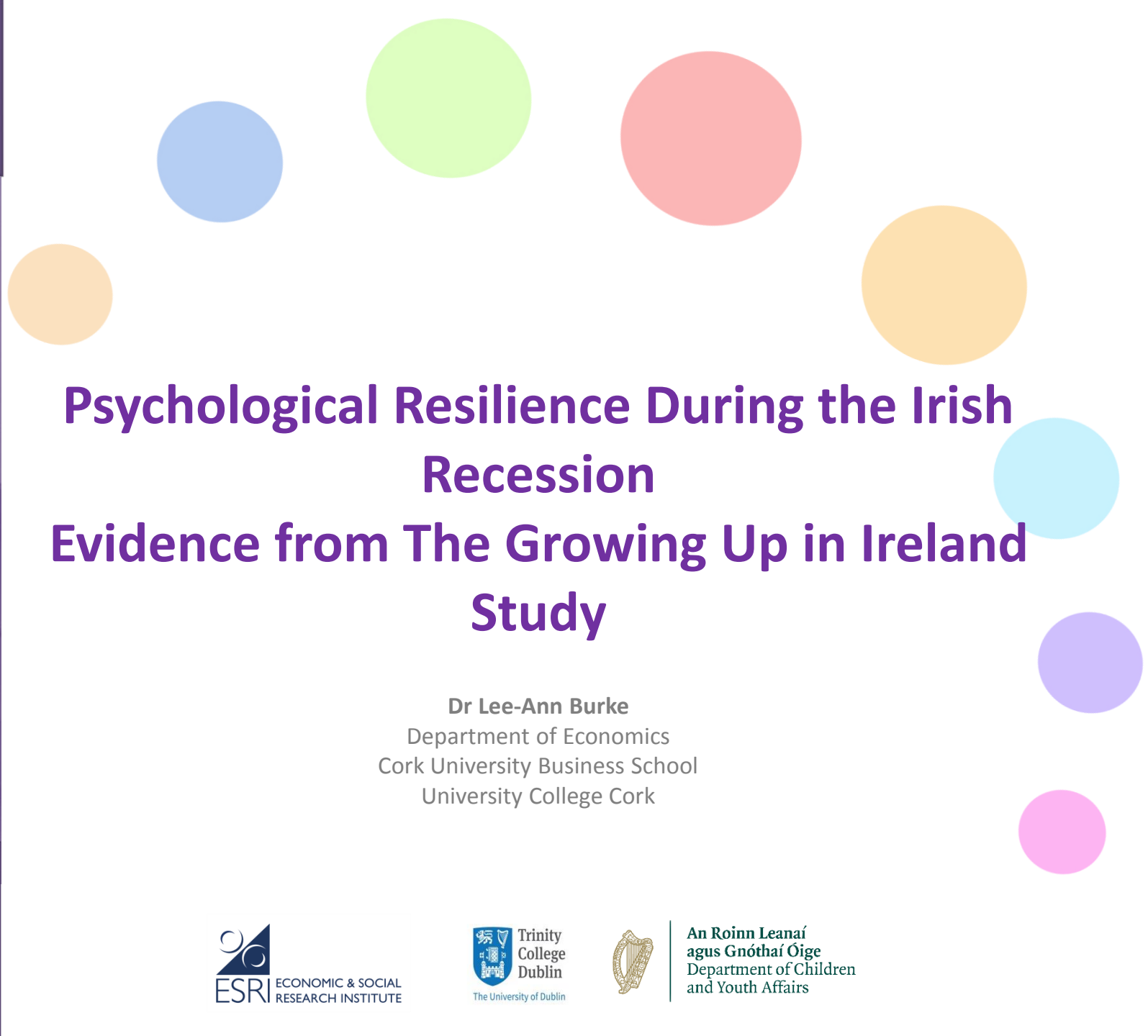




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Psychological Resilience During the Irish Recession Evidence from The Growing Up in Ireland Study

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**An Roinn Leanaí
agus Gnóthaí Óige**
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Background

- Extensive evidence points towards increased levels of poor psychological health during periods of economic depression.
- The GUI provides an excellent opportunity for analysis given its data collection points over time.
 - McKenna et al, financial strain during economic crisis, children found to be at risk.
 - Layte and McCrory (2018) have looked at wave1 and wave2 using structural equation modelling.
 - Stuckler et al (2001) investigate the recession and suicides across 26 European countries.
 - McDaid et al (2013). Increased rates of stress, anxiety, and depression.

