

*Data Appendix**

*Definitions and Summary Statistics
of Variables used in the Empirical Analysis*

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*To accompany, “The Effects of Managed Care on Medical Referrals and the Quality of Specialty Care,” by the same authors.

Poisson Model
9066 Observations in the data

Dependent Variable	Description	Mean	Std Dev	Minimum	Maximum
Number of Paid Claims	Number of claims closed for positive payment against the physician during 1992 Q2 -1996 Q4.	0.39	0.79	0	12

Explanatory Variables	Description	Mean	Std Dev	Minimum	Maximum
Experience	Number of years physician licensed in Florida. Mean-scaled in the analysis.	1.00	0.47	0.15	2.98
Experience Squared	Square of the mean-scaled variable	1.22	1.12	0.02	8.85
Female	Gender of the physician, F=1, M=0.	0.08	0.28	0.00	1.00
Newcomer	Physician licensed in 1987 or later.	0.15	0.36	0.00	1.00
Severity	Average patient severity, based on DRG relative weights, for the patients of the physician.	1.42	0.91	0.22	14.06
Second Circuit	Physician is located in Second Judicial Circuit, dummy variable.	0.25	0.43	0.00	1.00
Third Circuit	Physician is located in Third Judicial Circuit, dummy variable.	0.18	0.38	0.00	1.00
Fourth Circuit	Physician is located in Fourth Judicial Circuit, dummy variable.	0.22	0.41	0.00	1.00
Fifth Circuit	Physician is located in Fifth Judicial Circuit, dummy variable.	0.19	0.39	0.00	1.00
Anestheseology	Physician specialty, dummy variable.	0.02	0.14	0.00	1.00
Emergency Medicine	Physician specialty, dummy variable.	0.03	0.17	0.00	1.00
Internal Medicine	Physician specialty, dummy variable.	0.29	0.45	0.00	1.00
Obstetrics - Gynecology	Physician specialty, dummy variable.	0.10	0.31	0.00	1.00
Ophthamology	Physician specialty, dummy variable.	0.02	0.13	0.00	1.00
Otorhinolaryngology	Physician specialty, dummy variable.	0.02	0.15	0.00	1.00
Pediatrics	Physician specialty, dummy variable.	0.07	0.26	0.00	1.00
Psychiatry	Physician specialty, dummy variable.	0.04	0.20	0.00	1.00
Radiology	Physician specialty, dummy variable.	0.05	0.21	0.00	1.00
Surgery	Physician specialty, dummy variable.	0.25	0.43	0.00	1.00
Other Specialties	Physician specialty grouping, incl. allergy/immunology, dermatology,	0.02	0.13	0.00	1.00

Second Stage Model
6324 observations in the data

Dependent Variables	Description	Mean	Std Dev	Minimum	Maximum
Change in HMO patients	Difference in the number of patients the physician treated in 1997 and 1992 who are paid by HMO.	2.93	8.10	-94.00	95.00
Change in FFS patients	Difference in the number of patients treated in 1997 and 1992 who are paid by Commercial (FFS) insurance	-1.94	7.23	-51.00	240.00
Explanatory Variables	Description	Mean	Std Dev	Minimum	Maximum
Excess Paid Claims	Physician's estimated number of Excessive claims relative to his peer group, from Poisson estimates.	-0.01	0.28	-0.66	8.25
Market Change in HMO patients	For the county where physician practices, difference in the aggregate number of inpatient discharges in 1997 and 1992 who are paid by HMO. Scaled by the number of surgeons in the county.	1.59	1.57	-2.09	6.04
Market Change in FFS patients	For the county where physician practices, difference in the aggregate number of inpatient discharges in 1997 and 1992 who are paid by Commercial insurance. Scaled by the number of surgeons in the county.	-1.29	0.97	-3.94	0.51
MSA: Dade - Broward	Physician is located in Dade-Broward Metro. Statistical Area, dummy variable.	0.26	0.44	0.00	1.00
MSA: Other	Physician is located in Metro. Statistical Area other than Dade-Broward, dummy variable.	0.67	0.47	0.00	1.00
Experience	Number of years physician licensed in Florida. Mean-scaled in the analysis.	0.94	0.41	0.15	2.58
Experience Squared	Square of the mean-scaled variable	1.06	0.90	0.02	6.68
Female	Gender of the physician, F=1, M=0.	0.07	0.26	0.00	1.00
Newcomer	Physician licensed in 1987 or later.	0.16	0.37	0.00	1.00
Anesthesiology	Physician specialty, dummy variable.	0.01	0.11	0.00	1.00
Emergency Medicine	Physician specialty, dummy variable.	0.03	0.16	0.00	1.00
Internal Medicine	Physician specialty, dummy variable.	0.30	0.46	0.00	1.00
Obstetrics - Gynecology	Physician specialty, dummy variable.	0.12	0.33	0.00	1.00
Ophthalmology	Physician specialty, dummy variable.	0.01	0.09	0.00	1.00
Otorhinolaryngology	Physician specialty, dummy variable.	0.03	0.16	0.00	1.00
Pediatrics	Physician specialty, dummy variable.	0.07	0.26	0.00	1.00
Psychiatry	Physician specialty, dummy variable.	0.04	0.19	0.00	1.00
Radiology	Physician specialty, dummy variable.	0.05	0.21	0.00	1.00
Surgery	Physician specialty, dummy variable.	0.29	0.46	0.00	1.00
Other Specialties	Physician specialty grouping, incl. allergy/immunology, dermatology, pathology, and preventive medicine.	0.01	0.10	0.00	1.00