

Social Sustainability of Neighbourhoods: UK perspective on the concept and its relevance to planning & regeneration

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Structure of the Presentation



- Discuss the concept of '*social sustainability*' and its relevance to planning, housing & regeneration policies/practices
 - Report findings of *UK research* programme concerned with *impact of urban form* on range of sustainability outcomes (with particular reference to social)
 - Consider briefly related issues of housing tenure/cost and *social mix*
 - Discuss balancing of different sustainability *criteria* in planning future development (or regeneration)
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Sustainable Development



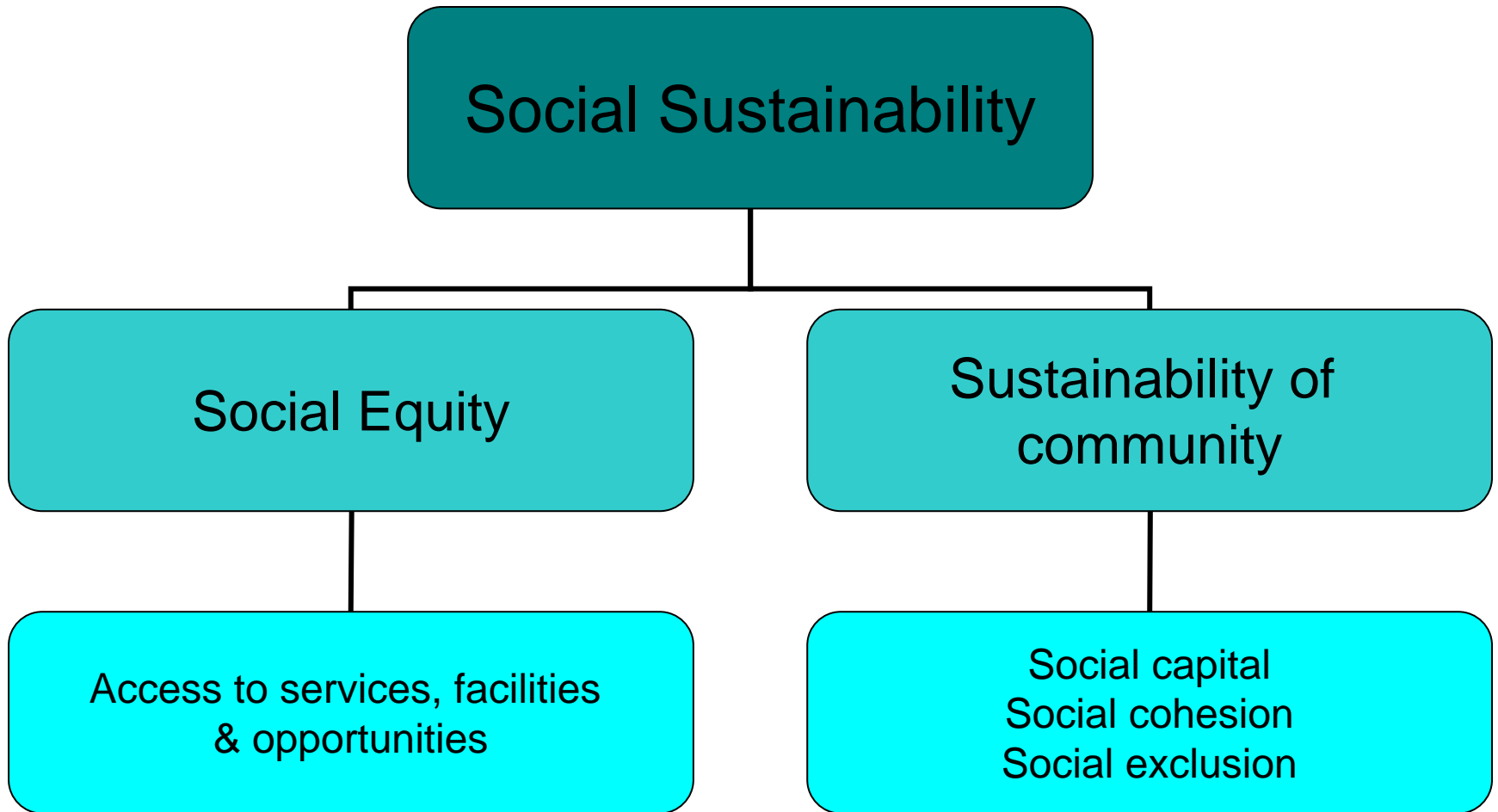
Sustainable Development
= Meeting today's needs
without compromising
future generations'
ability to meet their needs
(Brundtland, 1987)

