In this section I describe the set of steps that I followed to define markets empirically. I also present a general description of the markets identified.

A market is defined by:

1. Geographic boundaries. (a polygon)

2. A set of schools F^m that operate within at any point in time.

3. A set of S^m students of K observable types that live inside the market.

4. A distribution of student types across markets. The distribution is described by Π^m which is a vector of length K containing the shares of each type of student in the market m. We have that $\sum_k^K \Pi_k^m = 1$ for each market m and $\sum_k^K S_k^m = S^m$.

5. A set of N^m nodes spread evenly within the boundaries of the market that describe where students are located.

6. A distribution of student types across nodes within each market. This distribution is described by w_k^m which is a vector of length N^m containing the share of students of type k of the market m that are located at each node n. We have that $\sum_n^{N^m} w_{nk} = 1$ and $\sum_k^K \sum_n^{N^m} w_{nk}\Pi_k S_k^m = S^m$

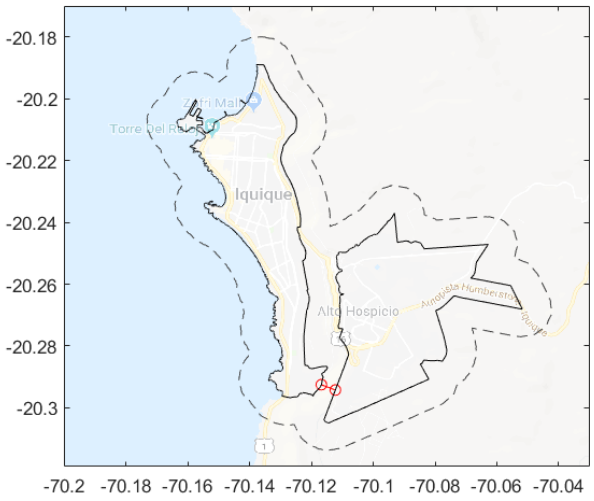
I describe each step in the subsections to follow.

Market Boundaries

Defining the market is a difficult task in many settings when physical distance is a relevant characteristic. It is generally not easy to find a boundary where one market ends and one begins in broad urban areas. Papers that study retail markets typically have used political or administrative boundaries to define markets such as cities or counties. In important example is Davis (2006). In some cases, such as small isolated communities, this works well but in large urban areas consumers close to the border of a political unit might also be close to firms in the next one. Therefore, it is possible for consumers to choose to cross market lines to buy from firms in neighboring "markets" in these cases. In this application, I take advantage of the relatively sparse distribution of the population in Chile where communities tend to be far from each other. This creates a natural definition of a market based on the idea that consumers in one city will not travel very far across rural areas to go to school in another city but may well travel within the same urban area.

There are however many cases when urban areas are in close proximity and where exactly one market ends and one begins becomes less obvious. I tackle this problem by defining a criteria and a procedure that will generate the markets. In practice, I use the Chilean census map data from 2012 of all urban areas in the country to define a starting point. These consist of 499 polygons, which can vary in size from 0.12 km^2 to 121 km^2 (average: 7.7 km^2). I join all urban areas that are two kilometers apart or less at their closest distance. The union of all connected urban areas is defined as one market under the assumption that students could feasibly travel within this set of urban areas due to their proximity. I then calculate a buffer of one kilometer around the exterior of the market to include some semi urban areas that may be locations favored by schools given lower prices and are still accessible by families near the edge of the market.

Figure 1: Market Definition



Note: This figure shows the map of a market that includes two distinct urban areas that are close to each other. The *comunas* of Iquique and Alto Hospicio illustrate how two urban areas are joined when they are close enough at some point. The outer limit represents the buffer around the urban area defined by the joined polygons and defines the borders of the market.

Assigning schools to markets (F^m)

I use administrative data to collect the list of all schools that are categorized as urban and have matriculation in the first grade between the years 2005-2011. Specifically I take all urban schools with an educational code *codigo ensenanza* of 110, which indicates regular primary education, that are classified as urban by The Ministry of Education, and have some students matriculated in the first grade. In 2011, for example, there were 8740 schools that were providers of primary education services and 4,503 were urban and had at least one student in first grade.

I geocode these schools and I assign schools to markets by their geographic location on the map, given the markets identified in the previous subsection. If the school lies within the the boundaries of the market, it is assigned to that market.

This process is very successful in locating schools lat and lon. Using the data on school addresses virtually all urban schools identified were geocoded to a location. Out of the 4000+ schools in 2011, only four were not geocoded so that 4,499 schools were located on the map with a latitude and longitude. Over the seven year period studied in this paper, less than 1% of schools were not geocoded in any particular year. Table 1 describes the rate of success when geocodig schools, by year.

Table 1: Total and geocoded schools by year

Year	Not Located	Located	Total Schools
2005	31	4,251	4,282
2006	25	4,294	4,319
2007	15	4,349	4,364
2008	5	4,407	4,412
2009	0	4,467	4,467
2010	1	4,476	4,477
2011	4	4,499	4,503

Note: This table shows the number of schools in urban areas that provide education services to primary level students in first grade that are geocoded.
Source: Ministry of Education MINEDUC, own calculations.

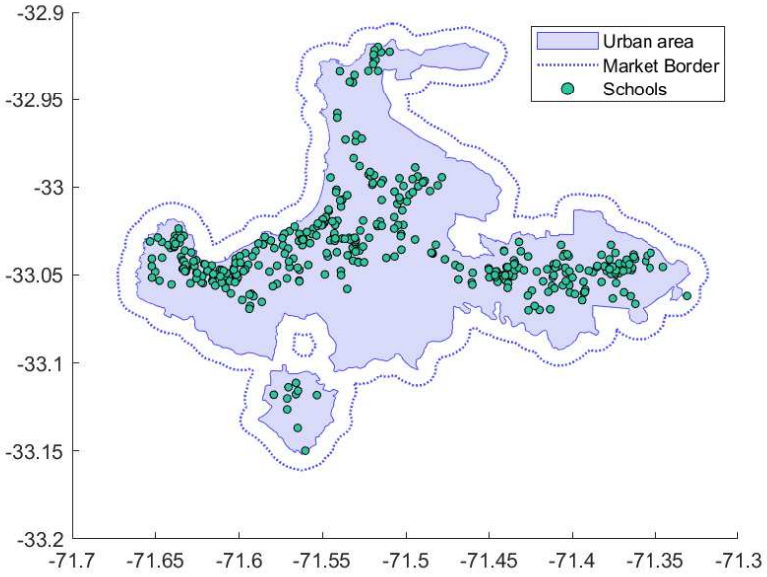
The total number of markets identified using the procedure described in the preceding subsection is 363. The distribution of the number of schools in each market is given by Table 2. It can been seen that there are many markets with only a few schools and a few markets that concentrate most of the schools.

