

Housing and Poverty

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Housing and poverty

- Economic crisis
 - Increase on poverty ... consumption deprivation
 - Young households go back parents home
 - Housing evictions (both young and aged households)
 - » Elderly couples who support their children with the house as collateral
- In Spain, the process has created a social warning..
 - plataforma anti-desahucios'(2009)
 - Changes on regulation
- Perception of any increase on poverty is caused by problems related to the house
 - 'The mortgage drama'.... House is the guilty

hypothesis

- To how extent poverty produces housing deprivation
- Or Is housing deprivation the cause of poverty?
 - Is there a causal correlation between them?
- The scope of housing-poverty ?
 - Is housing protecting or promoting poverty?

Poverty

- Situation where cost/income fall under the poverty line (Goedhart et al, 1977)
- Property of a individuals' situation when basic goods consumption is severely constrains (Watts, 1968).
- 2 types:
 - Transitory
 - Permanent

How Poverty considers housing

- Poverty definition considers housing as....:
 - Additional income to pay the rent (Rowntree, 1902)
... **income approach**
 - Poverty threshold, poverty rate, poverty line
 - Combination of basic facilities good enough to cover residential needs .. Multidimensional deprivation
 - Set of dimensions that meet the basic needs and avoid and prevent exclusion (Towsend, 1987, A Sen, 2000 and others)
 - Housing has similar weight than the rest of dimensions
 - There is no expenses prioritizing

How Poverty considers housing

- House is measured through quality supposing deprivation
 - Built index (Townsend, 1987, Mack and Lansley, 1985, Callan, Nolan and Whelan, 1993, Sen, 2000, Anad and Sen, 1997..)
 - House having similar weight than other poverty index components
- **Main research estimate poverty threshold**
 - with no specific house cost description.
 - Monetary poverty indicators (PI): poverty lines, Kapteyn lines, (Kapteyn and Van Praag, 1976, Sen, 1979, 1983, Thon, 1979, Thorbecke, 1984..)
 - Non monetary PI: Material deprivación

How Poverty considers housing

- Poverty-housing quality relationship
 - It is assumed that a low-income households have low-quality houses
 - Renting No income to own
 - Meaning....When poverty is associated to low quality **Poverty vicious circle**
 - **Homeless??**
 - Households losing the house fall in the poverty (Haurin et al. 2003)
 - Insufficient measures of housing in Poverty indices?

How house considers poverty

- Housing theory measures the capability of household to enter into housing market
 - Through Affordability definitions
 - First time enters (buyers)
 - Housing consumption (renters)
 - Differencing by house tenure and poverty levels
 - Income is a key factor, combined with other variables
- Poverty could appear as a **direct effect** of holding or maintaining a house

Housing considering poverty

- Affordability is key:
 - Fulfilling conditions to enter in house market
 - RENT
 - OWNERSHIP
 - Affordability under the thresholds have strong social impacts:
 - Delay household formation
 - Migration towards more affordable housing markets
 - homeless..
 - Cyclical?
 - Affordability measures short and medium term situations

Housing considering poverty

- It identify poverty and housing when:
 - Residual income (after housing costs) is small..
 - Not allowing basic goods consumption (Shelter poverty) ... permanent?
 - Affordable house: cost and quality
 - Thalmann, 1999,2003, Lerman and Reader, 1987, Gabriel et al, 2005, Mclennan and William, 1990, Bramley, 1990..)
 - Housing expenses are far than 30% of income in poor households...
 - housing stress.... Transitory - temporary
 - Housing stress leads to shelter poverty

Not clearly distinction between ownership and rent

- Household effort to pay housing costs
 - It is long term as mortgages use to have large maturity (ownership)
 - McLennan and Williams, 1990, Bramley, 1990,
 - There are fails in market assignement.. (Stone, 1993)
 - » First entrance is great step...
- Minimum assignment has to fulfill a quality guarantee (MacLennan y Williams, 1990, Bramley, 1990, Hancock, 1993)
 - ... quality and enough supply' criteria(Quigley and Raphael, 2004)
- Homeowners show higher level of income than the average (Gabriel et al, 2005)
- No neutrality principle: **assignment deficit causes vicious poverty circle.**

Aim of the paper

- Hypothesis:
- Are renters poor and homeowner rich?
- Have poor household houses with less quality?

Aim of the paper

Test the rationality of Deprivation Indices relative to HOusing: housing quality as a measure of deprivation:

– Likelihood to be poor depends on housing quality?

