EXPERIMENTAL EVIDENCE OF NEIGHBOURHOOD EFFECTS ON EDUCATION: THE CASE OF THE 2004 ATHENS OLYMPIC VILLAGE

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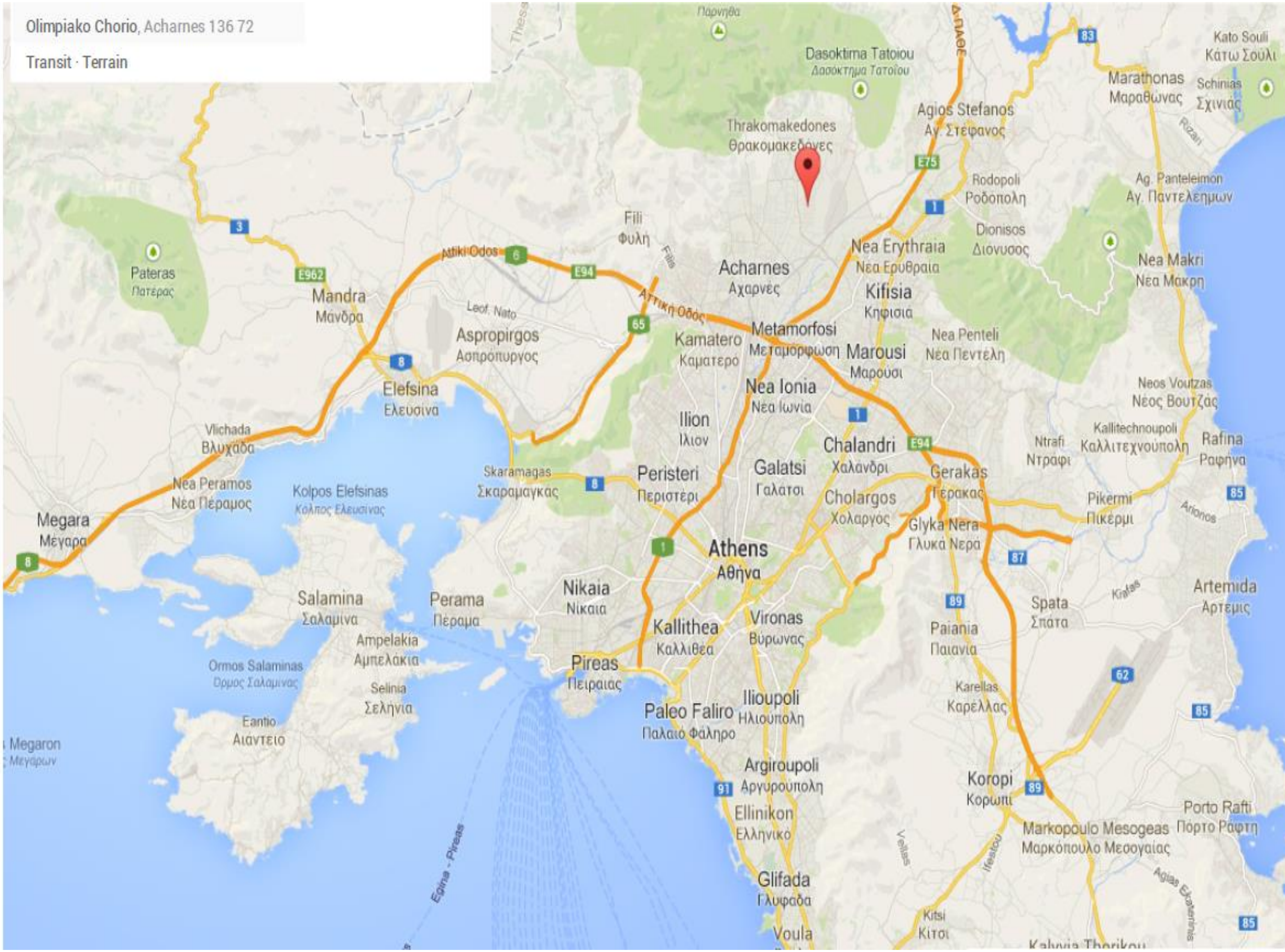
The story of 2004 Athens Olympic Village