Table 2: Number of schools in markets

Number of schools	
None	63
Between 1 and 2	126
Between 3 and 4	56
Between 5 and 10	56
Between 11 and 20	29
Between 21 and 50	13
Between 51 and 100	14
Between 101 and 1000	5
More than 1000	1

Note: This table shows the number of markets by the number of schools (ever active between 2007 and 2012) located inside its borders. The largest market is the Santiago Metro region. It has over 1500 schools representing approximately 35% of all schools. In the analysis we will focus on markets with at least five schools.
Source: Ministry of Education MINEDUC, own calculations.

Figure 2: Map of Market 52 with Schools



Note: This figure shows schools (green dots) located in the boundaries of the urban areas of the city of Viña del Mar and Valparaiso. It can be seen that some schools are located just at the outskirts of the city and are captured by the market boundary given by the buffer zone.
Source: INE, Ministry of Education MINEDUC, own calculations.

Assigning students to markets (S^m and Π^m)

Students are assigned to markets through their school. In the previous subsection, schools were assigned to markets through their location on the map. To get market shares, I use administrative aggregate data on all students at every school in every grade at a given point in time to determine the aggregate number of students in a market and thus the aggregate share of each firm in the market. Specifically, I take all students at urban schools with an educational code *codigo ensenanza* of 110, which indicates regular primary education, that are located in urban areas and have some students matriculated in the first grade. If the school has been associated with a particular market, the students at that school are deemed to belong to that market. Since all students must attend some school and we observe the universe of schooling options, the total number of students in the market is then taken to be the sum of all students at all the schools in that market.

Microdata on student matriculation associates students to schools, indicates what comuna they live in as well as what grade they are in. I take all students who attend schools found within the market buffer zones that are in 1st grade (for school choice micro moments) or in 4th grade (for estimation of school value added). Additional information about the students is available from surveys provided by SIMCE, and socioeconomic status at the time of birth is available from the Ministry of Health.

The administrative microdata on students is used to categorize students into six types given the level of education of the mother and their household income level. The education levels are given by less than high school, high school and more than high school. Income levels are given by the bottom 40% or top 60% of the income distribution. Income category is determined using survey data from SIMCE directly. Specifically, it is imputed by elegibility status of families for the SEP program, which is reported in the SIMCE survey[1] This generates six discrete groups of students. Administrative microdata that associates each student to a school and thus to a market is used to identify the number of each type in each market. In terms of the model, in this step I have identified, for every market, the set of students S^m and the vector Π^m, which contains the shares of each type of student in the market.

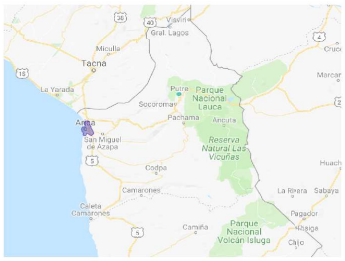
Having assigned schools to markets, and also students to markets (through their schools), I proceed to filter out some markets based on their size. Size is proxied in two ways: number of schools, and number of students in first grade. Specifically, I will focus on markets that 1) have at least 5 schools, in at least half of the years considered (2005-2017), and 2) have at least 100 students in the first grade of primary.

After applying these filters, there are 74 markets left. These are the markets taken

[1] Taking into account all criteria that can make a student eligible for SEP, eligible families belong, in practice, to the bottom 40% of the income distribution

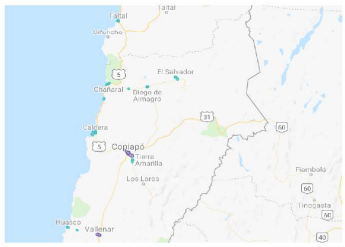
into account for all estimations in the paper. The remaining of this section is also focused on these 74 markets. As can be seen in Figure 3 and Table 4, the selected markets were also larger in physical size, relative to the ones that were filtered out. To save on space, Figure 3 does not show Region XII, the southernmost region of Chile, which has only two very small markets.

Figure 3: Geographic distribution of markets

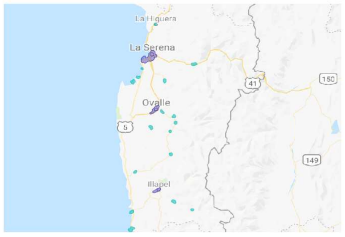


(a) Region XV

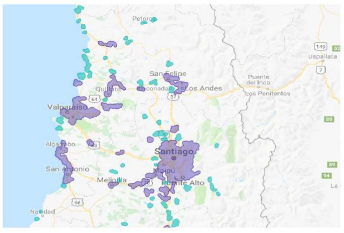
(b) Region I and II



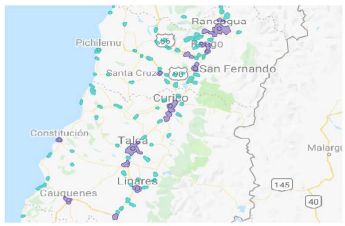
(c) Region III



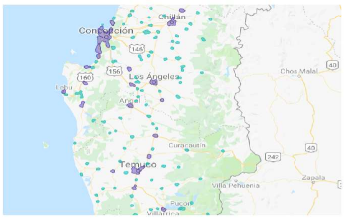
(d) Region IV



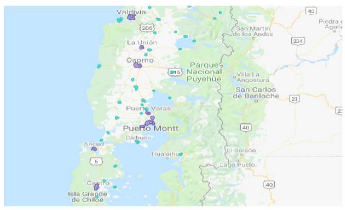
(e) Region V and XIII



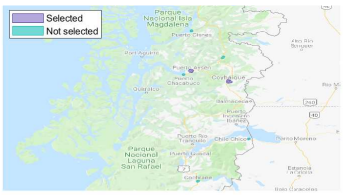
(f) Region VI and VII



(g) Region VIII and IX



(h) Region XIV and X



(i) Region XI

Figure 4: Size of markets (km^2)

	Mean	SD	Min	Max	Perc 10	Perc 25	Perc 50	Perc 75	Perc 90
Selected	32.0	56.8	7.1	456.5	9.1	11.0	15.8	32.4	53.9
Not Selected	6.5	3.6	0	25.4	3.4	4.2	5.7	7.4	9.6

Location of students within markets

The Chilean census provides detailed block level data on every urban area and thus on every market I have identified in the previous step. Block level census data is used to describe the distribution of student characteristics in the market across a grid of N_m nodes. I group census blocks into squares approximately 0.8 km wide to define a node and aggregate the block level information to this level. Figure 5 shows one example of spreading nodes across the market to diminish the dimensionality of the demand side problem while still keeping a flexible and detailed description of varying demand across space. It shows the urban limits, the market boundaries, the centroids of census blocks (that fall within the urban limits), and the centroids of the nodes that were spread evenly on top.