Environmental
Sustainability

Economic
Sustainability

Social
Sustainability

Dimensions of social sustainability



UK Government Policy Definition: What is a

Sustainable Community? – *Securing the Future*, Cm 6467, Mar 2005, Annex A

Alias 'The Bristol Accord' – EU adopted

- **Active, inclusive & safe**
 - identity & belonging
 - (tolerance of difference)
 - friendly, cooperative
 - leis/cult opps, esp for young
 - low crime/drugs/ASB
 - social inclusion & 'good life'
- **Well served**
 - educ, health, SS
 - range of accessible services
- **Well designed and built**
 - sense of place/ approp form
 - friendly/healthy/safe public spaces
 - accessibility jobs/services/facil
by p t/walk/cycle
(- range of affordable housing)
- **Well run**
- **Environmental sensitive**
- **Well connected**
- **Thriving**
- **Fair for everyone**

KEY

Environment

Economic

Social Equity

Community



Social Equity

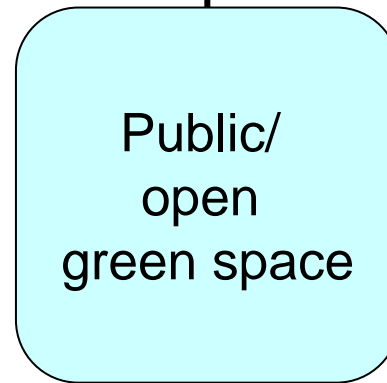
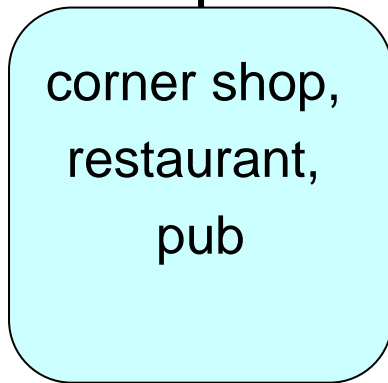
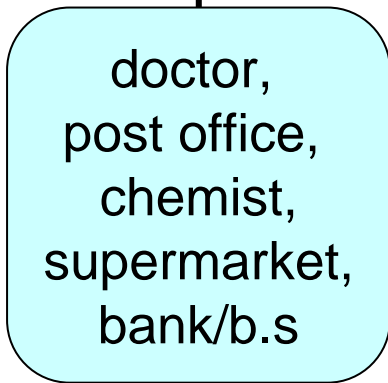
Also:

Access to

- affordable housing
 - job opportunities
 - public transport
- (other parts of CF research)