- Construction of the 2004 Olympic Village was simply the largest ever urban - residential work in Greece
- Purpose of OV twofold: (1) to host the members of the athletic delegations who took part in the 2004 Olympic and Paralympic Games, and (2) to ensure its post-Olympic utilization for the Working House Organization beneficiaries residing in Attica.
- Post- Olympics: OV apartments were given to WHO elidgible applicants through a random lottery procedure. 17,859 beneficiaries participated in the lottery and 2,292 were selected (approx. 10,000 people)
- Selected families were given government-guaranteed loans under very favorable terms and eventually got ownership of these properties.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Thrakomakedones
Θρακομακεδόνες
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Αγ. Στέφανος
Marathonas
Μαραθώνας
Kato Souli
Κάτω Σούλι
Schinias
Σχινιάς
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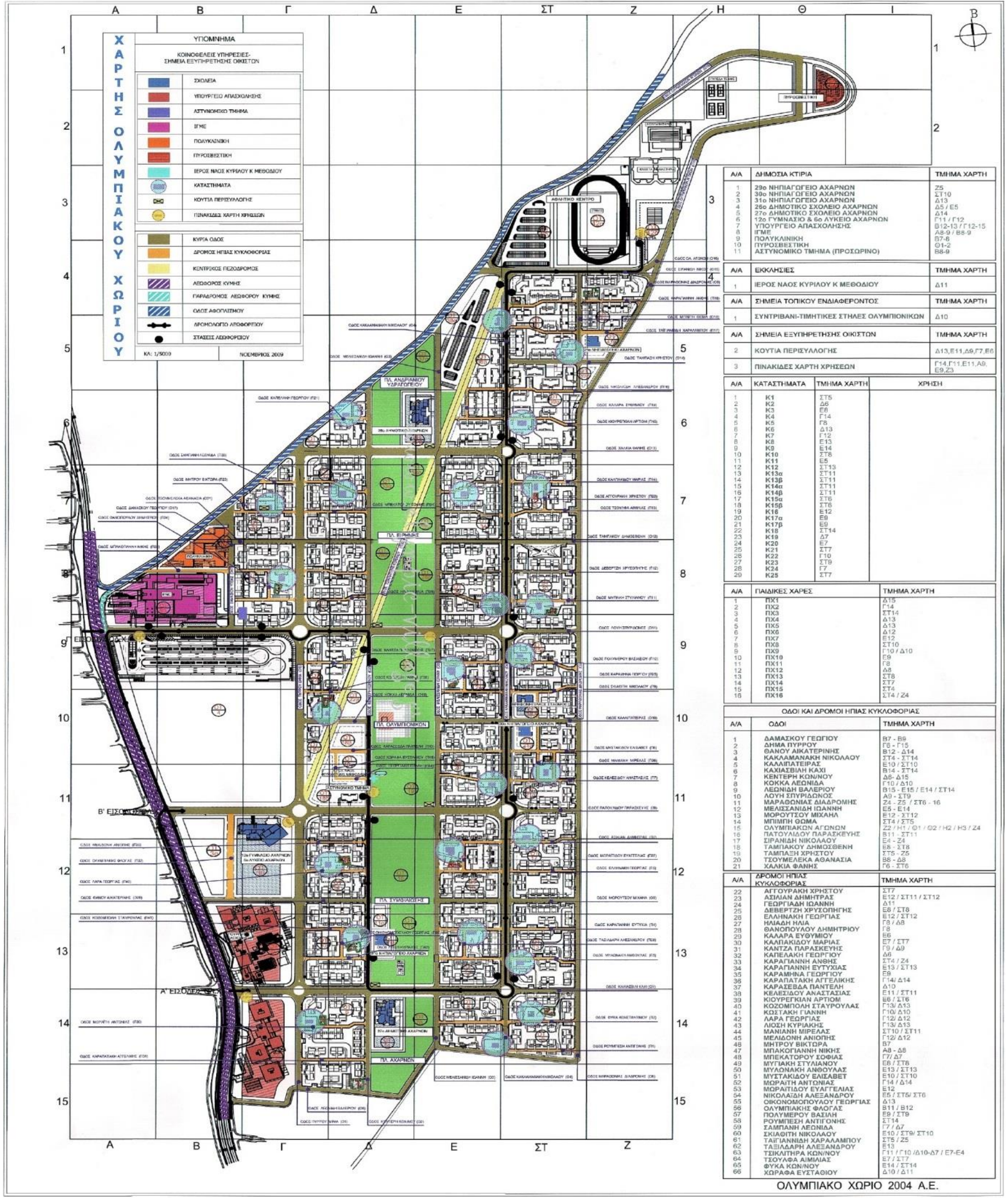
Acharnes
Αχαρνές
Nea Erythraia
Νέα Ερυθραία
Kifisia
Κηφισιά
Nea Makri
Νέα Μάκρη
Pateras
Πατέρας
Mandra
Μάνδρα
Attiki Odos
Αττική Οδός
Leof. Nato
Aspropirgos
Ασπρόπυργος
Kamatero
Καματερό
Metamorfosi
Μεταμόρφωση
Marousi
Μαρούσι
Nea Penteli
Νέα Πεντέλη
Elefsina
Ελευσίνα
Nea Ionia
Νέα Ιωνία
Neos Voutzas
Νέος Βουτζάς
Ilion
Ίλιον
Vlichada
Βλυχάδα
Chalandri
Χαλάνδρι
Ntrafi
Ντράφι
Kallitechnoupoli
Καλλιτεχνούπολη
Rafina
Ραφήνα
Skaramagas
Σκαραμαγκάς
Peristeri
Περιστέρι
Galatsi
Γαλάτσι
Gerakas
Γέρακας
Nea Peramos
Νέα Πέραμος
Kolpos Elefsinas
Κόλπος Ελευσίνας
Cholargos
Χολαργός
Pikermi
Πικέρμι
Megara
Μέγαρα
Glyka Nera
Γλυκά Νερά
Athens
Αθήνα
Salamina
Σαλαμίνα
Perama
Πέραμα
Nikaia
Νίκαια
Artemida
Αρτεμις
Spata
Σπάτα
Kallithea
Καλλιθέα
Vironas
Βύρωνας
Paiania
Παιανία
Ampelakia
Αμπελάκια
Ormos Salaminas
Όρμος Σαλαμίνας
Pireas
Πειραιάς
Selinia
Σελήνια
Karellas
Καρελλάς
Eantio
Αιάντειο
Ilioupoli
Ηλιούπολη
Paleo Faliro
Παλαιό Φάληρο
Megaron
Μεγάρων
Argiroupoli
Αργυρούπολη
Koropi
Κορωπί
Porto Rafti
Πόρτο Ραφτη
Ellinikon
Ελληνικό
Markopoulo Mesogeas
Μαρκόπουλο Μεσογαίας
Egina - Pireas
Glifada
Γλυφάδα
Kitsi
Κιτσι
Voula
Kalyvia Thorikou



