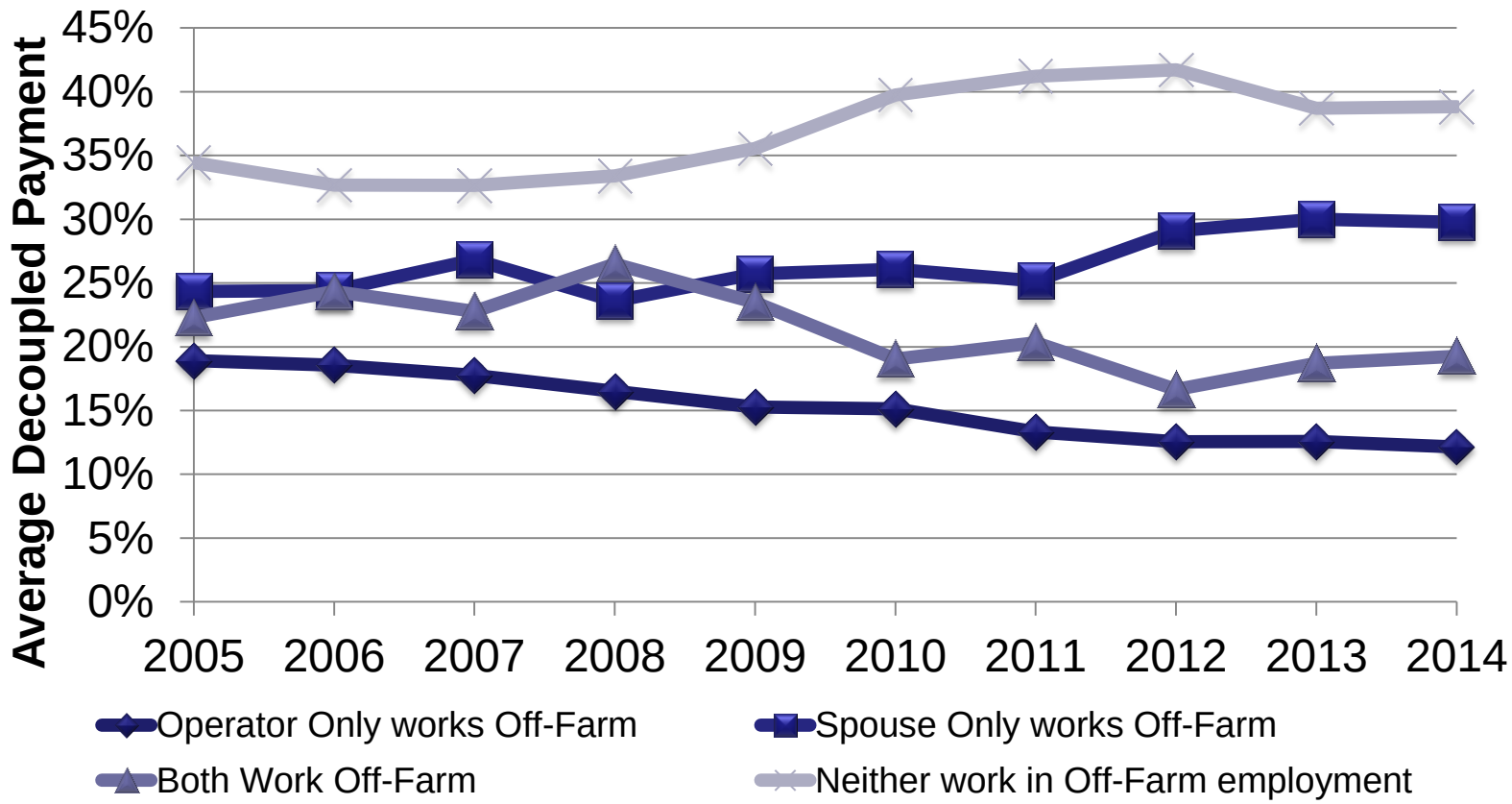
Data

- Teagasc National Farm Survey
- Average sample size of 1,058 farms per year (2005-2014)
- Average sample size of 775 farm households per year (2005-2014) where a married couple are heading the household
- Unbalanced panel – rate of attrition is low over ten year period
- Provide Irish farm income data to the EU Commission in Brussels (FADN)
- Weights based upon system of farming and size of the farm
- Provides micro-data on off-farm employment data for the farm holder and spouse where relevant

