Divide and Distribute: The Effects of Spatial Planning and Distributive Policies in Qatar

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Outline

1. A Short Introduction to Spatial Planning
2. The Development of the Qatari State
3. Segregation and Social Capital
4. Future Work

Spatial Planning, A Definition

Spatial Planning gives geographical expression to the economic, social, cultural and ecological policies of society... [it is a] comprehensive approach directed towards a balanced regional development and the physical organisation of space according to an overall strategy.

-European Regional/Spatial Planning Charter

States and Spatial Planning

States have always taken space seriously.

$\Rightarrow$ Recent innovations (e.g. computational growth, GIS) have brought spatial planning to the forefront for policymakers and scholars alike.
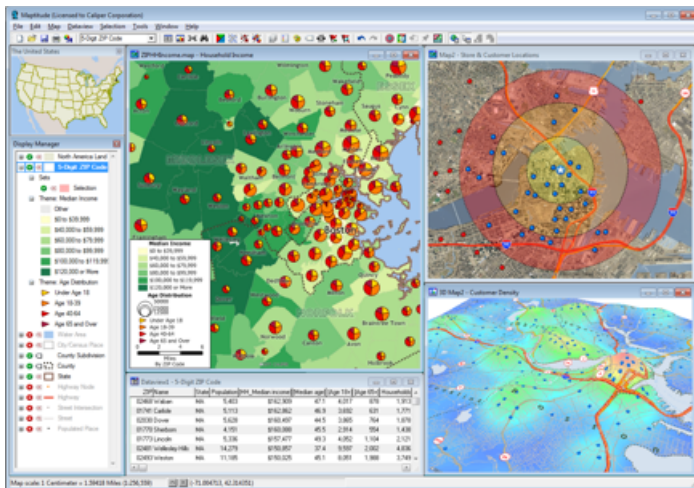
The Growth of the City-State

States in Pursuit of Control

New Frontiers of the Digital Age

Taking Space Seriously...

Over time, scholars have come to increasingly integrate spatial relationships in sophisticated and novel ways:

- **Urban Planning:** optimal design of infrastructure (e.g. roads, water)
- **Economics:** supply chains, location of firms
- **Sociology:** housing and neighborhood sorting, conflict
- **Political Science:** the diffusion of ideas, targeting of policies and other services

... And Why it Matters

In short, space matters in profound ways:

- **Proximate Effects:** Access to goods, services ⇒ welfare, quality of life
- **Downstream Effects:** Segregation, state capacity ⇒ inter-group relations, views on the state

Moving Beyond the West

So what?

Moving Beyond the West

1. The importance of spatial relationships is not unique to the West, but...
2. Context matters!

Moving Beyond the West

Qatar is an ideal case for spatial analysis!