Α/Α	ΔΗΜΟΣΙΑ ΚΤΙΡΙΑ	ΤΜΗΜΑ ΧΑΡΤΗ
1	29ο ΝΗΠΙΑΓΩΓΕΙΟ ΑΧΑΡΝΩΝ	Ζ5
2	30ο ΝΗΠΙΑΓΩΓΕΙΟ ΑΧΑΡΝΩΝ	ΣΤ10
3	31ο ΝΗΠΙΑΓΩΓΕΙΟ ΑΧΑΡΝΩΝ	Δ13
4	26ο ΔΗΜΟΤΙΚΟ ΣΧΟΛΕΙΟ ΑΧΑΡΝΩΝ	Δ5 / Ε5
5	27ο ΔΗΜΟΤΙΚΟ ΣΧΟΛΕΙΟ ΑΧΑΡΝΩΝ	Δ14
6	12ο ΓΥΜΝΑΣΙΟ & 6ο ΛΥΚΕΙΟ ΑΧΑΡΝΩΝ	Γ11 / Γ12
7	ΥΠΟΥΡΓΕΙΟ ΑΠΑΣΧΟΛΗΣΗΣ	Β12-13 / Γ12-15
8	ΙΓΜΕ	Α8-9 / Β8-9
9	ΠΟΛΥΚΛΙΝΙΚΗ	Β7-8
10	ΠΥΡΟΣΒΕΣΤΙΚΗ	Θ1-2
11	ΑΣΤΥΝΟΜΙΚΟ ΤΜΗΜΑ (ΠΡΟΣΩΡΙΝΟ)	Β8-9