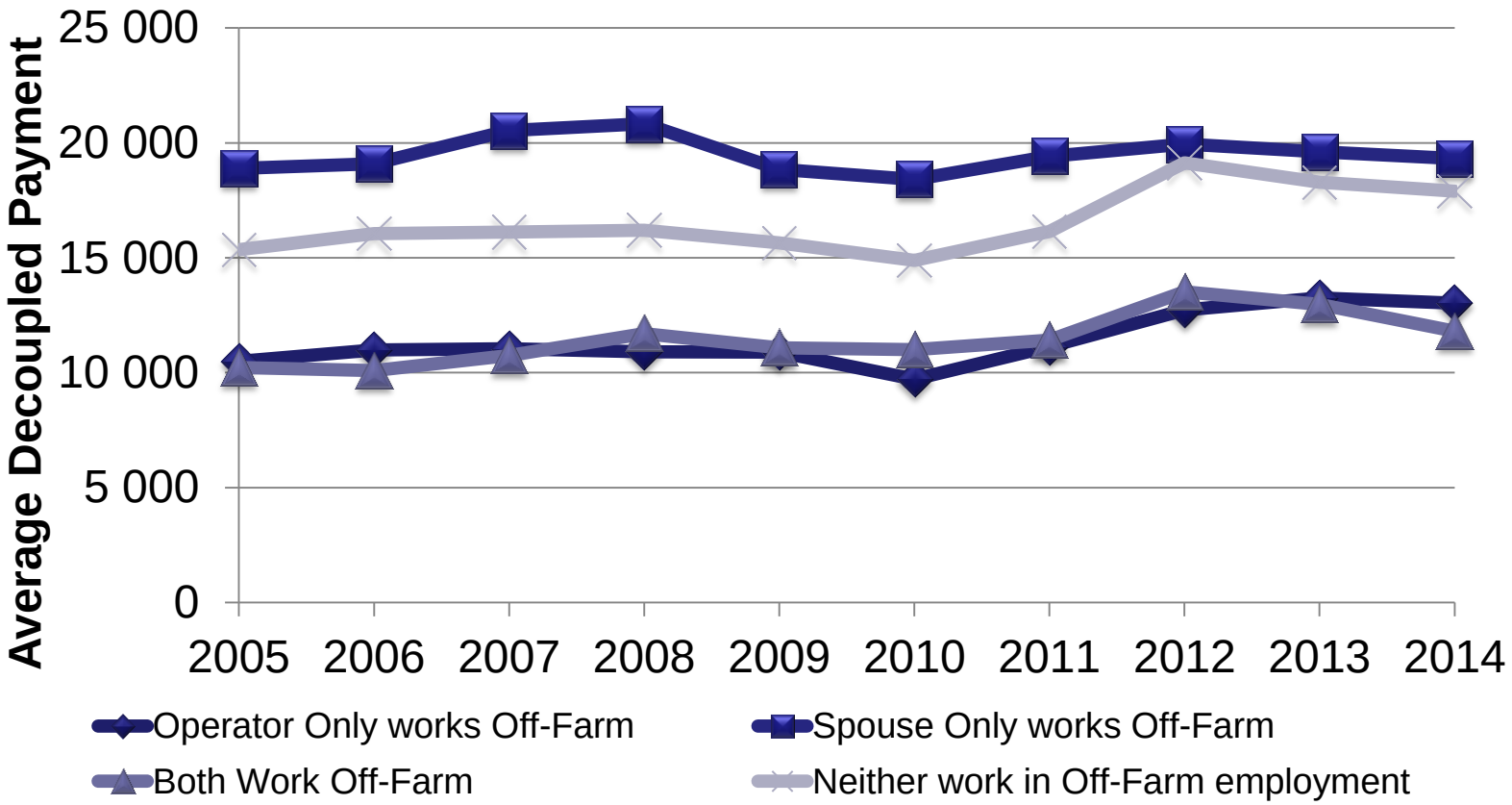
Off Farm Employment Rates in Ireland 2005-2014 Teagasc National Farm Survey