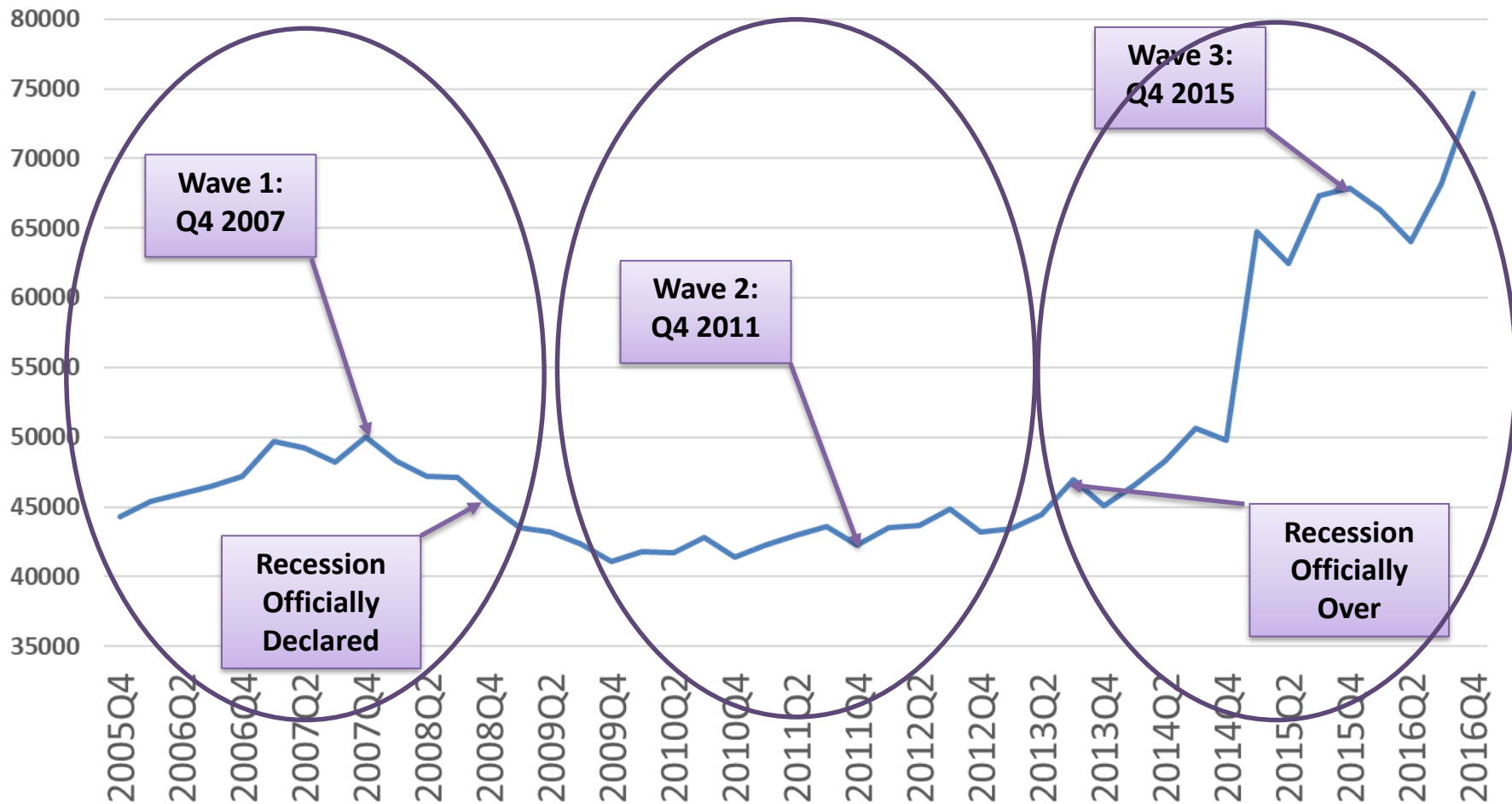


Aim

- The aim is to examine the resilience of both children and adults to difficult economic conditions by analysing patterns of mental health before during and after the recession while controlling for factors such as education, health and location.
- The data being used is the GUI child cohort all 3 available waves
- The panel nature of the data informs the method, xtologit, using a dynamic function.

Time Period of GUI data collection

GDP Current Market Prices (Euro Millions)





Dependent Variables

- **Dependent variable for Children: SDQ (Strengths and Difficulties Questionnaire):**
 - Summed on GUI
 - Several categories and then summed into a total score and cut off points applied.
 - three level variable created following clinical guidelines re: cut-points
 - Normal-Borderline-Abnormal (some lit shows 4 categories, abnormal divided into two separate categories, using 3 here)
- **Dependent Variable for Adults: CESD-8,**
 - measures depression, 8 questions, 4 levels, scored into a binary variable.
- Both variables well documented in literature
- In both variables, use of continuous format evident in literature also. Here the ordered and binary options are employed.



Independent Variables

- **Child Specific:**

- SDQ, Exercise, Health Status, Chronic Health Status, Self-Describe.

- **Adult Specific:**

- Depression, Usual economic activity, Hours worked, Health Status, Chronic Health Status, Education.

- **Household:**

- Income (equivalised annual HH).

- Income proxies: Ability to Make Ends Meet, Medical Card, Health Insurance.

- Location (urban rural), Couple, Homeowners. Social Class.