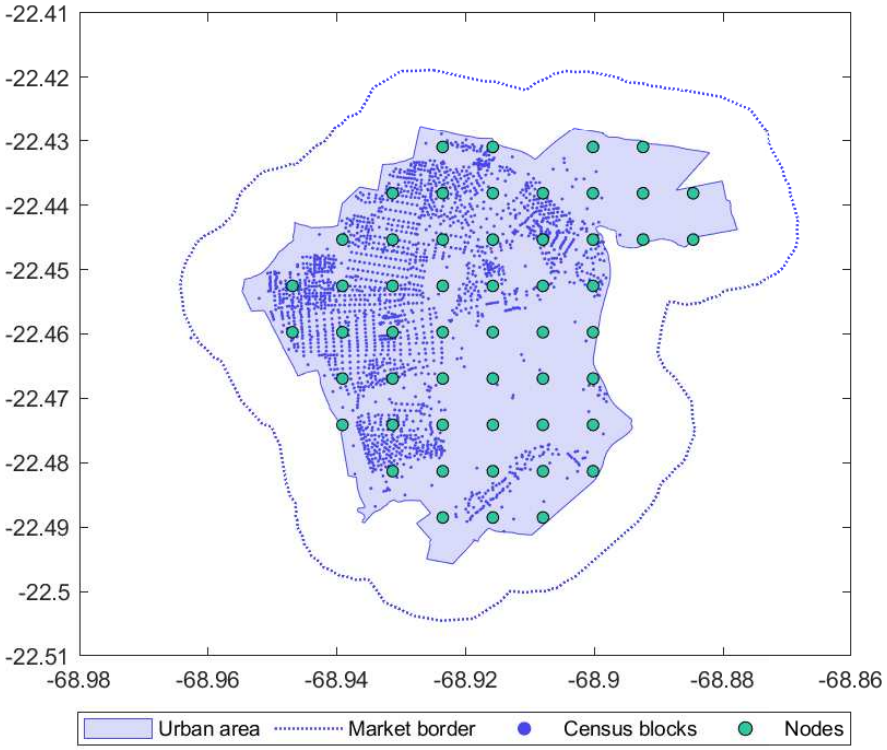
Distribution of types within markets

The model uses as input the distribution of consumer types across nodes within each market. The type of the household is defined by their income (SEP=0,SEP=1) and the education of the mother (E=1,E=2,E=3). The empirical challenge is that the census does not report eligibility to the voucher program. Administrative data provides the total number of students of each type but not where they live to the block level.

To estimate the joint distribution of household voucher program (SEP) eligibility and education of the mother across the geographic space within a market, I follow three steps. First, I characterize each node using the most recent available census data from 2012. Then, I use a sample of geocoded students (about half of students in 2011) for whom we do know their eligibility status and their mothers' education. I relate the characteristics of the block such as the education of the adults to the likelihood that a child of a mother of a given education level would be eligible for the voucher program (SEP=1). Finally, I project this across all blocks using the actual distribution of block characteristics and population to estimate w_{nk}^n which describes the distribution of a type k across blocks within a market.

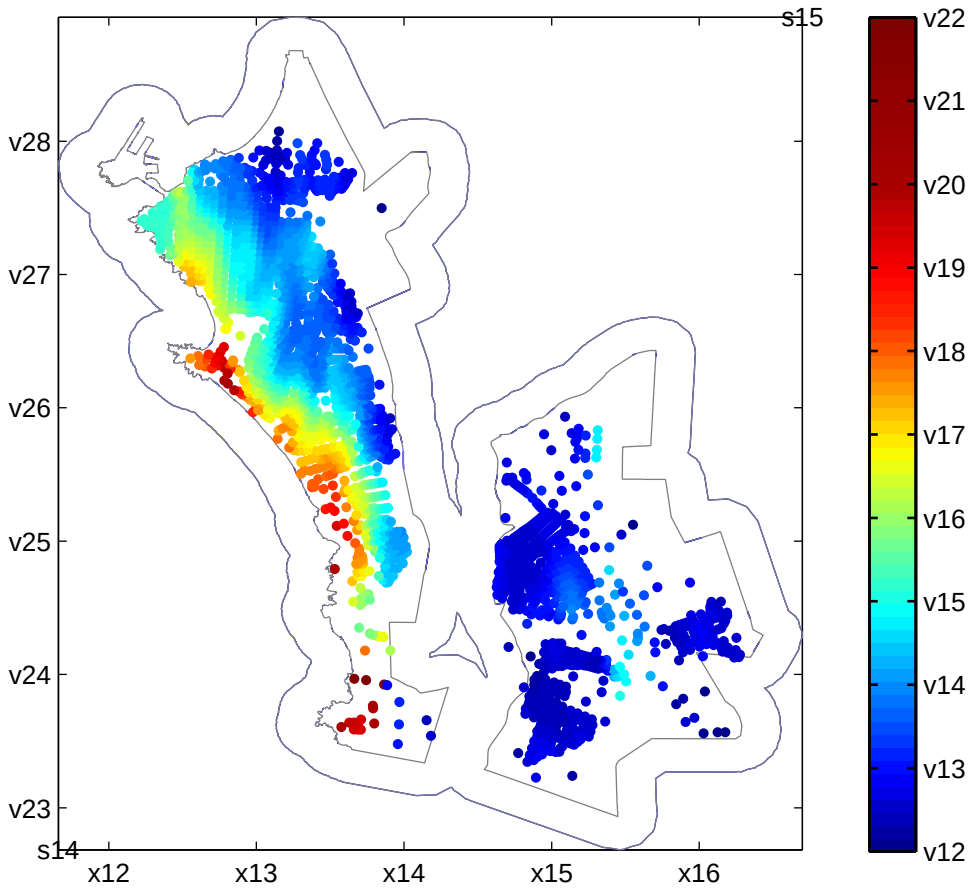
Figure 6 displays the distribution of students who have mothers with more than a

Figure 5: Map of Market 13 (Calama) with Census Blocks and Nodes



high school degree in one particular market. This market includes the cities of Iquique and Alto Hospicio and is located in the northern region of Tarapacá. It can be seen that students with educated mothers are more highly concentrated on the left of the market which is along the coast. On the bottom right of the market is Alto Hospicio which has lower overall education levels.