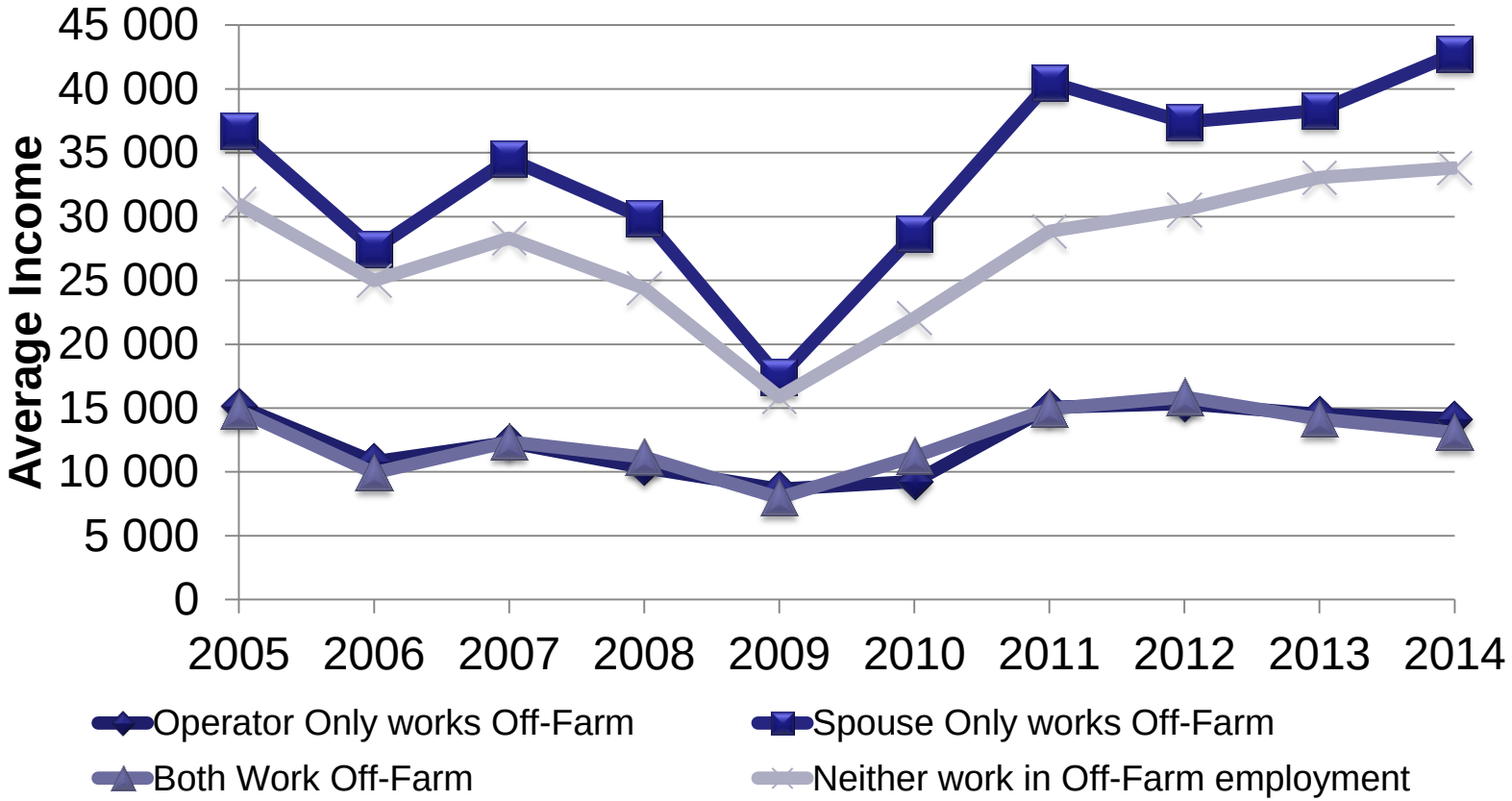
Four Off-Farm Employment Strategies 2005-2014