Some Descriptive Statistics on the Dependent variables

Children

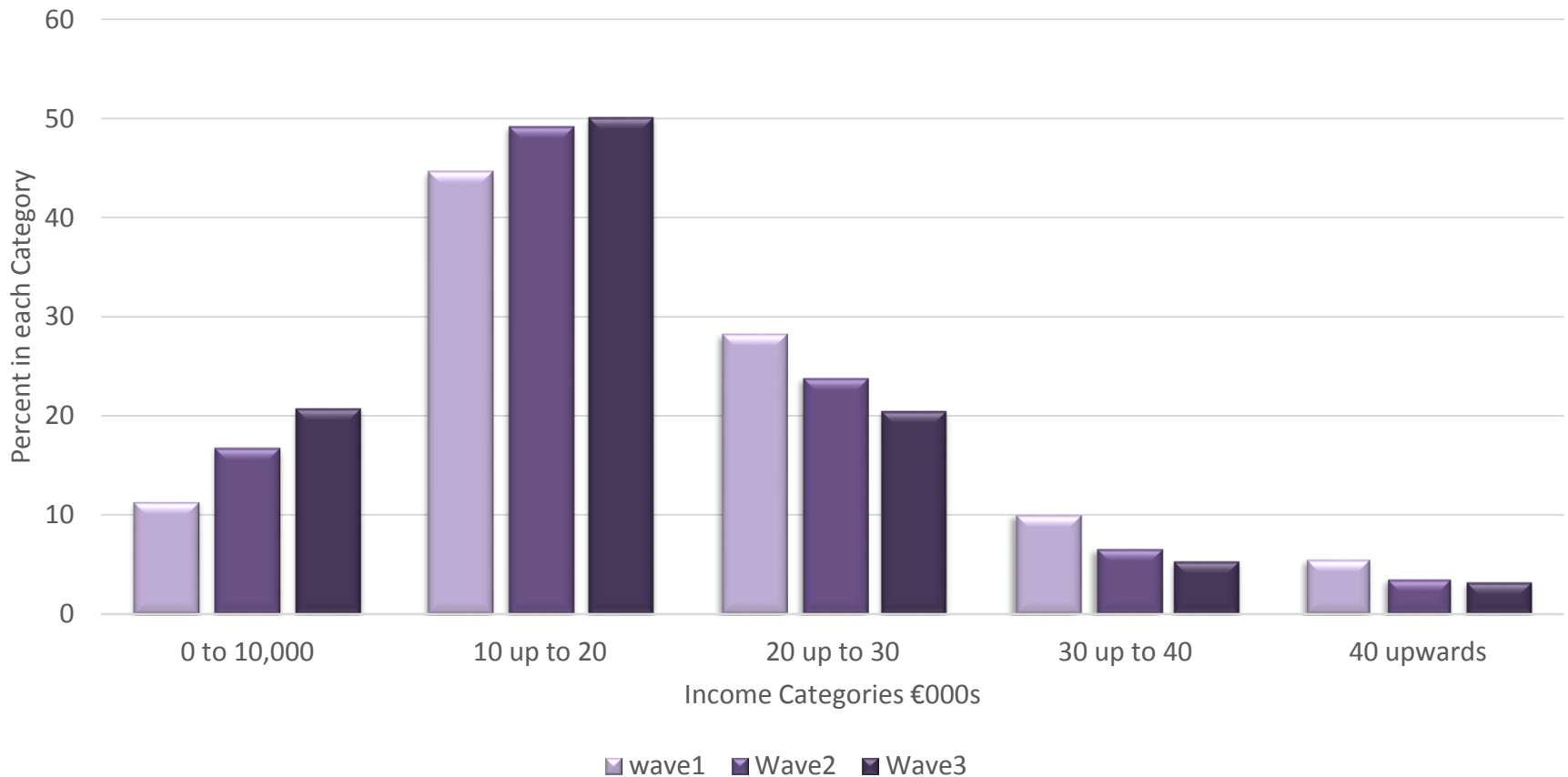
	Wave 1 9y/o		Wave 2: 13 y/o		Wave 3: 17y/o	
	Girls	Boys	Girls	Boys	Girls	Boys
Normal	89.97	87.4	92.1	90.1	89.7	91.9
Borderline	5.05	7.02	3.65	5.12	5.53	3.83
Abnormal	4.98	5.53	4.27	4.82	4.82	4.24