Α/Α	ΕΚΚΛΗΣΙΕΣ	ΤΜΗΜΑ ΧΑΡΤΗ
1	ΙΕΡΟΣ ΝΑΟΣ ΚΥΡΙΛΟΥ Κ ΜΕΘΟΔΙΟΥ	Δ11

Α/Α	ΣΗΜΕΙΑ ΤΟΠΙΚΟΥ ΕΝΔΙΑΦΕΡΟΝΤΟΣ	ΤΜΗΜΑ ΧΑΡΤΗ
1	ΣΥΝΤΡΙΒΑΝΙ-ΤΙΜΗΤΙΚΕΣ ΣΤΗΛΕΣ ΟΛΥΜΠΙΟΝΙΚΩΝ	Δ10

Α/Α	ΣΗΜΕΙΑ ΕΞΥΠΗΡΕΤΗΣΗΣ ΟΙΚΙΣΤΩΝ	ΤΜΗΜΑ ΧΑΡΤΗ
2	ΚΟΥΤΙΑ ΠΕΡΙΣΥΛΛΟΓΗΣ	Δ13,Ε11,Δ9,Γ7,Ε6
3	ΠΙΝΑΚΙΔΕΣ ΧΑΡΤΗ ΧΡΗΣΕΩΝ	Γ14,Γ11,Ε11,Α9, Ε9,Ζ3

Α/Α	ΚΑΤΑΣΤΗΜΑΤΑ	ΤΜΗΜΑ ΧΑΡΤΗ	ΧΡΗΣΗ
1	Κ1	ΣΤ5	
2	Κ2	Δ6	
3	Κ3	Ε8	
4	Κ4	Γ14	
5	Κ5	Γ8	
6	Κ6	Δ13	
7	Κ7	Γ12	
8	Κ8	Ε13	
9	Κ9	Ε14	
10	Κ10	ΣΤ8	
11	Κ11	Ε5	
12	Κ12	ΣΤ13	
13	Κ13α	ΣΤ11	
14	Κ13β	ΣΤ11	
15	Κ14α	ΣΤ11	
16	Κ14β	ΣΤ11	
17	Κ15α	ΣΤ6	
18	Κ15β	ΣΤ6	
19	Κ16	Ε12	
20	Κ17α	Ε9	
21	Κ17β	Ε9	
22	Κ18	ΣΤ14	
23	Κ19	Δ7	
24	Κ20	Ε7	
25	Κ21	ΣΤ7	
26	Κ22	Γ10	
27	Κ23	ΣΤ9	
28	Κ24	Γ7	
29	Κ25	ΣΤ7	

Α/Α	ΠΑΙΔΙΚΕΣ ΧΑΡΕΣ	ΤΜΗΜΑ ΧΑΡΤΗ
1	ΠΧ1	Δ15
2	ΠΧ2	Γ14
3	ΠΧ3	ΣΤ14
4	ΠΧ4	Δ13
5	ΠΧ5	Δ13
6	ΠΧ6	Δ12
7	ΠΧ7	Ε12
8	ΠΧ8	ΣΤ10
9	ΠΧ9	Γ10 / Δ10
10	ΠΧ10	Ε9
11	ΠΧ11	Γ8
12	ΠΧ12	Δ8
13	ΠΧ13	ΣΤ8
14	ΠΧ14	ΣΤ7
15	ΠΧ15	ΣΤ4
16	ΠΧ16	ΣΤ4 / Ζ4