- regression analysis to test the association between quality and poverty
 - 11 quality attributes
 - » Including 2 crowding measures (persons /room and houses/building)
- By tenure
- By household characteristics

Methodology

- Approach the Spanish case
- Main data source:
 - Life Conditions Survey, 2004-11, around 104 thousand observations
 - Micro-data
 - All Spain and Regions
 - Representative to the whole population

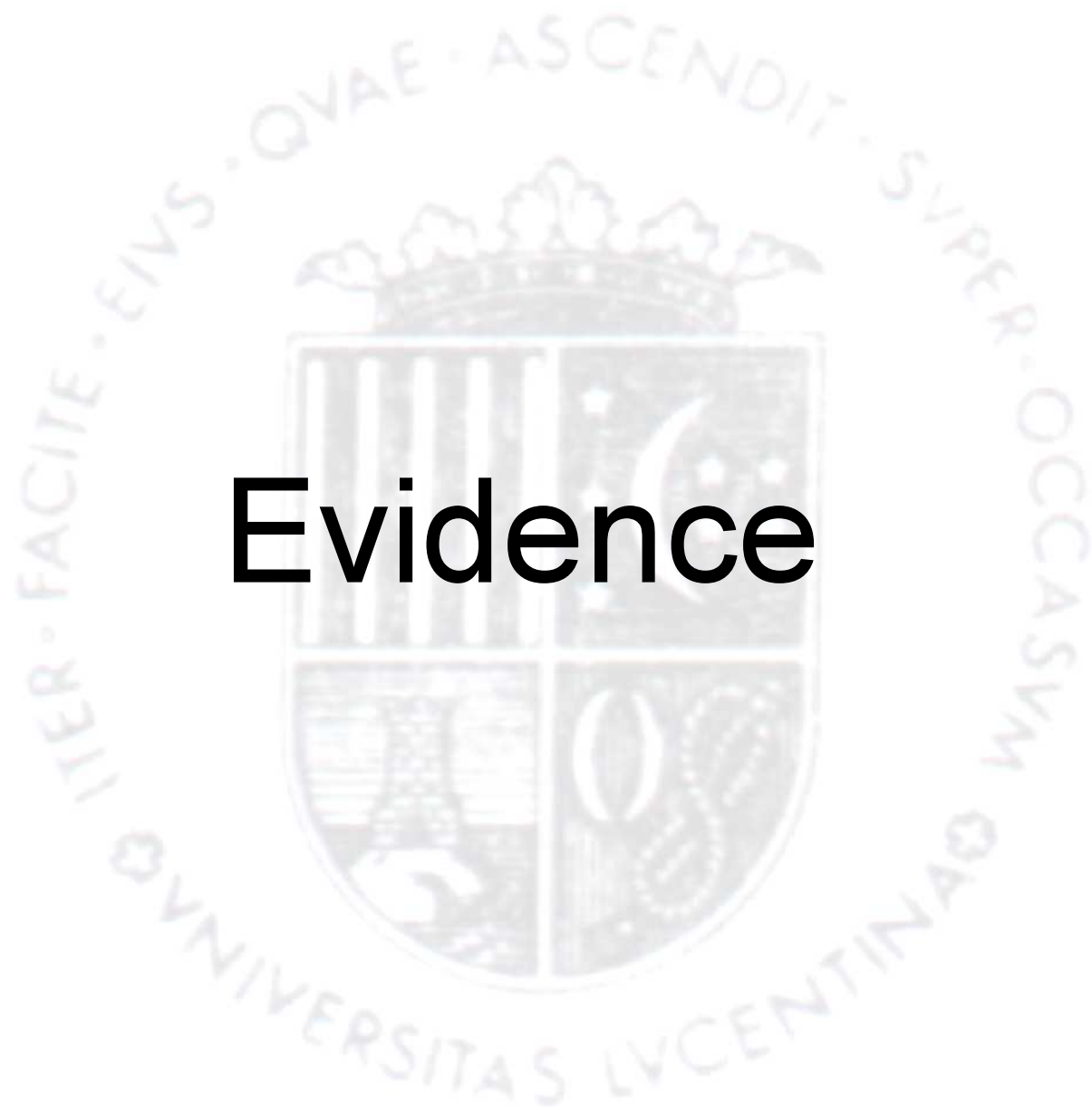
Methodology

- Panel analysis
 - 104,751 households observed
- Two steps:
 - Exploratory analysis: estimating poverty indicators associated to tenure
 - Identify and sample segmentation
 - Hedonic regression analysis for quality and poverty tests