Access
to services
and facilities



Sustainability of community



Sustainability
of
community

Interaction/
Social networks

Participation

Pride/
Sense of place

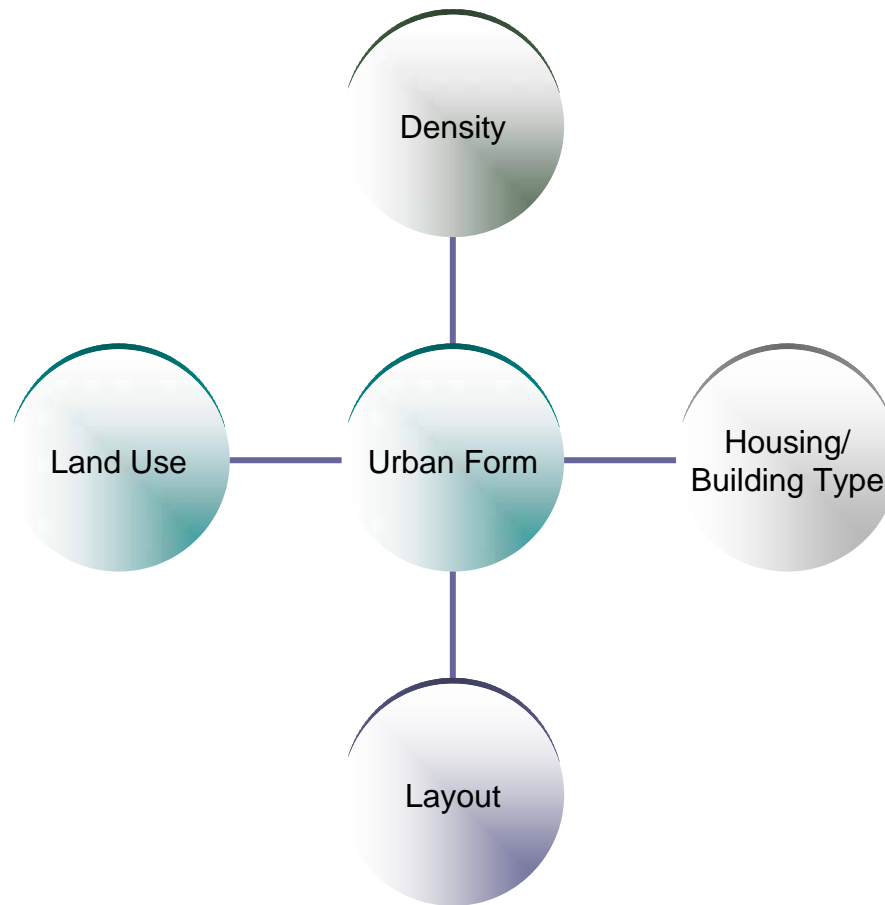
Stability

Crime

Social Sustainability – Does it Matter?

- Increased emphasis in government **policy** statements: implies indirectly important via politics of urban growth
 - The **economic costs** of social dysfunction
 - crime, illness, accelerated obsolescence, caring
 - **'Happiness'** (the new science of....Layard 2005)
 - fundamental goal; and we can measure it
 - higher/rising income does not necess incr happiness
 - of 7 main causes, several are related to our Soc Sust concept:
 - family relationships
 - health
 - community and friends
 - good (local) government(Layard pp 62-70)
 - Soc Sust => urban **'Vitality'** => economic development
-

Elements of Urban Form...



Elements of Urban Form



- **Size** of city(-region) or settlement
 - **Structural form**, e.g. monocentric/polycentric/linear
- associated distribution of job & residential densities
 - Residential **density** e.g. pop/rooms/dwg per ha; plot sizes & ratios; net & gross;
- spatial unit e.g. house, street/block, COA, ward
 - Street **layout** network characteristics (e.g. grid vs cul de sac – measured using MCA)
 - Predominant residential **building type** & scale
 - **Mix** of land **uses**
 - **Design** features, e.g. shared entrances, blank frontages
 - **Gardens & greenspace**
-

CityForm Household Survey



- 15 neighbourhoods in 5 cities: inner, middle and outer
 - Varied social, tenure and built form mix; c.2000 hhds
 - Random sample, self-completion, 35% response
N := 4300
 - Questionnaire covers all dimensions of social sustainability
 - May be linked to Census data, deprivation indicators, house prices, etc. at n'hood level
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Measuring Social Sustainability

- 8 elements measured; all based on responses to multiple questions
e.g. social interaction based on 13 questions, such as whether they have friends in neighbourhood, see them frequently, know neighbours by name, look out for each other, chat, borrow, etc.
 - Where possible, combined positives & negatives & scaled in natural way; (100 would be neutral; 0 would be worst possible scores; 200 best possible)
 - Factor analysis generally confirmed groupings
 - 'Neighbourhood pride/attachment' is best single representative measure
 - Closely related to environmental quality, home satisfaction, interaction
-

Composite Scores for Different Outcomes by Location & Density – five cities



Location	Pride, attached	Inter- action	Safety	Environ- ment	Satis Home	Stable vs Mobile	Particip'n Groups	Use NH Facil/Serv
Inner	95.1	98.6	125.9	101.6	119.1	109.6	94.8	107.0
Middle	117.4	125.2	134.9	120.6	132.6	131.0	99.1	100.1
Outer	125.3	132.1	132.4	133.8	143.8	150.8	104.1	89.8
Total	114.3	120.6	131.6	120.3	133.1	132.5	99.8	98.2

Gross Density	Pride, attached	Inter- action	Safety	Environ- ment	Satis Home	Stable vs Mobile	Particip'n Groups	Use NH Facil/Serv
Under 20 DPH	124.9	124.8	137.4	128.0	145.3	141.1	111.4	100.8
20-40 DPH	121.5	122.6	136.2	127.2	137.3	137.7	105.0	97.0
40-70 DPH	112.5	120.9	130.5	116.1	129.1	126.4	96.5	102.2
Over 70 DPH	100.5	114.6	123.3	112.3	124.5	128.3	89.6	91.9
Total	114.3	120.6	131.6	120.3	133.1	132.5	99.8	98.1