ΟΔΟΙ ΚΑΙ ΔΡΟΜΟΙ ΗΠΙΑΣ ΚΥΚΛΟΦΟΡΙΑΣ

Α/Α	ΟΔΟΙ	ΤΜΗΜΑ ΧΑΡΤΗ
1	ΔΑΜΑΣΚΟΥ ΓΕΩΓΙΟΥ	Β7 - Β9
2	ΔΗΜΑ ΠΥΡΡΟΥ	Γ6 - Γ15
3	ΘΑΝΟΥ ΑΙΚΑΤΕΡΙΝΗΣ	Β12 - Δ14
4	ΚΑΚΛΑΜΑΝΑΚΗ ΝΙΚΟΛΑΟΥ	ΣΤ4 - ΣΤ14
5	ΚΑΛΛΙΠΑΤΕΙΡΑΣ	Ε10 / ΣΤ10
6	ΚΑΧΙΑΣΒΙΛΗ ΚΑΧΙ	Β14 - ΣΤ14
7	ΚΕΝΤΕΡΗ ΚΩΝ/ΝΟΥ	Δ6- Δ15
8	ΚΟΚΚΑ ΛΕΩΝΙΔΑ	Γ10 / Δ10
9	ΛΕΩΝΙΔΗ ΒΑΛΕΡΙΟΥ	Β15 - Ε15 / Ε14 / ΣΤ14
10	ΛΟΥΗ ΣΠΥΡΙΔΩΝΟΣ	Α9 - ΣΤ9
11	ΜΑΡΑΘΩΝΙΑΣ ΔΙΑΔΡΟΜΗΣ	Ζ4 - Ζ5 / ΣΤ6 - 16
12	ΜΕΛΙΣΣΑΝΙΔΗ ΙΩΑΝΝΗ	Ε5 - Ε14
13	ΜΟΡΟΥΤΣΟΥ ΜΙΧΑΗΛ	Ε12 - ΣΤ12
14	ΜΠΙΜΠΗ ΘΩΜΑ	ΣΤ4 / ΣΤ5
15	ΟΛΥΜΠΙΑΚΩΝ ΑΓΩΝΩΝ	Ζ2 / Η1 / Θ1 / Θ2 / Η2 / Η3 / Ζ4
16	ΠΑΤΟΥΛΙΔΟΥ ΠΑΡΑΣΚΕΥΗΣ	Β11 - ΣΤ11
17	ΣΙΡΑΝΙΔΗ ΝΙΚΟΛΑΟΥ	Ε4 - Ζ4
18	ΤΑΜΠΑΚΟΥ ΔΗΜΟΣΘΕΝΗ	Ε8 - ΣΤ8
19	ΤΑΜΠΑΞΗ ΧΡΗΣΤΟΥ	ΣΤ5 - Ζ5
20	ΤΣΟΥΜΕΛΕΚΑ ΑΘΑΝΑΣΙΑ	Β8 - Δ8
21	ΧΑΛΚΙΑ ΦΑΝΗΣ	Γ6 - ΣΤ6