Basic statistics

CUADRO 2. ESTADÍSTICAS BÁSICAS DE LA ENCUESTA DE CONDICIONES DE VIDA. 2004-2011

	N	Media	Mediana	Moda	Desviación estándar	Asimetría	Curtosis	Mínimo	Máximo
Válido									
AÑO	104751	2007	2008	2004	2,33	-0,02	-1,27	2004	2011
CCAA	104751	10	10	15	5,03	-0,18	-0,93	1	19
Año compra o instalacion	103427	1988	1991	2000	15,79	-1,14	1,97	1900	2011
Alquiler actual por la vivienda	11093	350,43	320,00	300,00	255,20	1,68	7,01	1	2700
Ingresos mínimos/ fin de mes	102260	1824,48	1600,00	2000,00	1030,96	11,48	619,29	8,00	80900,00
Número de miembros del hogar	90127	2,77	3,00	2,00	1,32	0,68	1,04	1	16
Renta Bruta del hogar	104751	26954,03	21600,00	0,00	21152,02	2,27	12,92	0,00	532200,00
Cuota hipotecaria mensual	17559	547,21	480,00	600,00	329,23	2,19	11,58	4,00	5000,00
n_habitaciones	104681	4,82	5,00	5,00	0,99	-0,69	0,28	1,00	6,00
Tipo de vivienda (1=urifamiliar, 2=Adosada, 3= piso en edificio con menos de 10 viviendas, 4= piso en edificio con 10 o más viviendas)	104539	2,89	3,00	4,00	1,13	-0,46	-1,25	1,00	4,00
tenencia	104751	1,33	1,00	1,00	0,82	2,48	4,85	1,00	4,00