Figure 6: Percentage of students at each block with a mother with more than a high school education



Note: This figure shows the map of a market that includes the comunas of Iquique and Alto Hospicio, which together had a population of approximately 280,000 in 2012. The relative fraction of mothers with more than a high school education is shown at the census block level. In terms of the model, if $k = \ell$ is the type defined by mothers with an education level above high school, then the figure shows $p_{\ell,n} = \frac{\Pi_\ell^m \cdot w_{n\ell}^m}{\sum_k \Pi_k^m \cdot w_{nk}^m}$ at each $n \in N^m$.

Markets Descriptive Statistics

Since not all schools in the country are considered in the markets, we must show which subset of the population they represent and why they are chosen. Table 3 shows the total number of elementary schools in the country (that teach 1st grade), along with their enrollment. When it is restricted to urban schools, it can be seen that, although the number of schools decreases to 50% of the total, in terms of enrollment urban schools still represent around 88%. When we focus on schools in the 74 markets, we are considering an important share of urban enrollment, reaching roughly 90%. This is to be expected since rural schools are located mainly in the periphery and tend to have very few students. Overall, enrollment in the markets considered represent over 75% of total enrollment. As discussed below, the schools affected by the policy are mainly urban schools with a significant percentage of enrollment, so the markets would be representing that set of schools of interest.

To demonstrate the similarity between the subset of schools considered in the markets and urban elementary schools, Table 4 shows some main composition statistics. We can see how both subgroups are similar, having a slight overrepresentation of schools affiliated with the policy in the markets. Later we will show that this overrepresentation is related to the consideration of more private schools subsidized in SEP, with respect to the total population.

Table 3: Total schools, urban schools and schools in markets

	2008	2009	2010	2011	2012
Total Elementary Schools	8,829	8,866	8,740	8,724	8,674
Total Enrollment on 1st grade	253,404	241,846	246,020	246,417	237,651
Urban Schools	4,585	4,648	4,686	4,745	4,809
% of Total Schools	51.9	52.4	53.6	54.4	55.4
Urban Enrollment	222,413	212,259	217,160	217,665	210,397
% of Total Enrollment	87.8	87.8	88.3	88.3	88.5
Schools in Markets	3,891	3,919	3,929	3,936	3,937
% of Urban Schools	84.9	84.3	83.8	83.0	81.9
Enrollment in 1st grade in Markets	198,729	189,804	194,042	194,300	186,918
% of Urban Enrollment	89.4	89.4	89.4	89.3	88.8

Table 4: Urban schools and schools in markets

	Urban Schools				Schools in Markets			
Year	Avg 1st grade Enrollment	SEP Adoption	% Private Schools	Value Added	Avg 1st grade Enrollment	SEP Adoption	% Private Schools	Value Added
2008	48.5	65.2	57.3	-0.16	52.5	63.0	60.4	-0.15
2009	45.7	69.6	58.0	-0.10	49.3	68.3	60.9	-0.10
2010	46.3	72.1	57.7	-0.04	50.5	70.2	61.5	-0.04
2011	45.9	74.5	58.4	-0.03	50.7	73.4	62.0	-0.03
2012	43.8	77.4	58.8	0.00	48.5	76.6	62.3	0.00

Table 5: Summary of markets' characteristics, years 2007 and 2012

Region	Market	Year	Schools	Private Schools	Private Enroll.	Average quality by type of student					
						Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
I	1	2007	72	0.75	0.80	-0.63	-0.40	-0.41	-0.12	-0.24	0.21
I	1	2012	79	0.80	0.84	-0.04	0.03	0.08	0.15	0.24	0.35
II	6	2007	72	0.51	0.47	-0.64	-0.51	-0.48	-0.26	-0.26	0.09
II	6	2012	73	0.53	0.55	-0.16	-0.10	-0.04	0.05	0.07	0.27
II	12	2007	7	0.14	0.21	-0.73	-0.66	-0.69	-0.66	-0.58	-0.51
II	12	2012	7	0.14	0.22	-0.40	-0.47	-0.37	-0.25	-0.34	-0.07
II	13	2007	32	0.50	0.45	-0.35	-0.24	-0.24	-0.13	-0.08	0.09
II	13	2012	31	0.52	0.47	0.10	0.15	0.24	0.27	0.35	0.41
III	18	2007	34	0.41	0.38	-0.50	-0.46	-0.39	-0.21	-0.17	0.16
III	18	2012	34	0.41	0.42	-0.17	-0.12	-0.02	0.12	0.20	0.45
III	24	2007	16	0.25	0.24	-0.31	-0.28	-0.27	-0.08	0.09	0.21
III	24	2012	16	0.25	0.25	0.03	0.18	0.14	0.18	0.26	0.36
IV	28	2007	120	0.72	0.71	-0.42	-0.27	-0.26	0.01	-0.02	0.28
IV	28	2012	131	0.74	0.80	-0.07	0.03	0.08	0.15	0.23	0.30
IV	32	2007	9	0.44	0.40	-0.06	-0.03	-0.01	0.07	0.17	0.24
IV	32	2012	9	0.44	0.44	-0.23	-0.15	-0.19	-0.11	-0.09	-0.04
IV	36	2007	23	0.48	0.48	-0.33	-0.22	-0.15	0.07	0.15	0.42
IV	36	2012	24	0.46	0.58	0.06	-0.01	0.09	0.24	0.31	0.52
V	45	2007	52	0.62	0.61	-0.43	-0.26	-0.33	-0.09	-0.19	0.13
V	45	2012	56	0.63	0.64	-0.08	-0.09	0.02	0.10	0.13	0.25
V	48	2007	64	0.63	0.66	-0.50	-0.24	-0.28	-0.07	-0.15	0.29
V	48	2012	65	0.63	0.74	-0.13	-0.10	0.04	0.10	0.18	0.30
V	49	2007	63	0.52	0.58	-0.57	-0.43	-0.43	-0.19	-0.25	0.22
V	49	2012	63	0.52	0.64	-0.23	-0.12	-0.13	-0.02	0.07	0.26
V	51	2007	10	0.70	0.49	-0.50	-0.48	-0.42	-0.35	-0.08	-0.11
V	51	2012	12	0.75	0.61	0.22	0.21	-0.07	0.03	0.24	0.14
V	52	2007	341	0.66	0.68	-0.57	-0.39	-0.38	-0.14	-0.10	0.20
V	52	2012	334	0.67	0.74	-0.26	-0.19	-0.12	0.00	0.07	0.26
V	58	2007	9	0.56	0.51	-0.53	-0.34	-0.24	-0.07	0.05	0.16
V	58	2012	10	0.60	0.57	-0.15	0.06	0.00	0.07	0.23	0.33
V	59	2007	23	0.61	0.61	-0.37	-0.34	-0.32	-0.15	0.03	-0.02
V	59	2012	23	0.61	0.70	-0.19	-0.09	-0.04	0.02	0.08	0.14
V	60	2007	11	0.55	0.60	-0.46	-0.23	-0.23	-0.06	0.23	0.25
V	60	2012	11	0.55	0.64	-0.09	-0.13	0.03	0.11	0.16	0.07
V	70	2007	6	0.67	0.71	-0.31	-0.12	-0.15	-0.05	-0.15	-0.07
V	70	2012	7	0.57	0.68	-0.34	-0.24	-0.21	-0.11	0.01	0.02
VI	77	2007	89	0.64	0.57	-0.62	-0.36	-0.38	-0.16	-0.11	0.25