Statistical modelling



- Use of multiple regression analysis to predict/explain different scores
 - Measures impact of particular urban form factors whilst controlling for lots of demographic, socio-economic etc. factors
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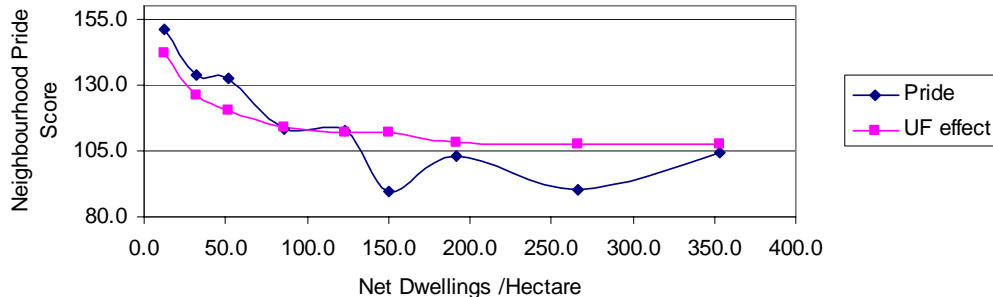
Summary of model effects (1)

Regression Coeffic's (bold=signif 10% level)	Pride/ Attach	Inter- action	Safety (-crime)	Environ Quality	Home Satis	Stability	Group Particip	Use Local Services
<i>Individual Level</i>								
bungalow					6.116			-7.283
dethse			-5.267	-3.797	7.057	-4.385		
terr	2.029	3.406		-4.665	-6.460			-3.234
flat						-7.496		
floor5	10.765		8.269				-18.084	6.252
garden	4.276	2.274		3.020	5.913			
no garden/yard/terr	-8.849	-14.106	2.317	-5.054	-9.842	-3.707	-12.358	-2.943
above ground flr		-3.533			2.087		-7.225	-2.282
<i>Sub-Area level</i>								
IMD geog access -	4.158			7.136			-1.862	-3.172
Log Dist Maj Cent	-5.267	-3.353		-6.655				-6.625
Gross Dwg Density				-0.029				
Net Dwg Density	-0.037	-0.008	-0.035		-0.007	-0.047	-0.019	-0.034
Net Density Squared						0.017		
DwelDetach %	0.053		0.196					
DwelTerr %	-0.045	0.132	-0.129		-0.081			-0.138
Over 4 storeys %	0.033	0.083		-0.125			0.147	-0.087
Gardens % area			0.240				0.376	-0.772
Ave Garden size	389.882				307.320			
Greenspace %		0.120	0.100		0.053		0.444	-0.499
Greenspace abs	0.552							
Garden+Green %				0.047				
NonResid Mix	-0.046		-0.199	-0.294		-0.117	0.798	-0.137
Mins to bus stop -								-3.026
Frequency bus serv -								-4.385