Qatar as Municipalities

Qatar as Municipalities
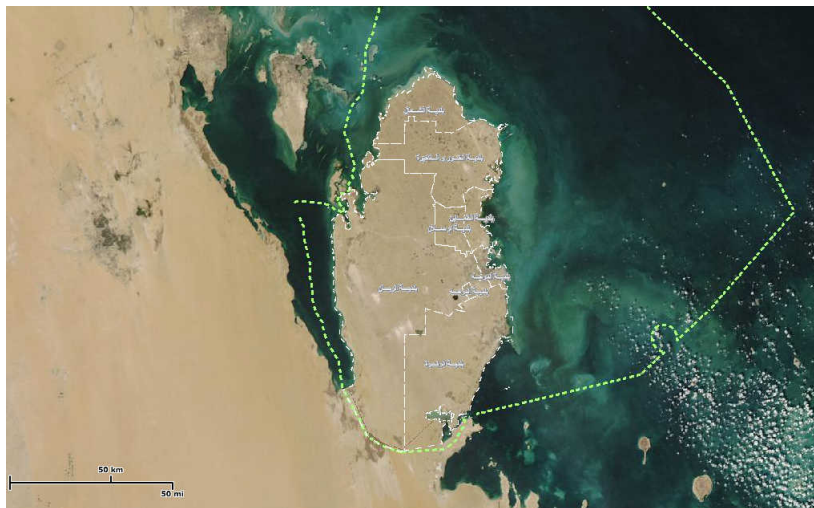
Qatar as Zones
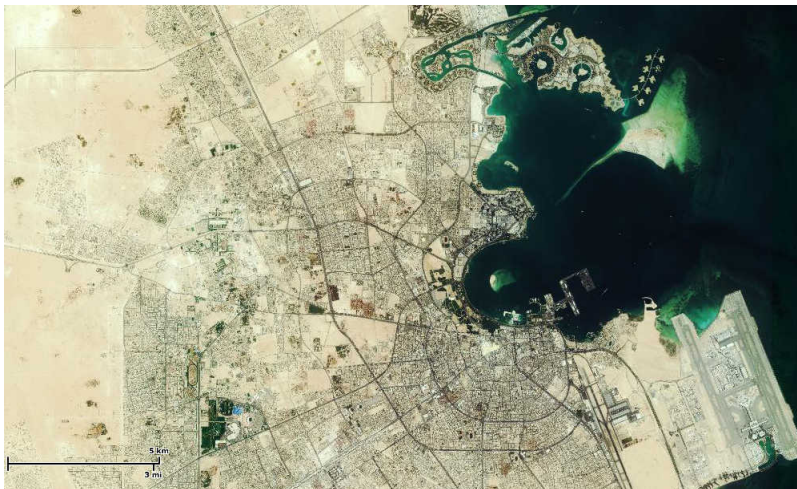
Qatar as Zones
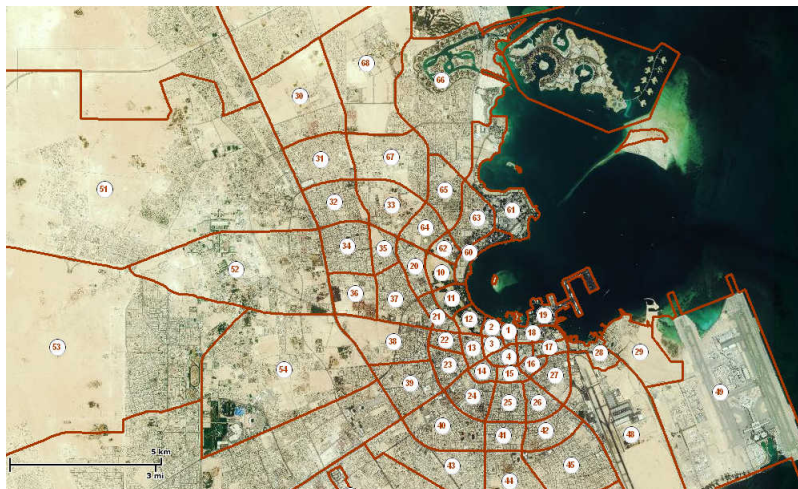
Qatar as Districts
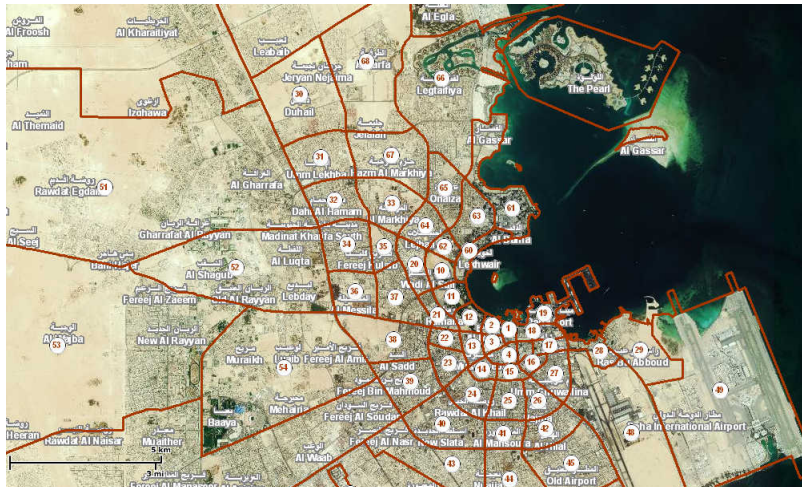
Qatar as Neighborhoods
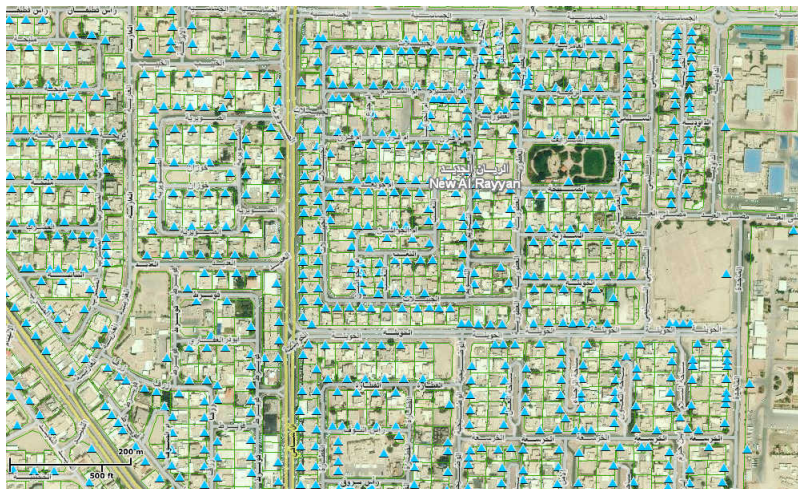
Qatar as Neighborhoods