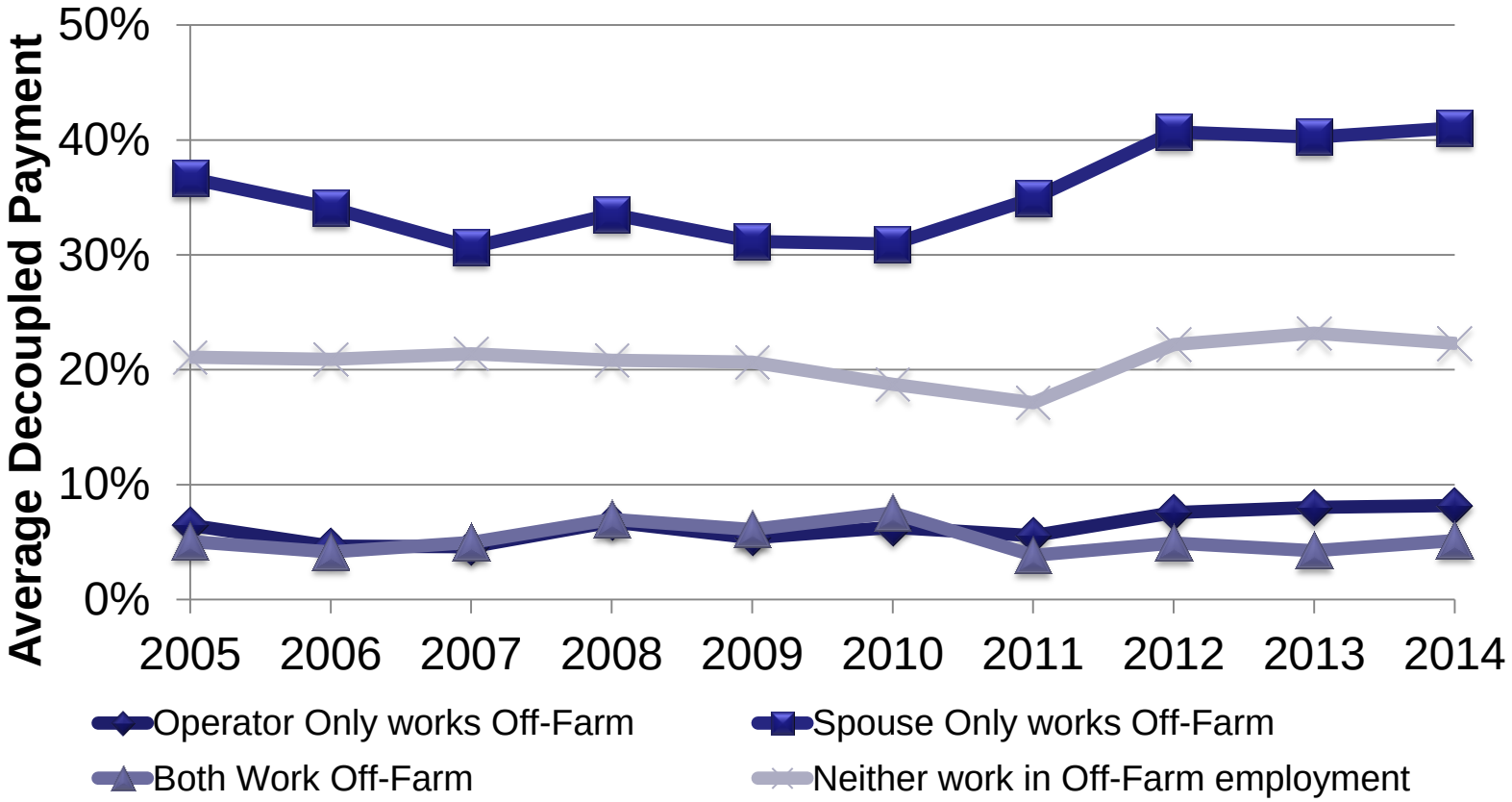
Average Decoupled Payment of Four Off-Farm Employment Strategies 2005-2014