Table 5 – *Continued from previous page*

Region	Market	Year	Schools	Private Schools	Private Enroll.	Average quality by type of student					
						Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
VI	77	2012	95	0.66	0.65	-0.17	-0.06	-0.00	0.11	0.20	0.45
VI	79	2007	9	0.67	0.66	-0.49	-0.34	-0.33	-0.20	-0.23	-0.05
VI	79	2012	11	0.64	0.67	-0.41	-0.30	-0.23	-0.22	-0.25	-0.09
VI	92	2007	16	0.31	0.24	-0.45	-0.35	-0.35	-0.19	0.00	0.25
VI	92	2012	16	0.31	0.28	-0.18	-0.13	-0.13	-0.07	-0.13	0.02
VI	94	2007	7	0.71	0.52	-0.11	-0.07	0.01	0.19	0.41	0.28
VI	94	2012	8	0.88	0.73	0.01	0.12	0.20	0.26	0.42	0.44
VI	104	2007	26	0.65	0.64	-0.20	-0.18	-0.14	0.05	0.31	0.41
VI	104	2012	24	0.63	0.69	-0.18	-0.01	0.06	0.14	0.31	0.51
VI	116	2007	10	0.70	0.70	-0.24	0.02	0.02	0.18	0.19	0.29
VI	116	2012	9	0.67	0.77	-0.02	-0.03	0.24	0.32	0.39	0.37
VII	117	2007	11	0.27	0.27	-0.34	-0.26	-0.33	-0.13	0.04	0.24
VII	117	2012	11	0.27	0.31	-0.26	0.03	0.01	0.05	0.24	0.21
VII	121	2007	11	0.55	0.51	-0.02	0.16	0.10	0.30	0.64	0.53
VII	121	2012	10	0.60	0.60	0.23	0.55	0.60	0.76	0.88	0.92
VII	125	2007	42	0.62	0.55	-0.38	-0.18	-0.19	0.12	0.13	0.36
VII	125	2012	44	0.61	0.69	-0.01	0.15	0.21	0.35	0.44	0.58
VII	132	2007	33	0.61	0.64	-0.11	0.11	0.04	0.23	0.21	0.48
VII	132	2012	33	0.61	0.69	0.18	0.08	0.26	0.25	0.31	0.45
VII	136	2007	57	0.54	0.56	-0.50	-0.27	-0.21	0.05	0.11	0.33
VII	136	2012	59	0.56	0.60	-0.17	-0.03	0.04	0.12	0.21	0.41
VII	138	2007	10	0.50	0.42	-0.55	-0.43	-0.19	-0.09	0.23	0.19
VII	138	2012	10	0.50	0.58	-0.31	-0.21	-0.13	-0.01	0.12	0.14
VII	140	2007	12	0.42	0.56	-0.20	-0.04	-0.08	0.13	0.07	0.23
VII	140	2012	12	0.42	0.59	0.10	0.22	0.14	0.20	0.28	0.30
VII	152	2007	11	0.64	0.71	-0.29	-0.20	-0.20	-0.04	0.04	0.35
VII	152	2012	11	0.64	0.75	-0.06	0.27	0.24	0.47	0.49	0.46
VIII	160	2007	199	0.57	0.59	-0.47	-0.27	-0.24	-0.02	-0.02	0.25
VIII	160	2012	203	0.61	0.68	-0.10	-0.06	0.05	0.15	0.23	0.32
VIII	161	2007	57	0.56	0.66	-0.41	-0.27	-0.16	0.05	0.19	0.41
VIII	161	2012	59	0.59	0.75	-0.04	0.05	0.08	0.16	0.24	0.31
VIII	166	2007	48	0.44	0.51	-0.48	-0.27	-0.28	-0.07	-0.07	0.19
VIII	166	2012	49	0.45	0.58	0.00	0.11	0.14	0.19	0.20	0.24
VIII	187	2007	13	0.15	0.23	0.12	0.17	0.17	0.20	0.17	0.23
VIII	187	2012	13	0.15	0.25	0.74	0.84	0.63	0.53	0.29	0.27
VIII	193	2007	6	0.50	0.59	-0.44	-0.27	-0.18	0.06	0.27	0.53
VIII	193	2012	6	0.50	0.62	-0.00	0.26	0.38	0.47	0.42	0.67
VIII	195	2007	8	0.25	0.30	-0.35	-0.32	-0.18	0.17	0.28	0.41

