Physician fees and densities in Paris*

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May 25, 2016

Abstract:

This note compares the fees and densities of general practitioners and ophthalmologists in Paris. A large majority of ophthalmologists can freely chose their price policy (sector 2), while most general practitioners follow fee policies determined by law (sector 1). Using data from the French National Health Service, this note shows that the density and prices of sector 2 physicians, irrespective of their specialty, are strongly correlated to revenue at the Paris arrondissement level. Since most ophthalmologists are sector 2, the densities of ophthalmologists across arrondissements exhibit large inequalities, while general practitioners are more evenly geographically distributed.

*Data available upon request, all comments are welcome.

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1 Introduction

Local physician shortages are a growing health policy issue in France. Among the various specialties, ophthalmology is one of the most affected. It is also characterized by a high proportion of sector 2 practitioners, who are not subject to regulated fees. Conversely, most general practitioners belong to sector 1 and thus perceive fees determined by law. While the debate about healthcare regulation certainly belongs in the public sphere, the scarcity of information makes it difficult to develop an informed opinion. A most controversial issue is the extent to which healthcare is or should be a market.

This note compares the fees and densities of general practitioners and ophthalmologists in Paris. Prices of general practitioners are largely regulated, hence the only way to increase income for most of them is to increase the number of consultations. Conversely, many ophthalmologists freely chose their price policy. They can thus increase revenue through higher fees, which gives them an incentive to settle in wealthier areas.

Using data from the French National Health Service, this note shows that the densities and fees of sector 2 physicians, irrespective of their specialty, are strongly correlated to revenue at the Paris arrondissement level. Since most ophthalmologists are sector 2, the densities of ophthalmologists across arrondissements exhibit large inequalities, while general practitioners are more evenly distributed. Descriptive statistics are provided in appendix.

2 Data

Physician locations and fees were collected in 2014 from www.annuairesante.ameli.fr, a website operated by the French National Health Service meant to foster access to healthcare. The website includes all active physicians except for pure hospital practitioners. Data were aggregated at the "arrondissement" level in Paris, and matched with socio-demographic

data from the French 2010 national census and fiscal data. The variable used to account for population revenue by arrondissement is the median fiscal revenue by consumption unit (Household declared revenues are weighted according to OECD methodology). The share of people aged over 65 in the arrondissement is used to account for variations in demand related to ageing. The analysis focuses on basic consultation fees. Regarding sector 1 physicians, they amount to 23 euros for general practitioners, and 28 euros for ophthalmologists at the time of the study. In sector 2, the average fees in Paris are respectively 38 and 65 euros. Descriptive statistics are provided in tables 1 and 2. Data contain 2,488 general practitioners, of which 58% belong to sector 1, 35% belong to sector 2 and 7% to neither of them. Similarly, there are 450 listed ophthalmologists, of which 15% belong to sector 1 and 85% to sector 2.

3 General Practitioners

The density of GPs per inhabitant exhibits moderate dispersion across Paris arrondissements. A correlation with revenue can be most clearly observed for the density of sector 2 GPs i.e. physicans who choose their price policy. The same pattern can be observed with the average consultation price. Results of regressions of sector 2 GP densities and fees on revenue and share of people aged over 65 are provided in table 3.