Male and Female Caregivers

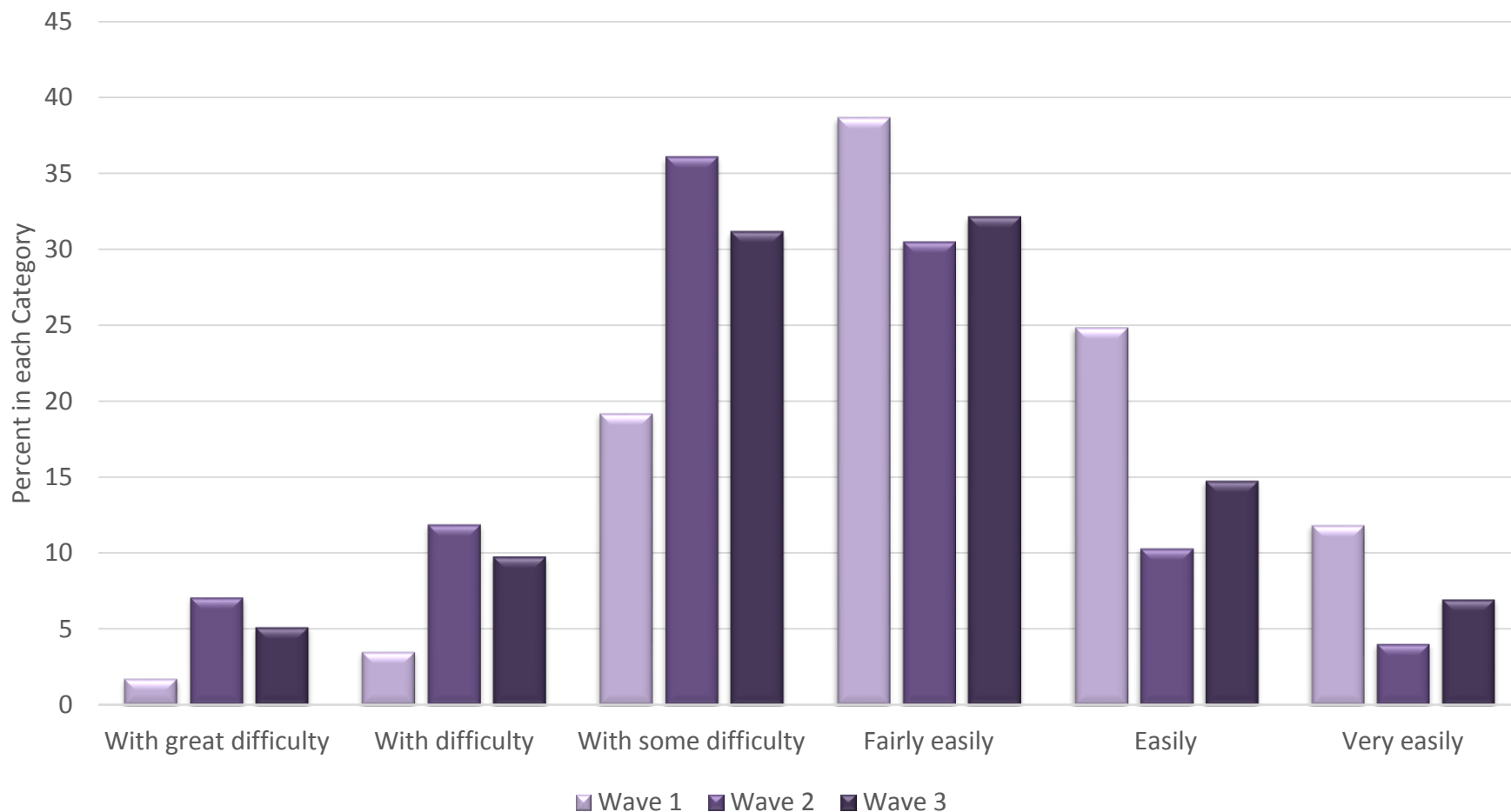
	Wave 1: 2009		Wave 2: 2011		Wave 3: 2015	
	Female	Male	Female	Male	Female	Male
Not Depressed	92.69	95.82	90.35	94.66	88.39	93.68
Depressed	7.31	4.18	9.65	5.34	11.61	6.32