Α/Α	ΔΡΟΜΟΙ ΗΠΙΑΣ ΚΥΚΛΟΦΟΡΙΑΣ	ΤΜΗΜΑ ΧΑΡΤΗ
22	ΑΓΓΟΥΡΑΚΗ ΧΡΗΣΤΟΥ	ΣΤ7
23	ΑΣΙΛΙΑΝ ΔΗΜΗΤΡΑΣ	Ε12 / ΣΤ11 / ΣΤ12
24	ΓΕΩΡΓΙΑΔΗ ΙΩΑΝΝΗ	Δ11
25	ΔΕΒΕΡΤΖΗ ΧΡΥΣΟΠΗΓΗΣ	Ε8 / ΣΤ8
26	ΕΛΛΗΝΑΚΗ ΓΕΩΡΓΙΑΣ	Ε12 / ΣΤ12
27	ΗΛΙΑΔΗ ΗΛΙΑ	Γ8 / Δ8
28	ΘΑΝΟΠΟΥΛΟΥ ΔΗΜΗΤΡΙΟΥ	Γ8
29	ΚΑΛΑΡΑ ΕΥΘΥΜΙΟΥ	Ε6
30	ΚΑΛΠΑΚΙΔΟΥ ΜΑΡΙΑΣ	Ε7 / ΣΤ7
31	ΚΑΝΤΖΑ ΠΑΡΑΣΚΕΥΗΣ	Γ9 / Δ9
32	ΚΑΠΕΛΑΚΗ ΓΕΩΡΓΙΟΥ	Δ6
33	ΚΑΡΑΓΙΑΝΝΗ ΑΝΘΗΣ	ΣΤ4 / Ζ4
34	ΚΑΡΑΓΙΑΝΝΗ ΕΥΤΥΧΙΑΣ	Ε13 / ΣΤ13
35	ΚΑΡΑΜΗΝΑ ΓΕΩΡΓΙΟΥ	Ε9
36	ΚΑΡΑΠΑΤΑΚΗ ΑΓΓΕΛΙΚΗΣ	Γ14/ Δ14
37	ΚΑΡΑΣΕΒΔΑ ΠΑΝΤΕΛΗ	Δ10
38	ΚΕΛΕΣΙΔΟΥ ΑΝΑΣΤΑΣΙΑΣ	Ε11 / ΣΤ11
39	ΚΙΟΥΡΕΓΚΙΑΝ ΑΡΤΙΟΜ	Ε6 / ΣΤ6
40	ΚΟΖΟΜΠΟΛΗ ΣΤΑΥΡΟΥΛΑΣ	Γ13/ Δ13
41	ΚΩΣΤΑΚΗ ΓΙΑΝΝΗ	Γ10/ Δ10
42	ΛΑΡΑ ΓΕΩΡΓΙΑΣ	Γ12/ Δ12
43	ΛΙΟΣΗ ΚΥΡΙΑΚΗΣ	Γ13/ Δ13
44	ΜΑΝΙΑΝΗ ΜΙΡΕΛΑΣ	ΣΤ10 / ΣΤ11
45	ΜΕΛΙΔΟΝΗ ΑΝΙΟΠΗΣ	Γ12/ Δ12
46	ΜΗΤΡΟΥ ΒΙΚΤΩΡΑ	Β7
47	ΜΠΑΚΟΓΙΑΝΝΗ ΝΙΚΗΣ	Α8 - Δ8
48	ΜΠΕΚΑΤΟΡΟΥ ΣΟΦΙΑΣ	Γ7/ Δ7
49	ΜΥΓΙΑΚΗ ΣΤΥΛΙΑΝΟΥ	Ε8 / ΣΤ8
50	ΜΥΛΩΝΑΚΗ ΑΝΘΟΥΛΑΣ	Ε13 / ΣΤ13
51	ΜΥΣΤΑΚΙΔΟΥ ΕΛΙΣΑΒΕΤ	Ε10 / ΣΤ10
52	ΜΩΡΑΪΤΗ ΑΝΤΩΝΙΑΣ	Γ14 / Δ14
53	ΜΩΡΑΪΤΙΔΟΥ ΕΥΑΓΓΕΛΙΑΣ	Ε12
54	ΝΙΚΟΛΑΪΔΗ ΑΛΕΞΑΝΔΡΟΥ	Ε5 / ΣΤ5/ ΣΤ6
55	ΟΙΚΟΝΟΜΟΠΟΥΛΟΥ ΓΕΩΡΓΙΑΣ	Δ13
56	ΟΛΥΜΠΙΑΚΗΣ ΦΛΟΓΑΣ	Β11 / Β12
57	ΠΟΛΥΜΕΡΟΥ ΒΑΣΙΛΗ	Ε9 / ΣΤ9
58	ΡΟΥΜΠΕΣΗ ΑΝΤΙΓΟΝΗΣ	ΣΤ14
59	ΣΑΜΠΑΝΗ ΛΕΩΝΙΔΑ	Γ7 / Δ7
60	ΣΚΙΑΘΙΤΗ ΝΙΚΟΛΑΟΥ	Ε10 / ΣΤ9/ ΣΤ10
61	ΤΑΪΓΙΑΝΝΙΔΗ ΧΑΡΑΛΑΜΠΟΥ	ΣΤ5 / Ζ5
62	ΤΑΞΙΛΔΑΡΗ ΑΛΕΞΑΝΔΡΟΥ	Ε13
63	ΤΣΙΚΛΙΤΗΡΑ ΚΩΝ/ΝΟΥ	Γ11 / Γ10 /Δ10-Δ7 / Ε7-Ε4
64	ΤΣΟΥΛΦΑ ΑΙΜΙΛΙΑΣ	Ε7 / ΣΤ7
65	ΦΥΚΑ ΚΩΝ/ΝΟΥ	Ε14 / ΣΤ14
66	ΧΩΡΑΦΑ ΕΥΣΤΑΘΙΟΥ	Δ10 / Δ11

ΟΛΥΜΠΙΑΚΟ ΧΩΡΙΟ 2004 Α.Ε.