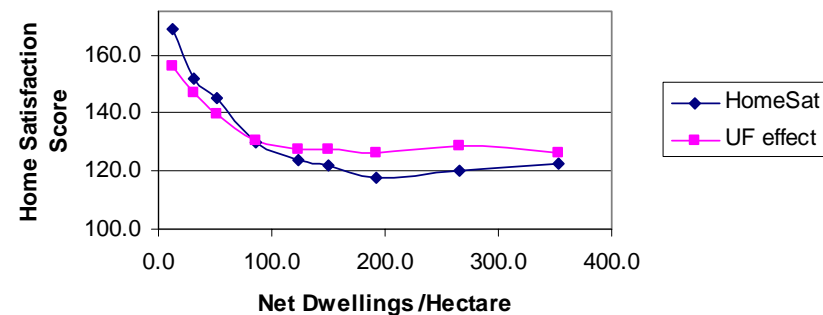


Social Sustainability and Density – overall relationships and urban form effects

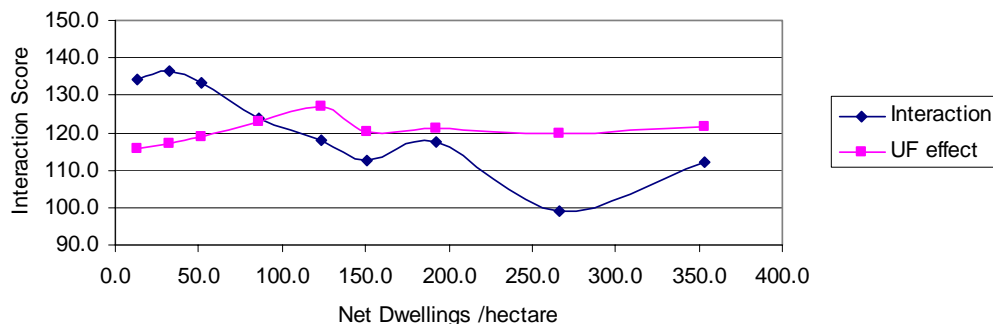
Neighbourhood Pride & Attachment by Net Density
- overall and urban form relationship



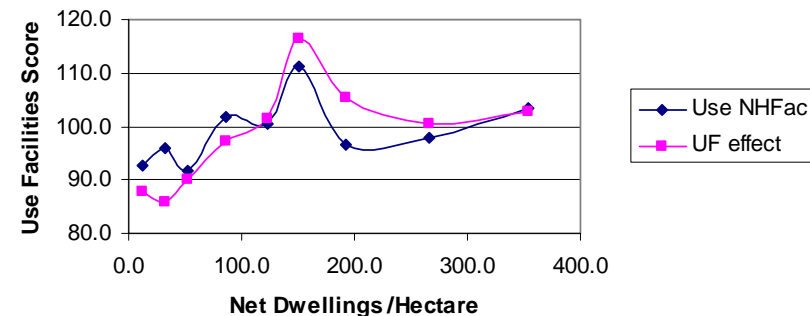
Satisfaction with Home and Net Density - overall and urban form effect