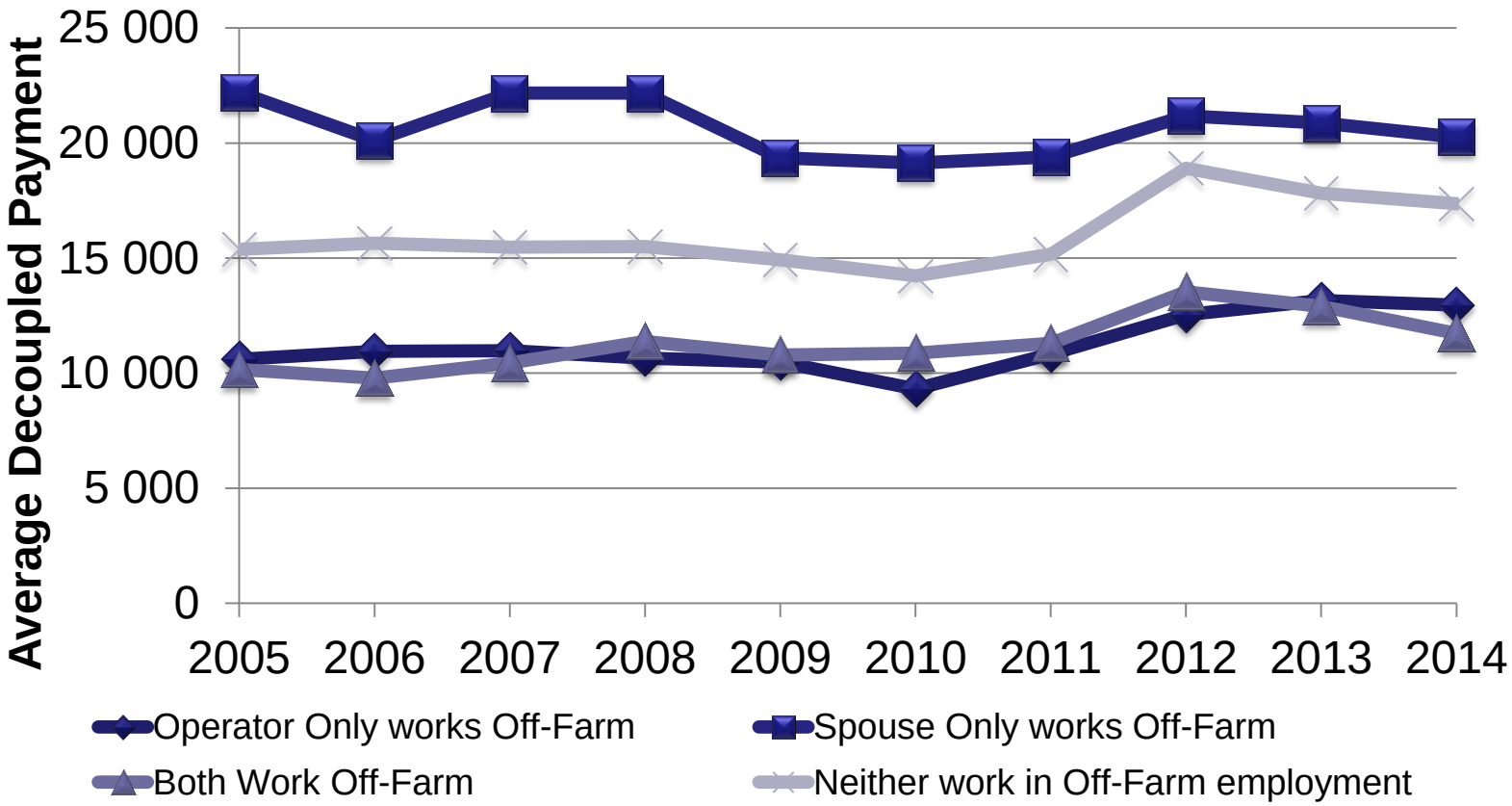
Average Family Farm Income of Four Off-Farm Employment Strategies 2005-2014



Share of Specialist Dairy Farms within each of the Four Off-Farm Employment Strategies 2005-2014



Average Decoupled Payment of Four Off-Farm Employment Strategies 2005-2014 [Excluding Specialist Dairy Farms]