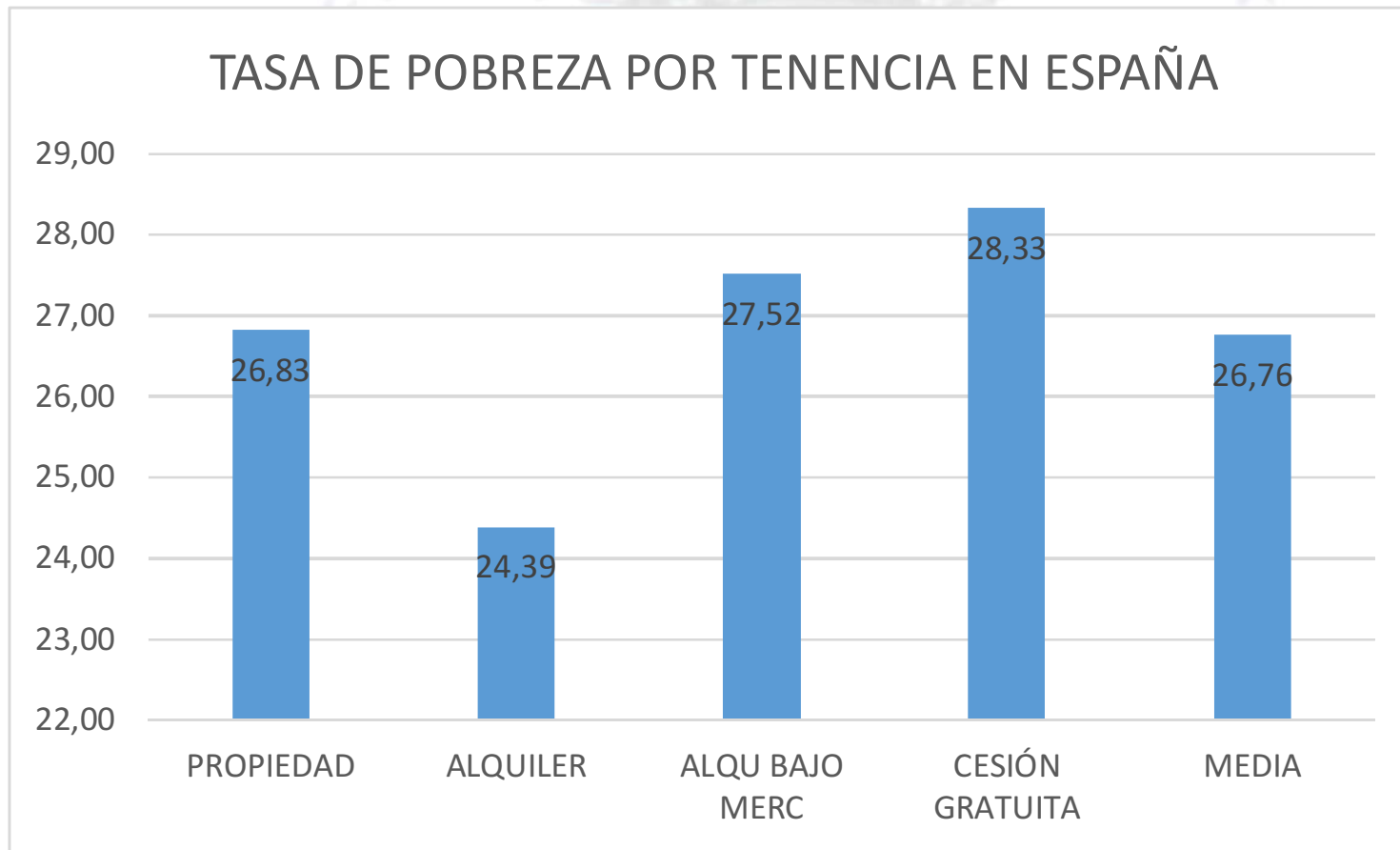


Evidence

Poverty distribution by tenure

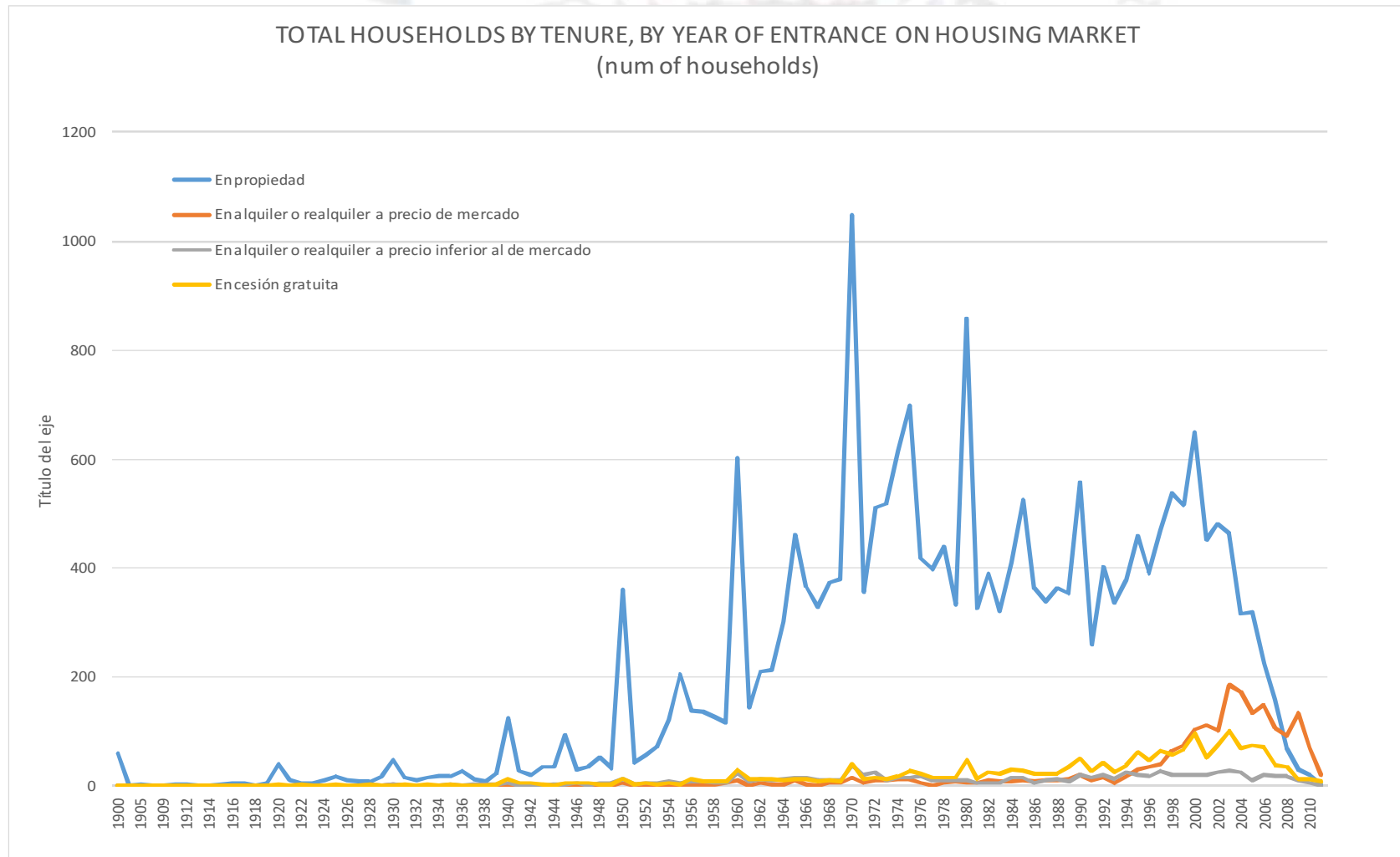
	% of total households	MEDIAN INCOME (euros/year)	Affordability: Debt(rent)/income (%)	Residual Income (median by tenure) (euros/year)	residual income over Poverty Line (each tenure)
TOTAL SAMPLE					
ownership	82,8	22716,5	17,8	18670,15	1,37
Rent (market price)	7,62	18456,5	23,8	14062,55	1,27
Rent (under market price)	3,17	15373,5	8,3	14091,04	1,53
Free house	6,41	16708,5	0,0	16708,5	1,67
(POVERTY LINE)					
HOUSEHOLDS under POVERTY LINE					
ownership	86,2	13629,9	54,9	6152,9	0,45
Rent (market price)	3,35	11073,9	54	5093,9	0,46
Rent (under market price)	3,87	9224,1	15,3	7812,2	0,84
Free house	6,5	10025,1	0	10025,1	1