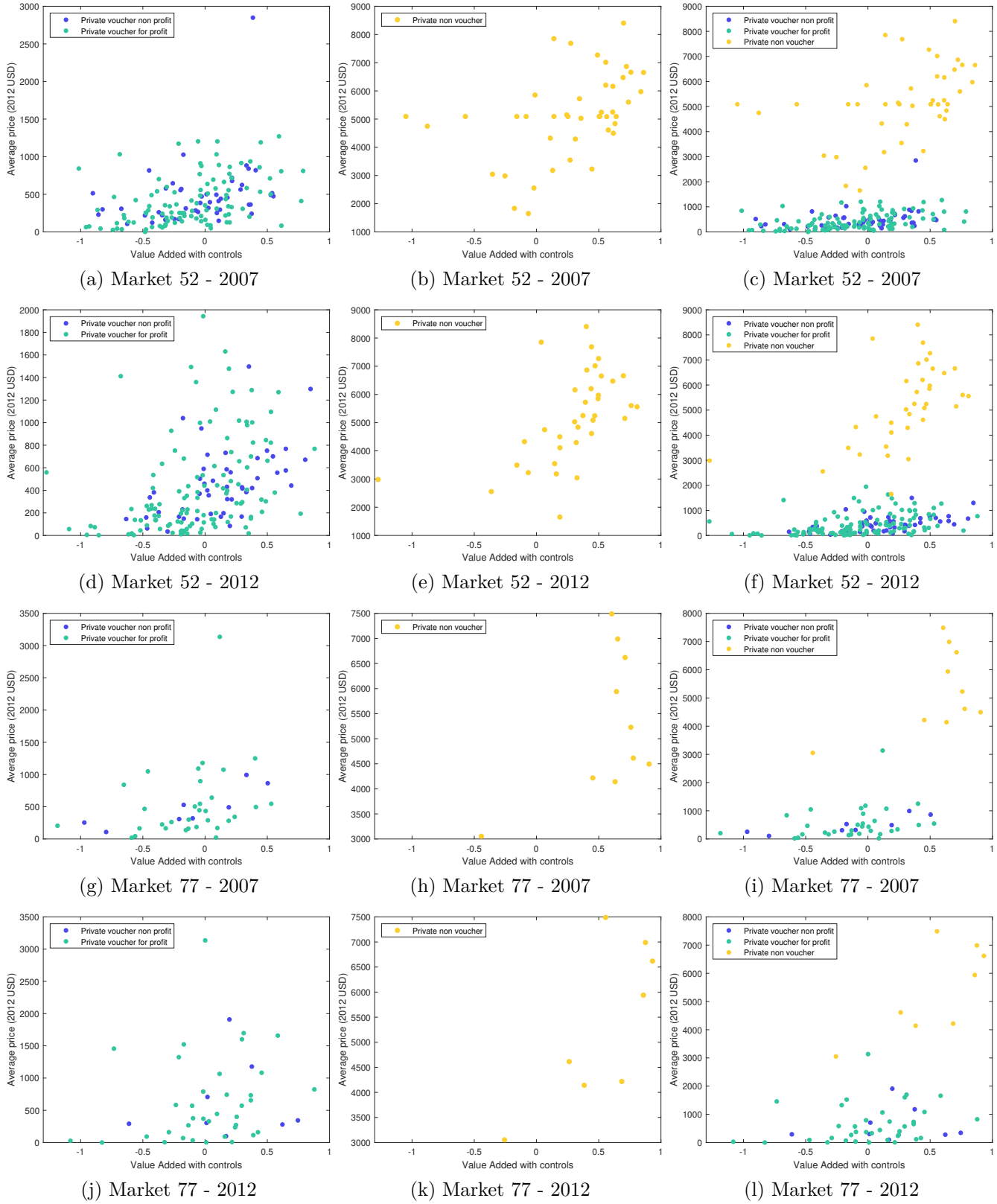
Table 5 – *Continued from previous page*

Region	Market	Year	Schools	Private Schools	Private Enroll.	Average quality by type of student					
						Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
VIII	195	2012	8	0.25	0.36	0.30	0.40	0.44	0.47	0.44	0.58
VIII	197	2007	10	0.30	0.25	-0.11	.	-0.08	0.09	-0.00	.
VIII	197	2012	10	0.30	0.30	-0.12	-0.05	-0.01	0.19	0.15	0.27
VIII	198	2007	9	0.11	0.07	-0.34	.	-0.17	0.33	0.09	.
VIII	198	2012	8	0.13	0.05	0.04	0.09	0.08	0.10	0.20	0.20
VIII	205	2007	9	0.56	0.17	-0.22	-0.11	-0.08	0.09	0.18	0.36
VIII	205	2012	8	0.50	0.25	0.11	0.29	0.40	0.41	0.46	0.46
VIII	207	2007	47	0.64	0.60	-0.48	-0.31	-0.28	-0.01	0.07	0.36
VIII	207	2012	49	0.65	0.65	-0.12	-0.04	0.07	0.21	0.30	0.40
VIII	210	2007	9	0.22	0.14	-0.61	-0.48	-0.42	-0.35	-0.17	0.11
VIII	210	2012	10	0.30	0.33	-0.04	0.01	-0.00	-0.02	0.06	0.07
VIII	211	2007	7	0.29	0.36	0.00	-0.00	0.13	0.20	0.32	0.23
VIII	211	2012	7	0.29	0.36	0.36	0.35	0.35	0.44	0.42	0.46
VIII	220	2007	13	0.54	0.67	-0.35	-0.18	-0.01	0.29	0.43	0.40
VIII	220	2012	13	0.54	0.64	0.26	0.43	0.47	0.57	0.65	0.72
IX	221	2007	17	0.53	0.52	-0.31	-0.17	-0.15	-0.06	0.02	0.15
IX	221	2012	17	0.53	0.56	0.13	0.15	0.23	0.21	0.41	0.23
IX	235	2007	8	0.50	0.50	-0.48	-0.42	-0.32	-0.29	-0.19	-0.07
IX	235	2012	8	0.50	0.59	-0.05	0.06	0.19	0.32	0.40	0.47
IX	239	2007	8	0.38	0.47	-0.41	-0.39	-0.28	-0.24	-0.22	-0.18
IX	239	2012	8	0.38	0.45	-0.16	0.05	0.06	0.15	0.15	0.14
IX	248	2007	12	0.75	0.73	-0.31	-0.07	-0.12	0.06	0.09	0.28
IX	248	2012	10	0.70	0.73	0.04	0.06	0.09	0.07	0.03	-0.02
IX	250	2007	96	0.73	0.72	-0.42	-0.24	-0.19	-0.01	-0.01	0.26
IX	250	2012	95	0.76	0.77	0.05	0.05	0.12	0.16	0.24	0.43
IX	264	2007	10	0.50	0.63	-0.83	-0.57	-0.58	-0.45	-0.31	-0.20
IX	264	2012	9	0.56	0.67	-0.11	-0.20	-0.01	-0.08	0.11	0.04
IX	267	2007	15	0.67	0.70	-0.29	-0.31	-0.20	0.00	0.15	0.36
IX	267	2012	16	0.69	0.71	0.25	0.27	0.31	0.36	0.52	0.40
X	270	2007	16	0.69	0.65	-0.19	-0.09	-0.09	0.02	0.03	0.01
X	270	2012	17	0.76	0.77	0.06	0.04	0.14	0.17	0.37	0.39
X	272	2007	11	0.36	0.31	-0.13	-0.02	0.02	0.08	0.10	0.20
X	272	2012	13	0.46	0.40	0.28	0.22	0.20	0.16	0.20	0.24
X	284	2007	54	0.70	0.63	-0.16	-0.08	-0.04	0.08	0.12	0.35
X	284	2012	58	0.69	0.63	0.14	0.23	0.20	0.22	0.15	0.28
X	285	2007	6	0.50	0.30	-0.30	-0.31	-0.21	-0.17	-0.01	-0.13
X	285	2012	7	0.57	0.41	-0.04	-0.07	0.12	0.14	0.01	0.40
X	286	2007	49	0.51	0.53	-0.31	-0.25	-0.14	0.06	0.16	0.30