Econometric Results

Results for Off-Farm Employment Multinomial Logit Analysis

Variables	Strategy = Operator Only Works Off-Farm	Strategy = Spouse Only Works Off-Farm	Strategy = Both Operator and Spouse Works Off-Farm
OperatorAge	0.212*** (0.03)	0.209*** (0.03)	0.218*** (0.03)
OperatorAge squared	-0.00293*** (0.00)	-0.00284*** (0.00)	-0.00352*** (0.00)
Specialist Dairy (0,1)	-1.343*** (0.13)	0.0131 (0.07)	-1.634*** (0.12)
UAA (ha)	-0.0227*** (0.00)	-0.00399*** (0.00)	-0.0138*** (0.00)
Number of Livestock Units Per UAA	-0.647*** (0.08)	-0.0626 (0.06)	-0.715*** (0.08)
Number of young in HH	-0.0346 (0.05)	-0.00781 (0.04)	-0.259*** (0.05)
Household Size	0.0379 (0.04)	-0.0630** (0.03)	0.113*** (0.04)
BMW NUTS 2 Region (0,1)	0.508*** (0.09)	-0.0700 (0.06)	0.378*** (0.08)
Decoupled Payment (10,000s)	-0.142** (0.06)	-0.0252 (0.03)	-0.348*** (0.05)
2005	Excl.	Excl.	Excl.
2006	0.0529 (0.17)	0.147 (0.13)	0.294* (0.17)
2007	0.123 (0.17)	0.300** (0.13)	0.392** (0.17)
2008	0.131 (0.17)	0.233* (0.13)	0.717*** (0.17)
2009	-0.101 (0.18)	0.182 (0.13)	0.399** (0.17)
2010	-0.266 (0.18)	0.129 (0.13)	0.0525 (0.17)
2011	-0.344* (0.18)	0.0278 (0.13)	-0.0530 (0.17)
2012	-0.0553 (0.19)	0.272** (0.13)	0.269 (0.18)
2013	0.126 (0.19)	0.470*** (0.14)	0.572*** (0.18)
2014	0.135 (0.20)	0.505*** (0.14)	0.618*** (0.19)
Constant	-1.366 (0.91)	-2.256*** (0.68)	-0.0393 (0.70)

Results for Off-Farm Employment Multinomial Logit Analysis

Variables	Strategy = Operator Only Works Off-Farm	Strategy = Spouse Only Works Off-Farm	Strategy = Both Operator and Spouse Works Off-Farm
Decoupled Payment (10,000s)	-0.143** (0.06)	-0.0236 (0.03)	-0.348*** (0.05)
Operator Age	0.313*** (0.04)	0.228*** (0.03)	0.306*** (0.04)
Operator Age Squared	-0.00382*** (0.00)	-0.00299*** (0.00)	-0.00432*** (0.00)
Specialist Dairy (0,1)	-1.336*** (0.13)	0.00995 (0.07)	-1.621*** (0.12)
UAA (ha)	-0.0225*** (0.00)	-0.00391*** (0.00)	-0.0137*** (0.00)
Number of young in HH	0.0246 (0.06)	-0.0529 (0.06)	-0.698*** (0.08)
Household Size	-0.0213 (0.05)	0.0501 (0.04)	-0.141*** (0.05)
Number of Livestock Units Per UAA	-0.639*** (0.08)	-0.143*** (0.03)	-0.0506 (0.05)
BMW NUTS 2 Region (0,1)	0.525*** (0.09)	-0.0590 (0.06)	0.401*** (0.08)
No. of HH Members with 2nd level education	0.0802 (0.07)	0.160*** (0.05)	0.282*** (0.06)
No. of HH Members with 3rd level education	0.0443 (0.09)	0.103 (0.06)	0.187** (0.08)
2005	Excl.	Excl.	Excl.
2006	0.0388 (0.17)	0.146 (0.13)	0.294* (0.17)
2007	0.125 (0.17)	0.311** (0.13)	0.399** (0.17)
2008	0.108 (0.17)	0.224* (0.13)	0.691*** (0.17)
2009	-0.114 (0.18)	0.184 (0.13)	0.388** (0.17)
2010	-0.286 (0.18)	0.122 (0.13)	0.0325 (0.17)
2011	-0.353** (0.18)	0.0298 (0.13)	-0.0617 (0.17)
2012	-0.0798 (0.19)	0.266** (0.13)	0.242 (0.19)
2013	0.0887 (0.19)	0.458*** (0.14)	0.534*** (0.19)
2014	0.108 (0.20)	0.493*** (0.14)	0.575*** (0.19)
Constant	-3.961*** (1.16)	-2.686*** (0.78)	-2.038* (1.10)

Conclusion

- Decoupled Payments are associated with reduced probability of the farm operator engaging in off-farm employment
- The relationship between decoupled payments and off-farm employment of the spouse is more complex
- Many spouses will tend to make decisions independent of decoupled payment
- Market Income or Coupled Farm Income appears to be associated with reduced probability of the spouse engaging in off-farm employment
  - This may be due to the contribution of the spouse towards farm labour and requires further investigation
- Interesting implications for CAP reform

Thank you for listening

Comments and questions are very welcome