Exploratory analysis. Poverty ratio by tenure (households in poverty line/total, estimate on median income each tenure)



Some kind of poverty segmentation by tenure

Tenure history: household by year of housing mkt entrance



Likelihood to have housing costs in poor Spanish households

Likelihood to have housing payments associated to tenure

	%
ownership	7,38
Rent (market price)	93,32
Rent (under market price)	93,11
Free house	0

Likelihood to fall in housing stress

ownership	4,8
Rent (market price)	5,17
Rent (under market price)	0,77
Free house	0

**PROBABILIDAD DE CAER EN HOUSING STRESS. RANKING DE
RIESGO**

	PROPIEDAD	ALQUILER	ALQU BAJO P. MERC
Melilla	10,05	12,06	2,51
Baleares	7,69	11,08	1,54
Murcia	7,16	4,26	0,17
Cantabria	6,95	3,80	0,13
La Rioja	6,73	6,29	0,11
Com. Valenciana	6,70	3,52	0,63
Cataluña	6,39	8,24	2,12
Madrid	4,99	6,85	1,50
Andalucía	4,65	2,97	0,48
Pais Vasco	4,55	4,94	0,97
Castilla La Mancha	4,13	3,68	0,13
Navarra	3,85	5,71	0,55
Aragón	3,62	4,96	0,25
Extremadura	3,43	2,89	0,81
Galicia	3,21	3,16	0,10
Canarias	3,00	6,94	0,86
Castilla León	2,88	3,67	0,45
Asturias	2,37	5,15	0,41
Ceuta	1,63	7,59	0,54
ESPAÑA	4,79	5,17	0,77

**Likelihood
to fall in
housing
stress by
region**

Housing and Poverty. The role of housing quality

- Poverty analysis (deprivation indices) includes housing measuring through the features quality
- Testing whether or not there is an association between housing quality, tenancy and poverty.

Housing and Poverty. The role of housing quality

ECV – subjective answers from households

$$P[\text{poor}] = \phi(\text{housing quality}) = \alpha + \beta X + \mu$$

Where,

'X includes 11 characteristics of household house (10 categorical)

- Urban (-)
- Temper (-)
- Bath (-)
- Water (-)
- Nat light (-)
- Noise (-)
- Contamin (-)
- Delinc (-)
- Persons/room (+)
- House type (building density) (-)
- Leaks/Humidity (-)
- Tenure

□ α and β to be estimated by

- P(poverty) is the probability to fall under poverty line in any year during the period
- SEGMENTED, by household type and tenure

- Tenure and household type are strongly associated to poverty
- Need to segment the sample
- Summarizing households to 6 categories:

h_1	1 adult <65 years old
h_2	1 adult > 65 years old
h_3	1 adult with children
h_4	2 adults < 65
h_5	2 adults > 65
h_6	couples with children
h_9	Others