Figure 1: Density of GPs vs. revenue by district

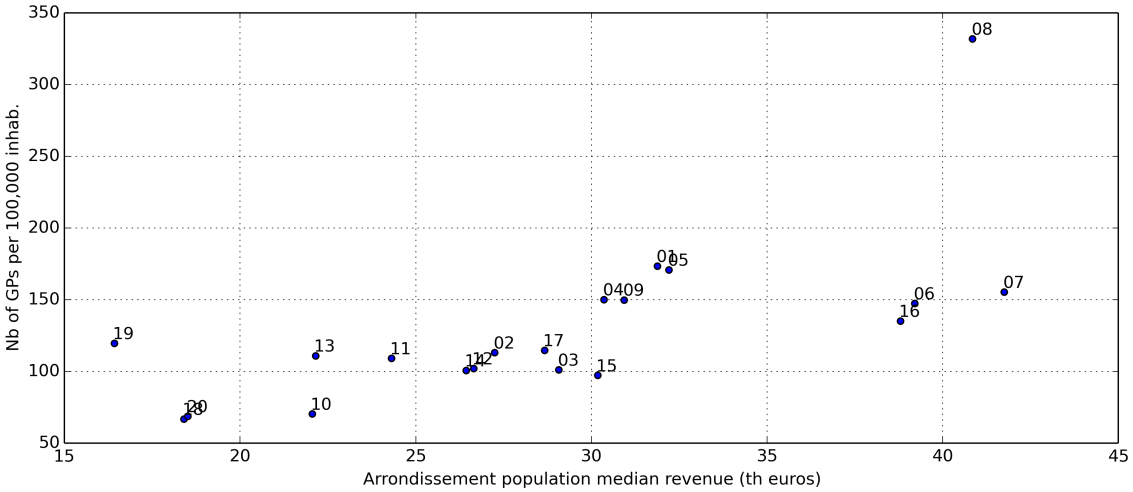


Figure 2: Density of sector 1 GPs vs. revenue by district

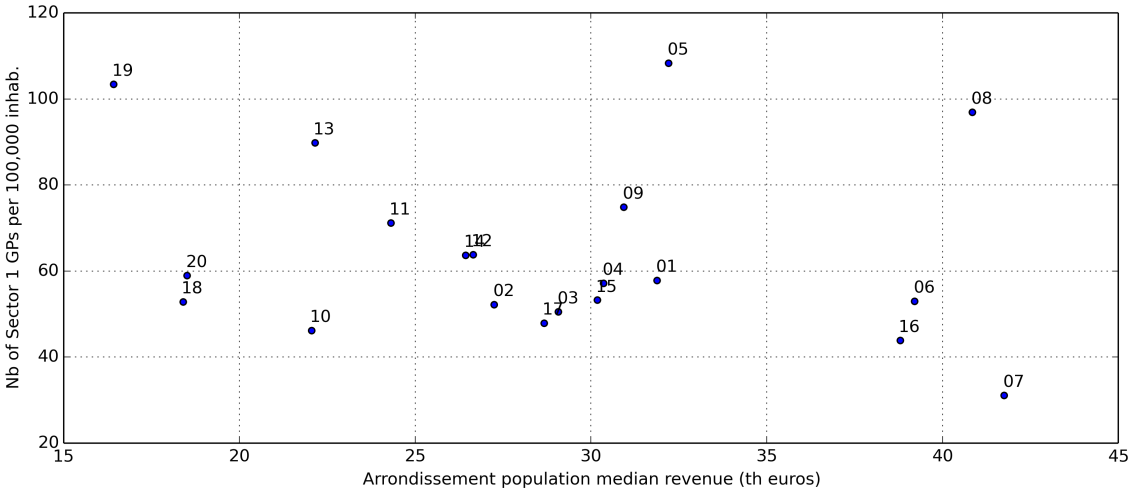


Figure 3: Density of sector 2 GPs vs. revenue by district

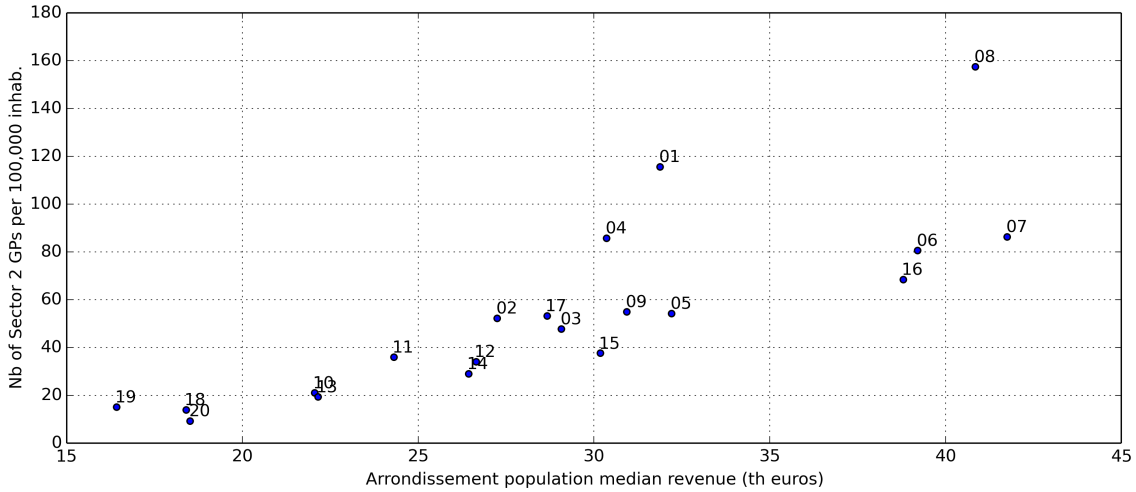
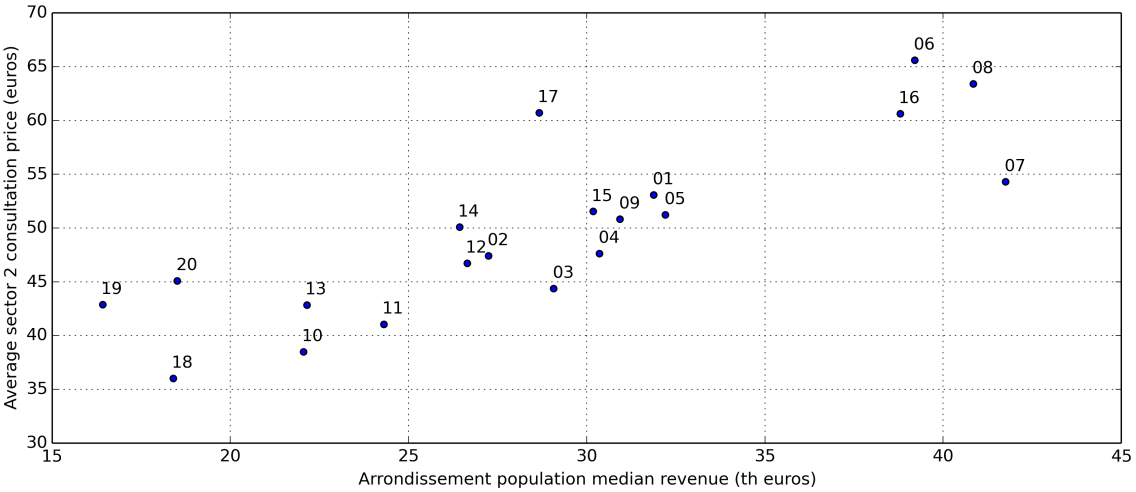


Figure 4: Sector 2 GP consultation fees vs. revenue by district



4 Ophthalmologists

The number of ophthalmologists per inhabitant exhibits stronger correlation with revenue than in the case of GPs. The density of sector 1 ophthalmologists is relatively stable

across districts, but these account for a small portion of ophthalmologists in Paris. Both the density of sector 2 ophthalmologists and their average consultation price are largely correlated with revenue. Results of regressions of sector 2 ophthalmologists densities and fees on revenue and share of people aged over 65 are provided in table 3.