Income: Equivalised Annual HH Income

Equivalised Annual HH Income: % in Each Category



The Household Ability to Make Ends Meet

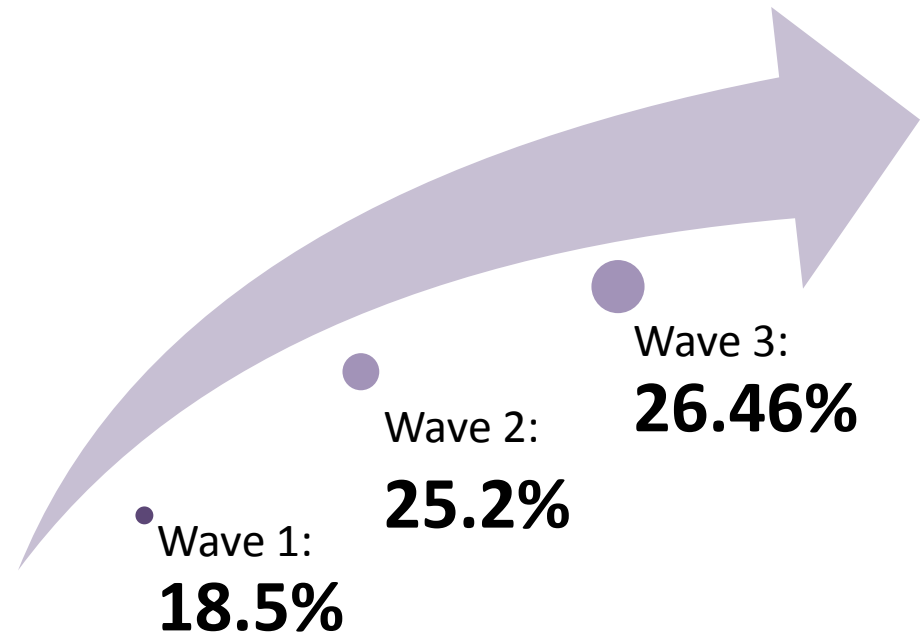


Income Proxies: HH Health Insurance and Medical Card

Wave 1:
68.8%

Wave 2:
62.64%

Wave 3:
58.97%





Usual Economic Activity

	Wave 1		Wave 2		Wave 3	
Usual Activity (%)	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>
Employee	62.56	51.98	57.84	55.38	59.01	60.28
Self-employed	32.55	7.31	29.84	8.66	29.9	9.36
(Total employed)	95.11	59.29	87.68	64.04	88.91	69.64
Student full-time	0.56	1.23	0.8	1.32	0.72	1.31
Unemployed/ training scheme	1.97	1.31	7.76	2.97	4.75	2.24
Home duties/ retired	0.3	37.43	1.92	29.56	3.38	22.73
Other	2.06	0.73	1.84	2.1	2.23	4.08

	Wave 1		Wave 2		Wave 3	
Hours worked (%)	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>
Up to 30	8.92	78.96	19.02	74.38	17.41	65.81
30 and above	91.08	21.04	80.98	25.62	82.59	34.19



Pattern	F	%
111	4855	80.39
112	216	3.58
113	114	1.89
121	99	1.64
122	35	0.58
123	37	0.61
131	64	1.06
132	28	0.46
133	33	0.55
211	145	2.40
212	20	0.33
213	15	0.25
221	30	0.50
222	10	0.17
223	11	0.18
231	19	0.31
232	7	0.12
233	27	0.45
311	112	1.85
312	18	0.30
313	6	0.10
321	15	0.25
322	7	0.12
323	20	0.33
331	20	0.33
332	22	0.36
333	54	0.89
	6039	100%

SDQ Transitions in Children

Transitions	All	Boys	Girls
Always Normal	80.39	79.91	80.85
Improving	5.81	4.75	6.82
Always Improving	4.90	5.23	4.59
Always Borderline	0.17	0.17	0.16
Deteriorating	7.83	8.96	6.76
Always Abnormal	0.89	0.98	0.81

Raw Transitions

- 1: Normal
- 2: Borderline
- 3: Abnormal