Qatar as Households

Qatar as Households

Old Questions and New Methods

Development-driven spatial planning has brought sweeping change to Qatar over the past few decades.

> ⇒ What are the effects of these changes, intended or otherwise, on social capital?

The Formation of Social Capital

Social Capital: the value derived from interpersonal connections and community relationships.

- Begins at the local level...
- But scales up!

$\Rightarrow$ To understand the formation of social capital, we have to begin with the spatial context in which individuals interact.

Qatar: The Developmental State

1. **Ethnic Enclaves:** Erosion of traditional relationships ⇒ More insular and homogeneous communities
2. **Melting Pots:** Natives, expats and migrants mixing ⇒ contact increases, inter-group relations improve

⇒ These effects, while competing, need not be mutually exclusive– different scales!

Taking Stock

What do we want: Explore the *dynamic* effects of spatial planning on social capital

What do we have: 2010 Social Capital Survey, Qatar GIS Database

What don't we have: Time-Serial data

To the Data!

Dependent Variables: Neighbor friends, Different friends,
Family gatherings, Trust, Trust Others

Independent Variables: Communal, Majority mixed,
Communal*Majority mixed

Controls: Married, Age, Male, Education, High, Low

Neighbor Friends

VARIABLES	(1) neighbor_friends	(2) neighbor_friends	(3) neighbor_friends
communal		2.101***	2.199***
		(0.300)	(0.311)
married	0.0993	0.0926	0.104
	(0.195)	(0.177)	(0.177)
age	-0.00138	0.00725	0.00732
	(0.00659)	(0.00638)	(0.00642)
male	-0.0302	-0.0672	-0.0603
	(0.116)	(0.121)	(0.121)
education	-0.0538	-0.0569	-0.0669*
	(0.0398)	(0.0374)	(0.0376)
high	-0.542***	-0.577***	-0.552***
	(0.132)	(0.135)	(0.135)
low	0.115	-1.183***	-1.241***
	(0.207)	(0.270)	(0.276)
majority_mixed			-0.0933
			(0.201)
communal*mixed			-2.103***
			(0.578)
Constant	-0.119	-0.466	-0.428
	(0.295)	(0.289)	(0.290)
Observations	2,214	2,214	2,214

Logistic Regression with Survey Weights
*** p<0.01, ** p<0.05, * p<0.1

Different Friends

VARIABLES	(1) different_friends	(2) different_friends	(3) different_friends
communal		-0.519	-0.588
		(0.464)	(0.475)
married	-0.816***	-0.846***	-0.856***
	(0.257)	(0.253)	(0.253)
age	0.00818	0.00692	0.00695
	(0.00879)	(0.00880)	(0.00882)
male	-0.0267	-0.0197	-0.0262
	(0.166)	(0.167)	(0.167)
education	-0.00962	-0.0100	-0.00363
	(0.0574)	(0.0581)	(0.0582)
high	2.032***	2.050***	2.039***
	(0.227)	(0.226)	(0.226)
low	0.863***	1.213**	1.250**
	(0.324)	(0.492)	(0.490)
majority_ mixed			0.0216
			(0.282)
communal*mixed			0.913
			(0.720)
Constant	-2.646***	-2.573***	-2.596***
	(0.423)	(0.411)	(0.414)
Observations	2,031	2,031	2,031