Figure 5: Density ophtalmologists vs. revenue by district

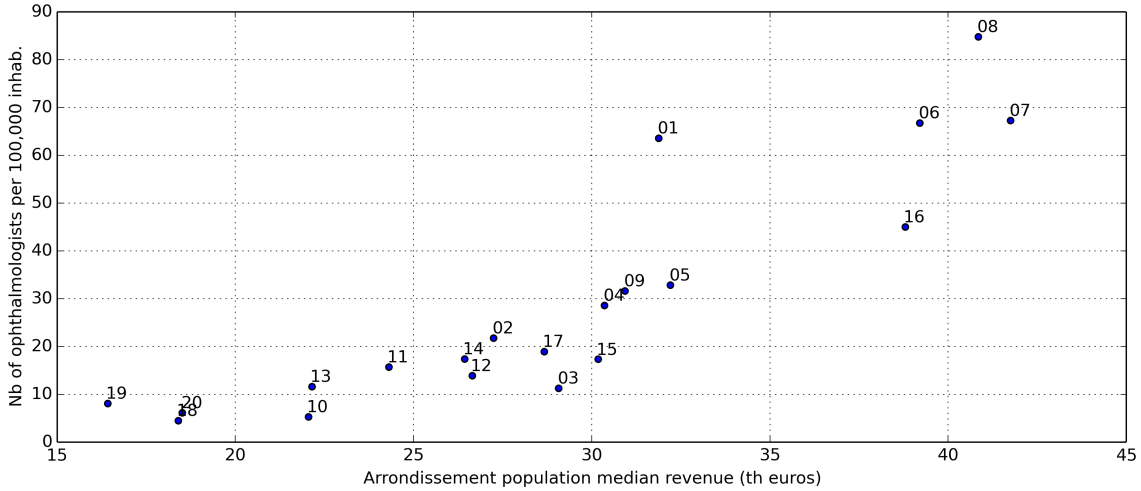


Figure 6: Density of sector 1 ophtalmologists vs. revenue by district

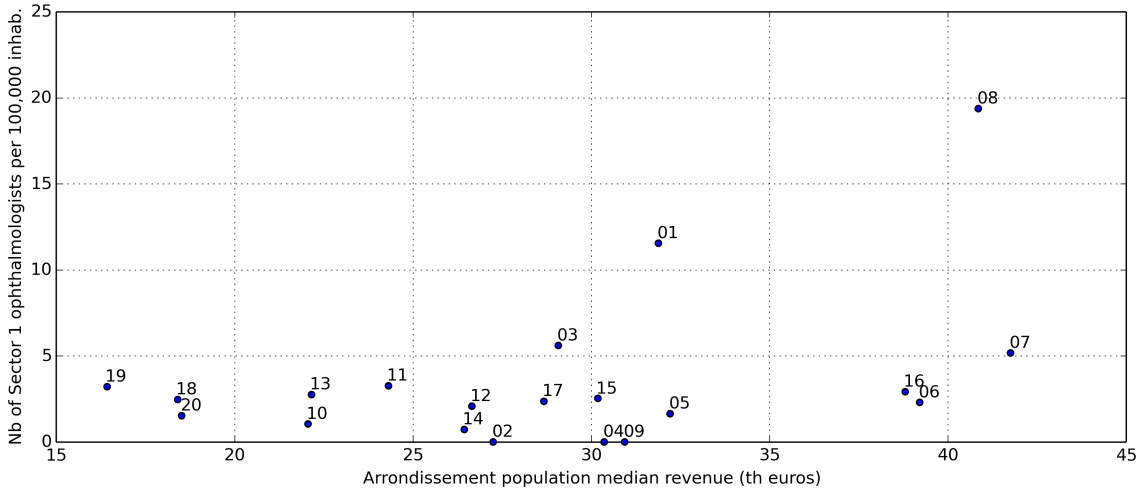


Figure 7: Density of sector 2 ophtalmologists vs. revenue by district

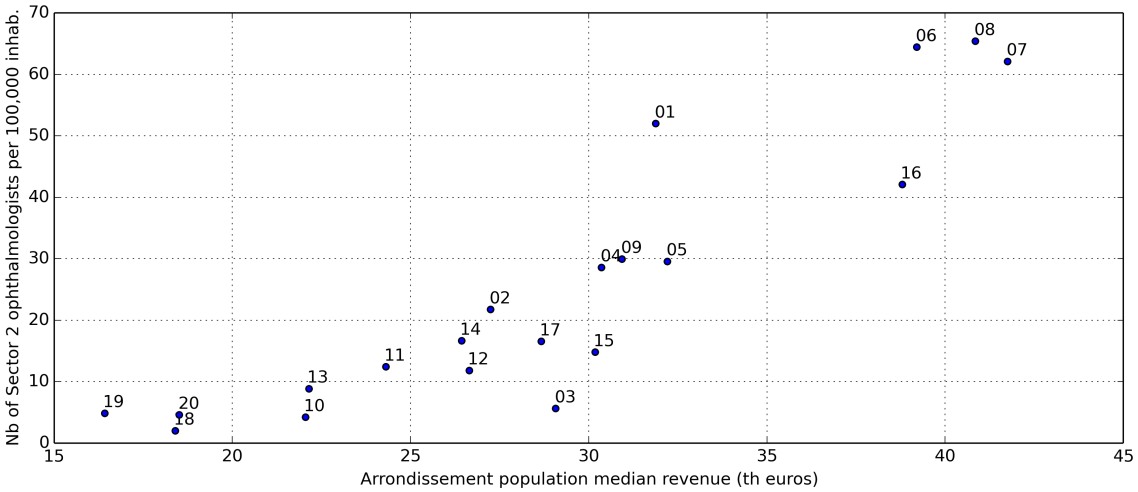
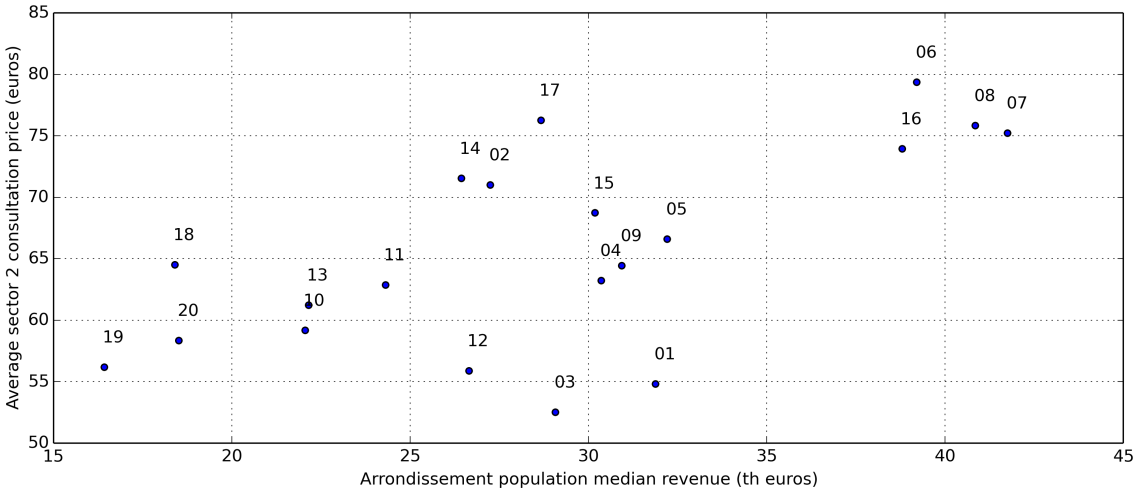