Why do we care?

- Unique natural experiment
- Key differences from previous experiments:
  - new neighbourhood
  - all together, large numbers
  - not part of an experiment
- Interesting environment to study neighbourhood effects
- Can look at: economic outcomes (employment, savings, investment), health outcomes, entrepreneurship. Now: education

Literature

- Non-experimental work: consensus that n’hood effects are positive and economically sizable
- However: endogenous selection
- Ellen and Turner (1997): statistical analysis of observational data provides only limited support for the importance of n’hood effects.

Literature

- Jacob (2004): exogenous variation by public housing demolitions in Chicago: no significant differences in test scores or dropout rates
- Oreopoulos (2003): long run labour market effects of people assigned to different public housing projects in Toronto: no n'hood effect, family matters most
- MTO: randomized housing mobility project in the US (Chicago, New York, Los Angeles, Boston and Baltimore): no average effect; girls positive, boys negative impact

This paper

- Education outcomes: performance of junior and high school students (12-18 years old)

- Compare performance of students
  - whose families got into the lottery and were selected (treatment)
  - whose families got into the lottery but were not selected (matched control)

Data

- Period: 2002-2012 (OV starts in 2006)
- Collected grades per course and overall average for all OV students
- Then went back to the schools they came from and collected their grades and their classmates' grades
- Control: matched surname & n'hood
- Combine other datasets on: pollution, urbanization, income

Methodology

- Difference-in-Differences framework:

$$performance_{ijt} = b_0 + b_1 Post_{it} + b_2 Treat_i + b_3 Post_{it} \times Treat_i + X_{ijt} d + e_{ijt}$$

for student *i*, in grade *j*, at time *t*

- Controls: grade, year & student FE
- Standard errors clustered at the (original) school level

Sample breakdown

	# students	# observations
Treated	153	650
Matched Group	340	752
OnlyOV	1036	2796
Results sample	**1529**	**4198**

Sample selection tests

Two sample selection tests on performance:

- ✓ Before going to OV: are the students who we know that are going to OV different from their classmates?
- ➢ Answer: NO (by course grade & overall grade)

- ✓ After going to OV: are the students for which we have their past history different from their classmates?
- ➢ Answer: NO

Control and Treatment (unique match)

	(1)	(2)	(3)	(4)	(5)	(6)
	Overall	Language index	Ancient Greek	Modern Greek	Science index	Maths
Treat x Post	0.470***	1.005***	1.013***	0.945***	0.368*	0.158
	(0.151)	(0.185)	(0.225)	(0.217)	(0.203)	(0.289)
Observations	4,104	4,104	4,104	4,104	4,104	4,104
R-squared	0.435	0.207	0.206	0.206	0.445	0.289
Number of id	1,468	1,468	1,468	1,468	1,468	1,468
Number of clusters	111	111	111	111	111	111

What is the channel for this positive effect?

Trying to uncover the channel through which this positive effect appears we explore three general categories:

- ✓ Is it neighbourhood characteristics?
- ✓ Is it family characteristics? (not presented today)
- ✓ Is it personal characteristics?

Benefit more if coming from a low-income neighbourhood? No!

- Is it n'hood wealth?

Use average declared income by post code (2011) to measure wealth

Y= Overall Average	(1)	(2)
	Median	25th prc.
treat x post x l_income	-0.188	-0.178
	(0.295)	(0.443)
Observations	4,198	4,198
Number of id	1,529	1,529
Adjusted R-squared	0.434	0.433
Number of clusters	113	113
Year FE	Yes	Yes
Grade FE	Yes	Yes
Student FE	Yes	Yes

Benefit more if coming from a more polluted n'hood? No!

❖ Is it n'hood pollution?

Use average SO_2 measures (2001-2004) to measure air pollution

Y= Overall Average	(1)	(2)
	Median	25th prc.
treat x post x l_pollution	0.110	0.246
	(0.291)	(0.305)
Observations	4,198	4,198
Number of id	1,529	1,529
Adjusted R-squared	0.433	0.433
Number of clusters	113	113
Year FE	Yes	Yes
Grade FE	Yes	Yes
Student FE	Yes	Yes

Benefit more if coming from a more densely populated n'hood? No!