- Higher rates of exercise , more describe themselves as just the right size
- Very few chronic health issues
- Low Female CG depression rates
- Higher % of parents over 40
- Higher percentage of working CGs and fewer stay at home CGs
- Parents health significantly better
- CGs are more highly educated and in higher income categories
- CGs are homeowners
- CGs are part of a couple
- Higher social class
- More likely to have health insurance/fewer medical cards/find it easier to make ends meet

CESD-8 Transitions Adults

Raw Transitions

1: Not depressed
2: Depressed

Patterns	Female %	Male %
111	80.28	89.84
112	2.71	1.43
121	3.64	1.67
122	1.75	0.75
211	6.46	3.29
212	1.05	0.4
221	2.46	1.33
222	1.65	1.29

Transitions	Female %	Male %
Never Depressed	80.28	89.84
Improving	8.92	4.62
Jumping	4.69	2.08
Deteriorating	4.47	2.18
Always depressed	1.65	1.29

Similar Characteristics Present for Females* and Males**

- Child mental health status *
- Childs health status *
- Child Chronic health status *
- Usual activity status *
- Full time work **
- Health status
- Health status of partner
- Education /social class/ income/making ends meet gradient
- Med card **
- Couple **
- Homeownership **



Methods

Some debate in the literature as to which method is better

- Economists tend to consider a variable(s) such as this one to be ordinal in nature and use a random effects ordered logit/probit
- Psychologists and sociologists may consider the variable to be cardinal in nature and then use OLS.
- Here the ordered logit is used through xtologit / xtlogit in Stata.
- Odds ratios are calculated for more intuitive interpretation.