Dependent variable: probability to fall under poverty line				
	B	t	Sig.	
Constant- α	-0,20	-5,06	***	
Persons per room	0,03	5,15	***	
Urban	0,02	11,07	***	
House type (building density)	-0,02	-15,07	***	
Temper	0,14	29,51	***	
show er	0,22	7,23	***	
Natural light	0,03	6,26	***	
noise	0,00	0,77		
contamin	0,00	-1,19		
delinc	0,01	3,86	***	
Leaks/Humedity	0,03	9,69	***	
d_h_1	0,16	6,85	***	1 adult <65 years old
d_h_2	0,47	20,29	***	1 adult >65 years old
d_h_3	0,08	3,35	***	1 adult with children
d_h_4	0,02	0,68		2 adults <65
d_h_5	-0,18	-7,84	***	2 adults >65
d_h_6	-0,19	-8,44	***	couples with children
R2	0,25			
Adj R2	0,25			
F	1782,52	sig	***	
DW	1,92			
***	p-value < 0,01			
**	p-value < 0,05			

Poverty
related to
type of
household

Results

- Similar distribution tenure among Spanish households in both groups under and below poverty threshold
 - ‘Poor’ Households shows a very similar ownership rate but
 - Larger renters .. 9% (6,7%)
 - Renters under mkt Price .. 4,5% (2,3%)
 - holding free house .. 8,5% (5%)
- Results change depending on how the poverty line is segmented
 - By region vs by tenancy?

Results for 'Poor' households Owners (and total)

- Owners and total population are associated to urban density: the less urban dense the city, the higher probability to fall under the poverty line ... Poor's tend to concentrate in low dense cities ($\beta=0,022$)
- House characteristics owned by poor households: to fall under poverty line is ASSOCIATED to:
 - Temperature in house is not adequate ($b=0,12$) ..12%
 - The unexistence of bath or shower ($b=0,26$)
 - Insufficient natural light in rooms ($b=0,03$)
 - Delinquency or violence ($b=0,01$)
 - Problems with leaks and humidity ($b=0,03$)
- Negative associated to:
 - Contamination problems in the neighbourhood ($b=-0,0016$) .. No contamination
 - Overcrowding:
 - Persons/room: dense house' use ($\beta= -0,011$) .. Lower people living in house
 - Density in house construction ($b=-0,021$) .. Lower dense building where the house
- Single household > 65 years old.. 45%, 11% younger than 65
- 2 adults (both older and with children) seem 'protected' by ownership
- Explains 26% of dependent variable (poor households)

Results for 'Poor' households renters

- Renters, both at and under mk Price, are associated to
 - Temperature in house is not adequate ($b=0,17$ and $0,16$)
 - Humidity in house ($b=0,05$) only renters at mkt Price
 - Delinquency in the neighbourhood ($b=0,04$) and the availability of shower/water in the house ($b= 0,33$) only renters paying under mkt Price.
 - Overcrowding only in rent at market price:
 - persons/room: dense house' use ($\beta=0,05$) .. More people living in house
 - Density in house construction ($b=-0,033$) .. Lower dense building
- Single households with and without children in rent at mk price are strongly associated to poverty
 - Elderly single household 52% in rent at mk price, 40% in rent under mk price
 - In case of renters under mk price, ONLY elderly people
- Explains 14% of probability to become poor household in rent at market price
- 23% in the case of tenure at price under mkt

Results for 'Poor' households ceded free house

- No information about why they have free house
 - Not only Social policy groups, also young households
 - Lower income than the average
- Very consistent with similar associations than before:
- Positive to
 - Temperature in house is not adequate ($b=0,18$)
 - Delinquency in the neighbourhood ($b=0,04$).Negatively with Overcrowding: in construction
 - Density in house construction ($b=-0,01$) .. Lower dense building
- **Households holding free house shows to be located randomly and low problems in house quality**
- **High likelihood to fall in poverty for those SINGLE ELDERLY GROUPS (41%) AND COUPLE WITH CHILDREN (31%)**
- Explains 29% of dependent variable (poor households)

Conclusions

- Relative reduce poverty level directly associated to house
- Ownership seems to protect from severe poverty
- Deprivation depends on other variables, like income levels
 - Low income to pay energy for heating
- Quality is associated to poor households that are owners
- Single Elderly households are in danger in all categories

**Thanks for your
attention**