Neighbourhood Interaction by Net Density
- overall and urban form effect



Use Neighbourhood Facilities by Net Density - overall and urban form effect

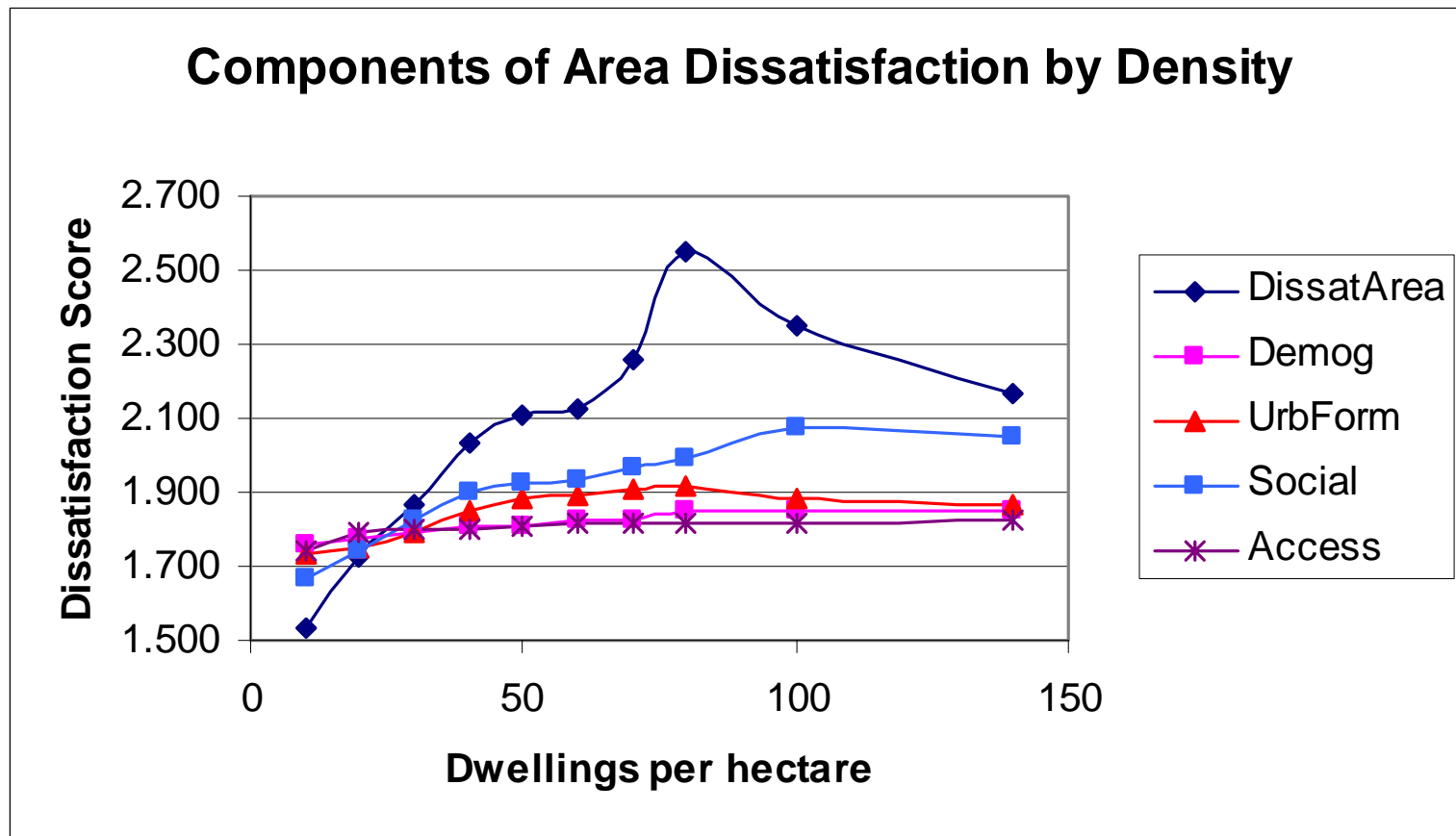


Comment on Findings



- As expected, scores fall with density in most cases
 - Fall tends to be in range up to 120 DHP (net)
 - Urban form effect not the same in each case
 - weaker for pride, environment than for home satis, safety
 - middle density areas best for interaction
 - medium/higher density areas best for use of services
 - U F effects different due to effect of correlated socio-economic & demographic factors (e.g. poverty, tenure)
-

Comparing Urban Form and other Effects on Area (Dis-)satisfaction – based on S.E.H. analysis



Note that adverse dissatisfaction score in denser areas is driven by a number of other related factors, including access, demography, but especially social/poverty