Child Results (Significant Only)

OR. < 1: Better MH odds
OR. >1: Poorer MH odds

	BOYS	GIRLS	ALL
	OR	OR	OR
Borderline lag	2.879**	3.152**	2.960**
Abnormal lag	5.205**	6.287**	5.377**
Exercise 1-2 times a week	0.743	0.671*	0.720*
Exercise Almost every day	0.592**	0.733	0.654**
chronic health child	2.160**	2.258**	2.253**
Healthy, a few minor problems	1.587**	2.481**	1.989**
Sometimes ill, always unwell	3.202**	7.714**	5.262**
A bit skinny	0.791	0.459**	0.594**
Just the right size	0.592	0.334**	0.445**
A bit/Very Overweight	0.646	0.517*	0.582**
Female CESD-8	1.857**	2.020**	1.982**
Female Fair health	1.451	1.746*	1.579*
Female Primary degree	0.464	0.391**	0.433**



Child Results (Significant Only):continued

OR. < 1: Better MH odds
OR. >1: Poorer MH odds

	BOYS	GIRLS	ALL
	OR	OR	OR
Male Self-employed incl. farmer	0.627**	0.813	0.707**
Male Unemployed/ training sch	1.559	0.446*	0.729
Male Home duties/ retired	1.384	0.320*	0.559
Male work30plus	2.090*	0.645*	1.002
Male Very good health	1.418*	0.890	1.113
Male Fair health	2.353*	1.252	1.751**
Male Postgrad	1.109	0.339**	0.628
Male Unskilled	0.371	0.259	0.316*
MEM With difficulty	0.537*	0.944	0.711
MEM With some difficulty	0.625	0.643	0.628**
MEM Fairly easily	0.461**	0.582*	0.510**
MEM Easily	0.561	0.529	0.555**
Homeowner	0.662	0.705	0.659**



Male/Female Results (Significant Only)

	Female	Male
	OR	OR
Depression Lag	3.026**	7.525**
Partners Depression	1.556**	1.563*
Borderline-Child	1.740**	1.257
Abnormal-Child	2.156**	1.049
Gender child male	1.092	1.296*
Very good own HS	1.625**	1.091
Good own HS	2.896**	1.858**
Fair own HS	3.307**	4.255**
Own chronic health	1.354**	1.382
Skilled Manual	0.821	2.907**
Non Manual	1.039	2.607**
Managerial Technical	0.982	2.979**
Professional	1.104	2.429**
€40 up to €50,000 EAH	0.393*	1.119
Health Insurance	0.765**	0.810
MEM With difficulty	0.614**	1.173
MEM With some difficulty	0.487**	0.858
MEM Fairly easily	0.321**	0.625
MEM Easily	0.264**	0.395**
MEM Very easily	0.346**	0.331**
Couple	0.489**	1.034