Table 5 – *Continued from previous page*

Region	Market	Year	Schools	Private Schools	Private Enroll.	Average quality by type of student					
						Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
X	286	2012	55	0.55	0.60	0.05	0.08	0.20	0.29	0.28	0.48
X	287	2007	8	0.63	0.62	-0.38	0.03	-0.17	0.23	0.20	0.37
X	287	2012	8	0.63	0.65	-0.05	-0.01	0.17	0.23	0.34	0.40
X	292	2007	9	0.56	0.53	-0.26	-0.19	-0.18	-0.04	0.09	0.05
X	292	2012	9	0.67	0.60	-0.05	-0.02	-0.06	-0.01	0.03	0.09
XI	301	2007	7	0.43	0.52	-0.24	-0.27	-0.26	-0.11	-0.23	0.05
XI	301	2012	9	0.44	0.60	-0.03	0.01	0.12	0.15	0.06	0.31
XI	305	2007	16	0.69	0.65	-0.28	-0.16	-0.14	-0.06	-0.06	0.19
XI	305	2012	18	0.72	0.78	0.05	0.11	0.15	0.21	0.23	0.23
XII	311	2007	34	0.50	0.42	-0.32	-0.26	-0.22	-0.07	0.15	0.01
XII	311	2012	35	0.51	0.49	-0.16	-0.13	-0.13	-0.01	0.02	0.17
XIII	312	2007	1523	0.71	0.72	-0.51	-0.37	-0.32	-0.10	-0.03	0.31
XIII	312	2012	1504	0.72	0.76	-0.20	-0.13	-0.03	0.08	0.17	0.37
XIII	320	2007	21	0.76	0.75	-0.40	-0.27	-0.26	-0.09	-0.30	0.26
XIII	320	2012	24	0.79	0.82	0.17	0.29	0.34	0.40	0.51	0.44
XIII	324	2007	10	0.80	0.64	-0.57	-0.35	-0.46	-0.08	.	-0.01
XIII	324	2012	13	0.85	0.84	-0.17	-0.16	0.00	0.08	0.22	0.13
XIII	328	2007	15	0.67	0.60	-0.58	-0.21	-0.13	0.05	-0.28	0.50
XIII	328	2012	21	0.76	0.82	-0.27	-0.31	-0.10	0.01	0.04	0.46
XIII	329	2007	9	0.78	0.79	-0.51	-0.43	-0.19	-0.11	0.23	0.23
XIII	329	2012	11	0.82	0.86	-0.10	-0.06	0.05	0.22	0.39	0.37
XIII	336	2007	26	0.73	0.74	-0.61	-0.49	-0.35	-0.21	-0.24	0.10
XIII	336	2012	27	0.74	0.80	-0.14	-0.03	0.01	0.15	0.22	0.25
XIII	338	2007	10	0.70	0.50	-0.29	-0.12	-0.19	-0.07	-0.24	0.04
XIII	338	2012	11	0.73	0.62	-0.16	-0.12	0.00	0.01	0.04	0.16
XIII	340	2007	31	0.65	0.64	-0.40	-0.21	-0.20	-0.06	-0.22	0.23
XIII	340	2012	33	0.67	0.67	-0.18	-0.04	-0.09	0.02	0.18	0.42
XIII	341	2007	7	0.43	0.34	-0.53	-0.43	-0.46	-0.45	-0.05	-0.31
XIII	341	2012	9	0.67	0.67	-0.37	-0.29	-0.18	-0.07	-0.03	-0.16
XIV	346	2007	9	0.33	0.21	-0.20	-0.00	-0.17	0.05	0.40	0.27
XIV	346	2012	9	0.44	0.34	-0.01	0.01	0.03	0.26	0.15	0.49
XIV	361	2007	46	0.63	0.53	-0.42	-0.35	-0.26	0.04	-0.04	0.38
XIV	361	2012	47	0.66	0.63	-0.03	-0.00	0.07	0.15	0.25	0.40
XV	362	2007	47	0.51	0.66	-0.40	-0.25	-0.28	-0.14	-0.23	-0.03
XV	362	2012	55	0.60	0.71	-0.04	-0.10	0.10	0.15	0.17	0.27

Figure 7: Value Added and Prices in selected markets

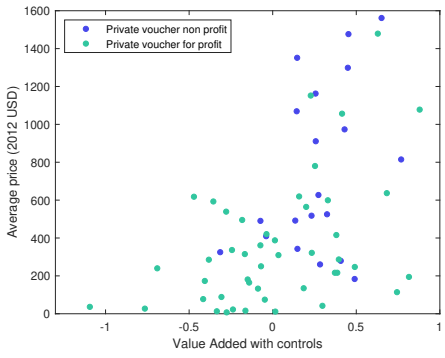


(a) Market 52 - 2007 (b) Market 52 - 2007 (c) Market 52 - 2007

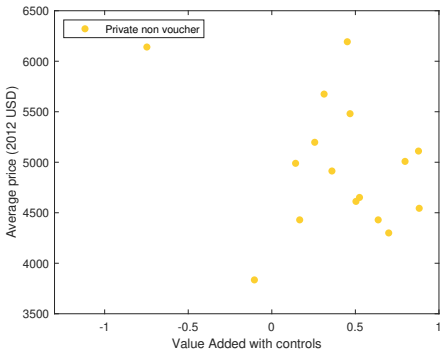
(d) Market 52 - 2012 (e) Market 52 - 2012 (f) Market 52 - 2012