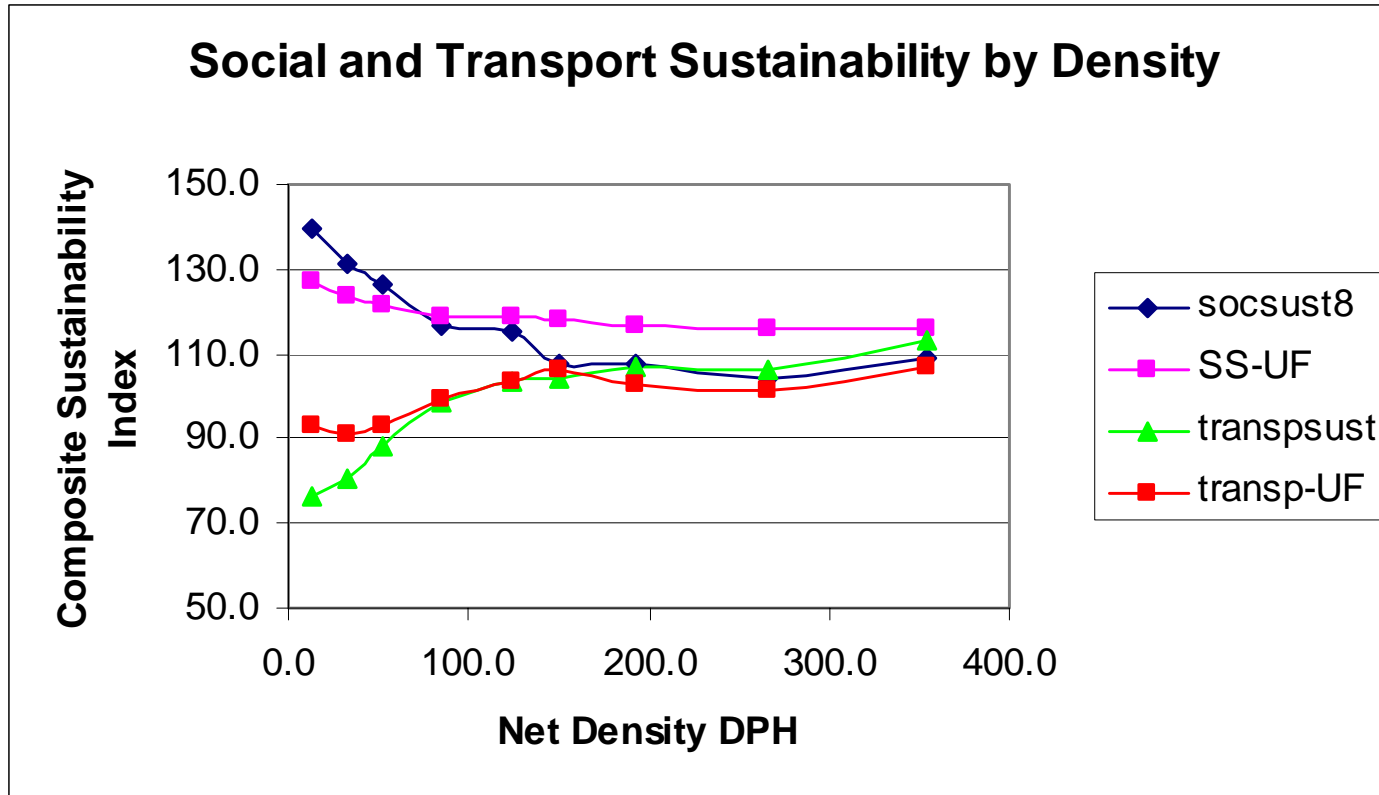


Weighing and balancing different criteria of sustainability



- Can create composite social sustainability index
 - But patterns depend somewhat on relative weighting of components
 - weighting pride/ environment favours lower density
 - weighting interaction favours middle density
 - weighting use of local services/facilities favours middle-higher density (or lessens overall slope)
 - We also have to anticipate balancing social criteria against other dimensions
 - work on environment, transport, energy, etc. not complete yet
 - can illustrate using transport data from survey and Census (15 indicators)
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Social and Transport Sustainability



Different Aspects of Urban Form

- example of house type

Percent Flats	Equal Weighted	Wtd on pride/env	Wtd on interaction	Wtd on nh facil	Transport sust'y
0-25	121.4	121.7	121.1	111.0	95.3
25-50	119.8	119.4	119.8	112.4	98.1
50-75	119.2	119.0	118.3	113.2	102.0
75-100	117.8	116.8	117.6	115.8	105.8
Total	119.8	119.6	119.6	112.9	99.6

Suggests flats not as negative as expected

Percent Terraced	Equal Weighted	Wtd on pride/env	Wtd on interaction	Wtd on nh facil	Transport sust'y
0-25	120.4	120.2	119.5	113.4	99.3
25-50	119.8	119.9	119.6	112.0	97.8
50-75	118.2	117.5	119.6	111.4	102.5
75-100	118.0	117.2	120.0	113.4	101.2
Total	119.8	119.6	119.6	112.9	99.6

Suggests terraced housing quite favoured on several criteria

Importance of Tenure & Social Mix

Gross Dwg Density	Tenure		Mix		
	Own >80 SR <10 Pred(SS8)	Own 60-80 SR 10-20	Other	Own <40 SR >40	
< 20 DPH	136.3	133.6	128.7	128.7	More owning & less social renting assoc with better social outcomes
20-40 DPH	128.7	125.0	121.7	121.7	
40-60 DPH	119.8	119.9	117.9	117.9	
60+ DPH		116.0	118.0	118.0	
Total	134.3	129.9	124.3	124.3	
	Hse Price				
Under 20 DPH	174,786	163,676	134,653	96,637	Reflected in prices in lower density areas but not in London!
20-40 DPH	184,789	183,604	147,918	129,267	
40-60 DPH	148,596	281,255	265,751	305,297	
60+ DPH		227,189	847,986	503,132	
Total	177,267	175,697	176,124	280,828	

Based on all wards in England

So what sort of housing & neighbourhoods should we plan?



- Evidence base for planning guidance could/should be improved
- Social sustainability concept is meaningful, measurable, policy-relevant and arguably important (can be related to 'happiness' literature)
- So is transport; 'wealth' (prices) more tricky to interpret
- Compact city looks bad socially, but disadvantages more marginal once you control for socio-demographics - interaction & service use favour medium or higher dens
- Sustainable transport favours higher density, as apparently do house prices
- Overall best options will differ with location; e.g. moderate densities but plenty of flats in middle areas
- Poverty & social mix as important – who lives where, and whether they choose, matters - avoid SR concentration