Logistic Regression with Survey Weights
*** p<0.01, ** p<0.05, * p<0.1

Family Gatherings

VARIABLES	(1) family_gatherings	(2) family_gatherings	(3) family_gatherings
communal		-0.548**	-0.520**
		(0.252)	(0.258)
married	-0.0451	-0.0430	-0.0375
	(0.165)	(0.157)	(0.158)
age	-0.00160	-0.00407	-0.00397
	(0.00542)	(0.00522)	(0.00523)
male	0.0435	0.0558	0.0573
	(0.102)	(0.102)	(0.102)
education	-0.0499	-0.0476	-0.0509
	(0.0326)	(0.0318)	(0.0318)
high	-1.150***	-1.152***	-1.147***
	(0.114)	(0.113)	(0.113)
low	-3.819***	-3.561***	-3.577***
	(0.222)	(0.204)	(0.204)
majority_ mixed			-0.0673
			(0.167)
communal*mixed			-0.816
			(0.591)
Observations	2,184	2,184	2,184

Ordered Logit with Survey Weights
*** p<0.01, ** p<0.05, * p<0.1

Trust

VARIABLES	(1) trust	(2) trust	(3) trust
communal		0.947***	0.990***
		(0.299)	(0.305)
married	-0.273	-0.293	-0.288
	(0.219)	(0.209)	(0.209)
age	0.00780	0.0128*	0.0128*
	(0.00764)	(0.00749)	(0.00752)
male	0.527***	0.510***	0.517***
	(0.128)	(0.130)	(0.130)
education	0.0882*	0.0892*	0.0839*
	(0.0466)	(0.0458)	(0.0458)
high	0.650***	0.645***	0.662***
	(0.142)	(0.144)	(0.144)
low	1.032***	0.491*	0.485*
	(0.217)	(0.277)	(0.278)
majority_mixed			0.130
			(0.219)
communal*mixed			-1.229**
			(0.530)
Constant	-2.112***	-2.323***	-2.319***
	(0.328)	(0.336)	(0.337)
Observations	2,200	2,200	2,200

Logistic Regression with Survey Weights

*** p<0.01, ** p<0.05, * p<0.1

Trust Other Groups

VARIABLES	(1) trust_others	(2) trust_others	(3) trust_others
communal		-1.680***	-1.685***
		(0.245)	(0.247)
married	0.103	0.126	0.126
	(0.187)	(0.173)	(0.173)
age	0.0156***	0.00885*	0.00883*
	(0.00555)	(0.00500)	(0.00500)
male	0.491***	0.518***	0.518***
	(0.109)	(0.109)	(0.109)
education	0.103**	0.102***	0.102***
	(0.0411)	(0.0357)	(0.0358)
high	1.333***	1.346***	1.345***
	(0.126)	(0.124)	(0.124)
low	2.293***	3.246***	3.250***
	(0.185)	(0.254)	(0.255)
majority_mixed			0.0243
			(0.174)
communal*mixed			0.106
			(0.496)
Constant	3.015***	3.300***	3.297***
	(0.287)	(0.261)	(0.261)
Observations	2,187	2,187	2,187
R-squared	0.247	0.307	0.307

Regression with Survey Weights

*** p<0.01, ** p<0.05, * p<0.1

Preliminary Results

In summary, we have suggestive evidence that:

1. Communal living makes neighbors closer, decreases family contact; no evidence on diversity of friends
2. Communal living within mixed areas decreases neighbor bonds
3. Communal living increases general trust but decreases trust of other groups
4. Communal living within mixed areas decreases general trust

Future Work

Next steps in this research agenda:

1. Integrate GIS and spatial econometrics.
2. Incorporate distributive goods.

Integrating GIS

How do we do it?

1. Match survey respondents to GPS coordinates.
2. Construct spatial weights matrix from GPS.
3. Re-estimate results with spatial lag, instrumental variables or MLE.

Integrating GIS

What are the benefits?

1. More granular measure of spatial relationship
2. Modeling diffusion and contagion effects

Conclusion

Thanks!