Figure 8: Sector 2 ophtalmologist fees vs. revenue by district



A Descriptive statistics

Table 1: Overview of general practitioners by arrondissement

Arrondissement	Pop. (th)	Aged 65+ (%)	Med. rev. (th euros)	Physsity	Sec. 2 density	Sec. 2 fee avg (euros)	Sec. 2 fee std (euros)
1	17	19	32	173	116	53	16
2	23	14	27	113	52	47	10
3	36	18	29	101	48	44	17
4	28	22	30	150	86	48	17
5	61	23	32	171	54	51	21
6	43	27	39	147	81	66	25
7	58	27	42	155	86	54	17
8	41	21	41	332	157	63	21
9	60	16	31	150	55	51	18
10	95	14	22	70	21	38	20
11	153	18	24	109	36	41	16
12	144	21	27	102	34	47	15
13	182	21	22	111	19	43	15
14	138	21	26	101	29	50	20
15	237	21	30	97	38	52	18
16	171	27	39	135	68	61	20
17	169	20	29	115	53	61	22
18	203	17	18	67	14	36	12
19	187	17	16	119	15	43	17
20	197	18	19	69	9	45	21
Tot.	2,244	20	25	111	38	52	20

Table 2: Overview of ophthalmologists by arrondissement

Arrondissement	Pop. (th)	Aged 65+ (%)	Med. rev. (th euros)	Phys. sity	Sec. 2 density	Sec. 2 fee avg (euros)	Sec. 2 fee std (euros)
1	17	19	32	64	52	55	30
2	23	14	27	22	22	71	17
3	36	18	29	11	6	52	18
4	28	22	30	29	29	63	8
5	61	23	32	30	30	67	12
6	43	27	39	33	64	79	32
7	58	27	42	67	62	75	13
8	41	21	41	85	65	76	18
9	60	16	31	32	30	64	10
10	95	14	22	5	4	59	14
11	153	18	24	16	12	63	11
12	144	21	27	14	12	56	13
13	182	21	22	12	9	61	10
14	138	21	26	17	17	72	11
15	237	21	30	17	15	69	20
16	171	27	39	45	42	74	18
17	169	20	29	19	17	76	15
18	203	17	18	4	2	64	3
19	187	17	16	8	5	56	9
20	197	18	19	6	5	58	6
Tot.	2,244	20	25	19	17	69	18

B Regressions

Table 3: Regression of density and fees

	Sector 2 Density		Sector 2 Fee	
	GP	Ophtalmo	GP	Ophtalmo
Constant	-33.19	−44.66	19.56	43.38
	[1.33]	[3.47]**	[3.44]**	[5.07]**
Pop 65+ (%)	-3.43	0.42	0.38	0.10
	[1.98]	[0.51]	[0.97]	[0.18]
Med. revenue	5.40	2.75	0.78	0.72
	[6.01]**	[6.51]**	[3.80]**	[2.55]*
Adj. R2	0.70	0.81	0.68	0.41
Nb. obs.	20	17	20	17

T-statistics in square brackets

** p < 1%, * p < 5%