- Is it n'hood urbanization?

Use relevant population survey to measure density in previous n'hood

Y= Overall Average	(1)	(2)
	Median	25th prc.
treat x post x l_urban	0.123	0.422
	(0.292)	(0.294)
Observations	4,198	4,198
Number of id	1,529	1,529
Adjusted R-squared	0.433	0.433
Number of clusters	113	113
Year FE	Yes	Yes
Grade FE	Yes	Yes
Student FE	Yes	Yes

Benefit more if close to your old neighbourhood? No!

❖ Is it distance? (close to your old friends?)

Use Google maps to measure distance of original school to OV

Y= Overall Average	(1)	(2)
	Median	25th prc.
treat x post x l_distance	-0.109	-0.0864
	(0.299)	(0.340)
Observations	4,198	4,198
Number of id	1,529	1,529
Adjusted R-squared	0.433	0.434
Number of clusters	113	113
Year FE	Yes	Yes
Grade FE	Yes	Yes
Student FE	Yes	Yes

Are girls different than boys? Maybe

- Separate the effects between girls and boys

	(1)	(2)	(3)	(4)	(5)	(6)
Y= Overall Average	Overall average	Language Index	Ancient Greek	Modern Greek	Science Index	Mathematics
treat x post x I_female	0.251	0.487*	0.778**	0.478	0.129	0.153
	(0.241)	(0.292)	(0.363)	(0.303)	(0.319)	(0.432)
Observations	4,198	4,198	4,198	4,198	4,198	4,198
Number of id	1,529	1,529	1,529	1,529	1,529	1,529
Adjusted R-squared	0.433	0.206	0.206	0.202	0.441	0.281
Number of clusters	113	113	113	113	113	113
Student FE	YES	YES	YES	YES	YES	YES
Grade FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

Benefit more if move in Gymnasio? Yes, in languages

Y= Overall Average	Overall average	Language Index	Ancient Greek	Modern Greek	Science Index	Mathematics
treat x post	0.0670	0.871***	1.038***	0.822***	-0.0832	-0.306
	(0.159)	(0.206)	(0.252)	(0.220)	(0.204)	(0.306)
Observations	2,599	2,599	2,599	2,599	2,599	2,599
Number of id	1,165	1,165	1,165	1,165	1,165	1,165
Adjusted R-squared	0.330	0.167	0.129	0.097	0.231	0.087
Number of clusters	71	71	71	71	71	71
Student FE	YES	YES	YES	YES	YES	YES
Grade FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

Benefit more if move in Lykeio? Yes!

	(1)	(2)	(3)	(4)	(5)	(6)
Y= Overall Average	Overall average	Language Index	Ancient Greek	Modern Greek	Science Index	Mathematics
treat x post	1.208***	1.257***	0.295	1.223***	0.883***	1.357***
	(0.238)	(0.355)	(0.399)	(0.398)	(0.289)	(0.435)
Observations	1,599	1,599	1,599	1,599	1,599	1,599
Number of id	733	733	733	733	733	733
Adjusted R-squared	0.496	0.271	0.152	0.276	0.285	0.179
Number of clusters	98	98	98	98	98	98
Student FE	YES	YES	YES	YES	YES	YES
Grade FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

Do all students benefit equally independent from their past? No!

- Does student previous performance matter?

Rank students according to their pre-OV performance (low, med, high)

	(1)	(2)
VARIABLES	Overall average	Overall average
treat x post	0.445***	0.0989
	(0.148)	(0.240)
treat x post x I_lowperf		1.053***
		(0.313)
treat x post x I_medperf		0.255
		(0.279)
Observations	4,198	4,198
Number of id	1,529	1,529
Adjusted R-squared	0.433	0.437
Number of clusters	113	113
Student FE	YES	YES
Grade FE	YES	YES
Year FE	YES	YES

Conclusions

- ✓ Unique natural experiment
- ✓ Students who moved to OV seem to benefit in terms of performance
- ✓ Different effects for those who moved in Gymnasio/ Lykeio
- ✓ No differences between boys and girls
- ✓ Students with worse previous performance seem to benefit more (fresh start?)

Thank you for your attention!