(g) Market 77 - 2007 (h) Market 77 - 2007 (i) Market 77 - 2007

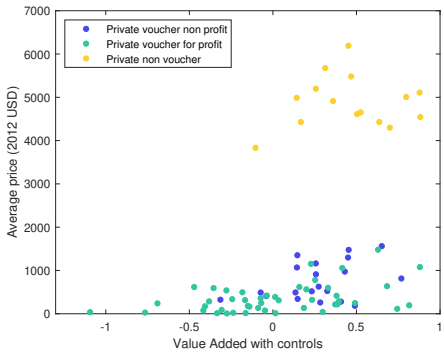
(j) Market 77 - 2012 (k) Market 77 - 2012 (l) Market 77 - 2012



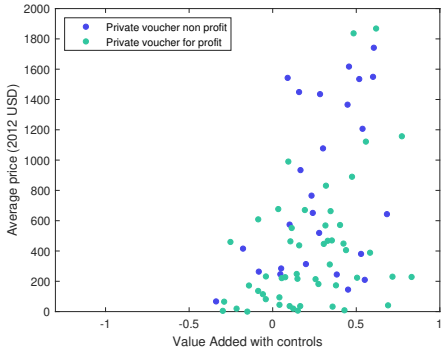
(a) Market 160 - 2007



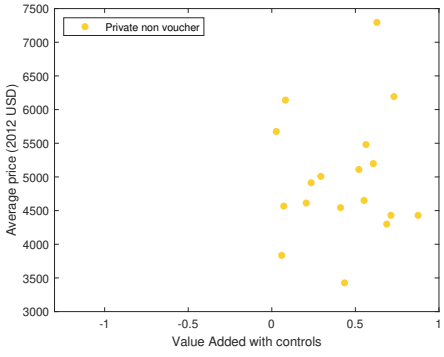
(b) Market 160 - 2007



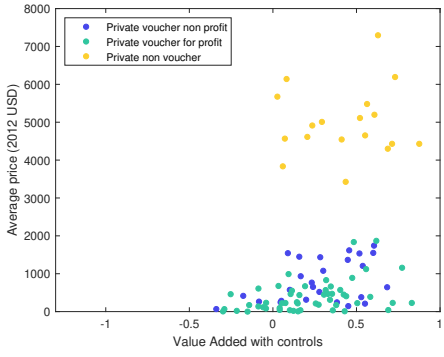
(c) Market 160 - 2007



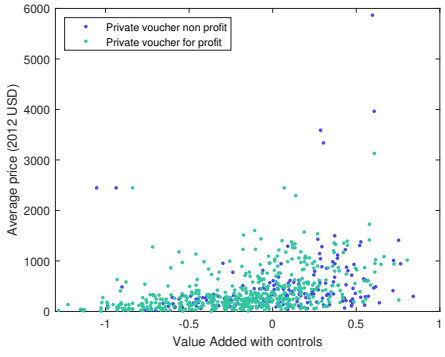
(d) Market 160 - 2012



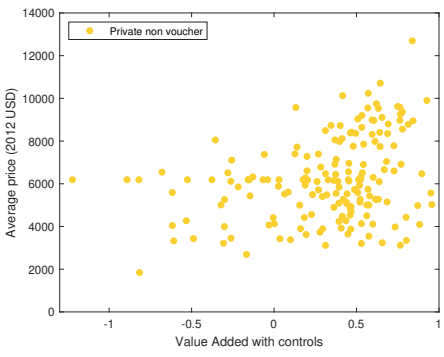
(e) Market 160 - 2012



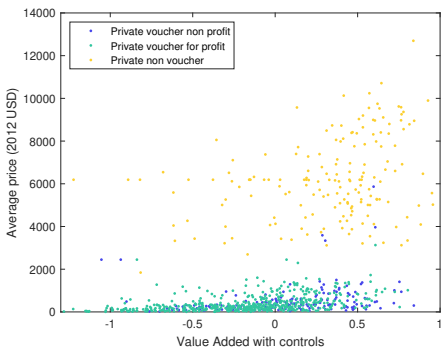
(f) Market 160 - 2012



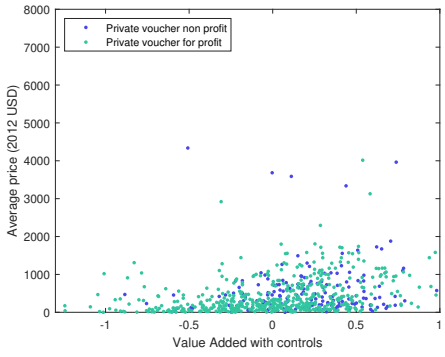
(g) Market 312 - 2007



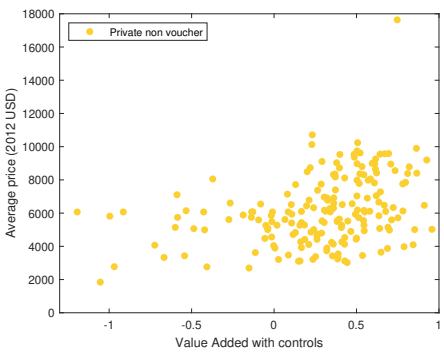
(h) Market 312 - 2007



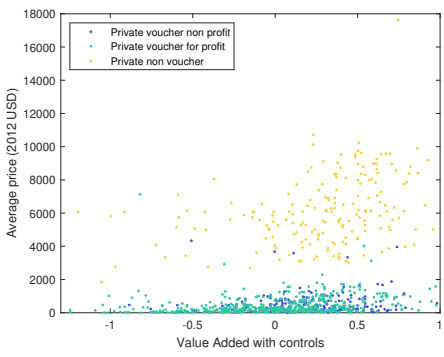
(i) Market 312 - 2007



(j) Market 312 - 2012



(k) Market 312 - 2012



(l) Market 312 - 2012