OR. < 1: Better MH odds
OR. > 1: Poorer MH odds

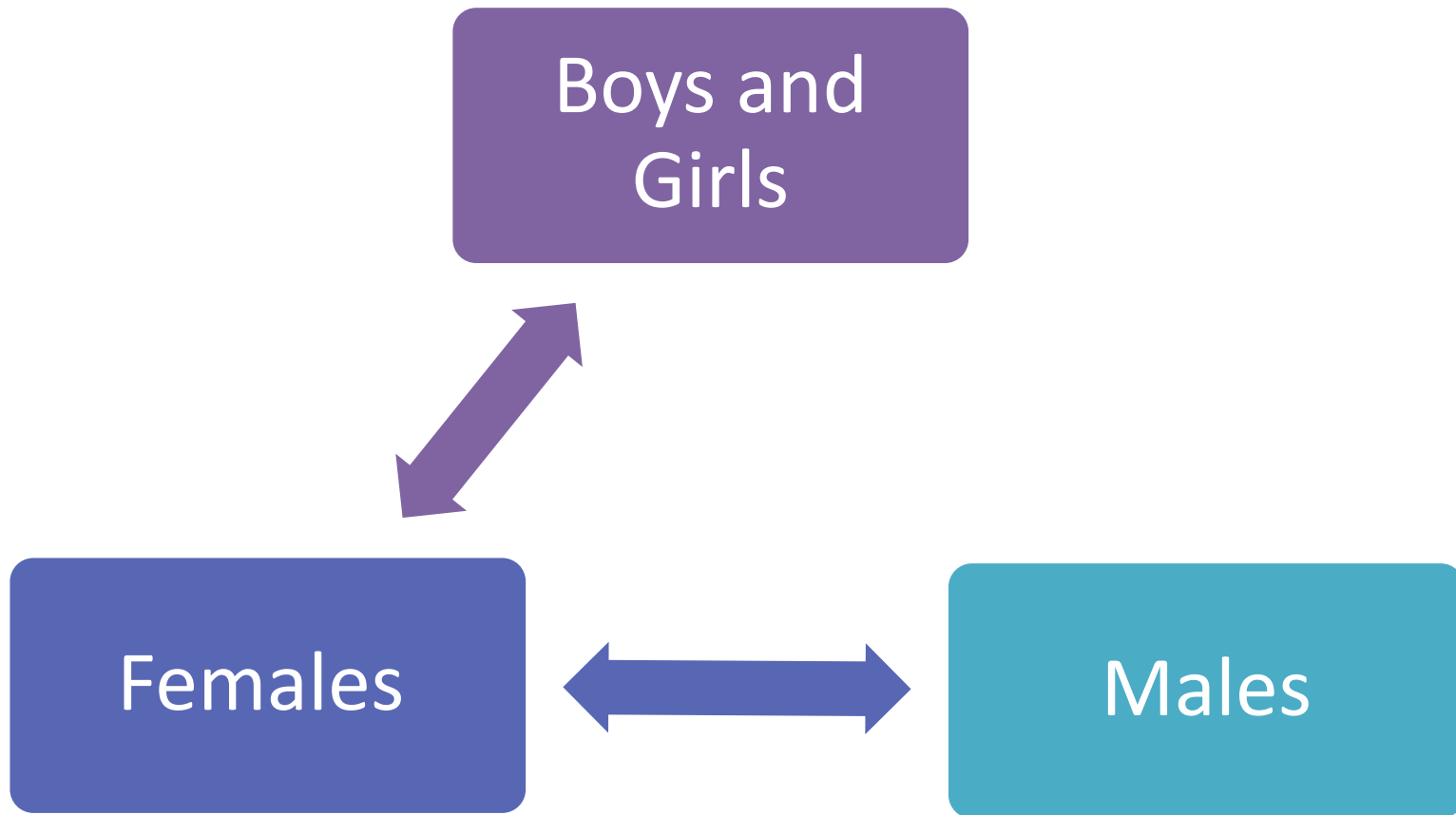
No significant variables in Usual Activity category / Education categories for neither Males nor Females

The proxy income variables are showing up as significant in the results mainly for females.

Working hours not statistically significant for adults



Mental Health Interaction within the Household





To Recap and Compare

Boys and Girls

- Income categories insignificant over time
- Making ends meet significant
- SDQ levels *relatively* similar over time
- Higher lagged SDQ coefs in girls
- Female CESD-8 significant for boys and girls. Male CESD-8 not sig.
- Self-image a significant variable for girls

Males and Females

- Income *generally* insignificant.
- Making ends meet significant
- Working hours insignificant
- CESD-8 levels differ between M and F
- Higher lagged CESD-8 coefs in males
- Childs SDQ significant for females but not for males
- Social class variables for males
- Relationship variable for females



Some Policy Implications

- Validity of income during this period.
- Working hours.
- Improved psychological health may have positive inter-generational consequences.
 - Investment could have two-fold effect.
- Changes in mental health patterns between childhood and adulthood in females need to be investigated with the aim of reducing the risk of depression in adulthood.



Thank you for Listening.
Questions or comments?