

Supplemental online content for:

Increasing Financial Payments From Industry to Medical Oncologists in the United States, 2014–2017

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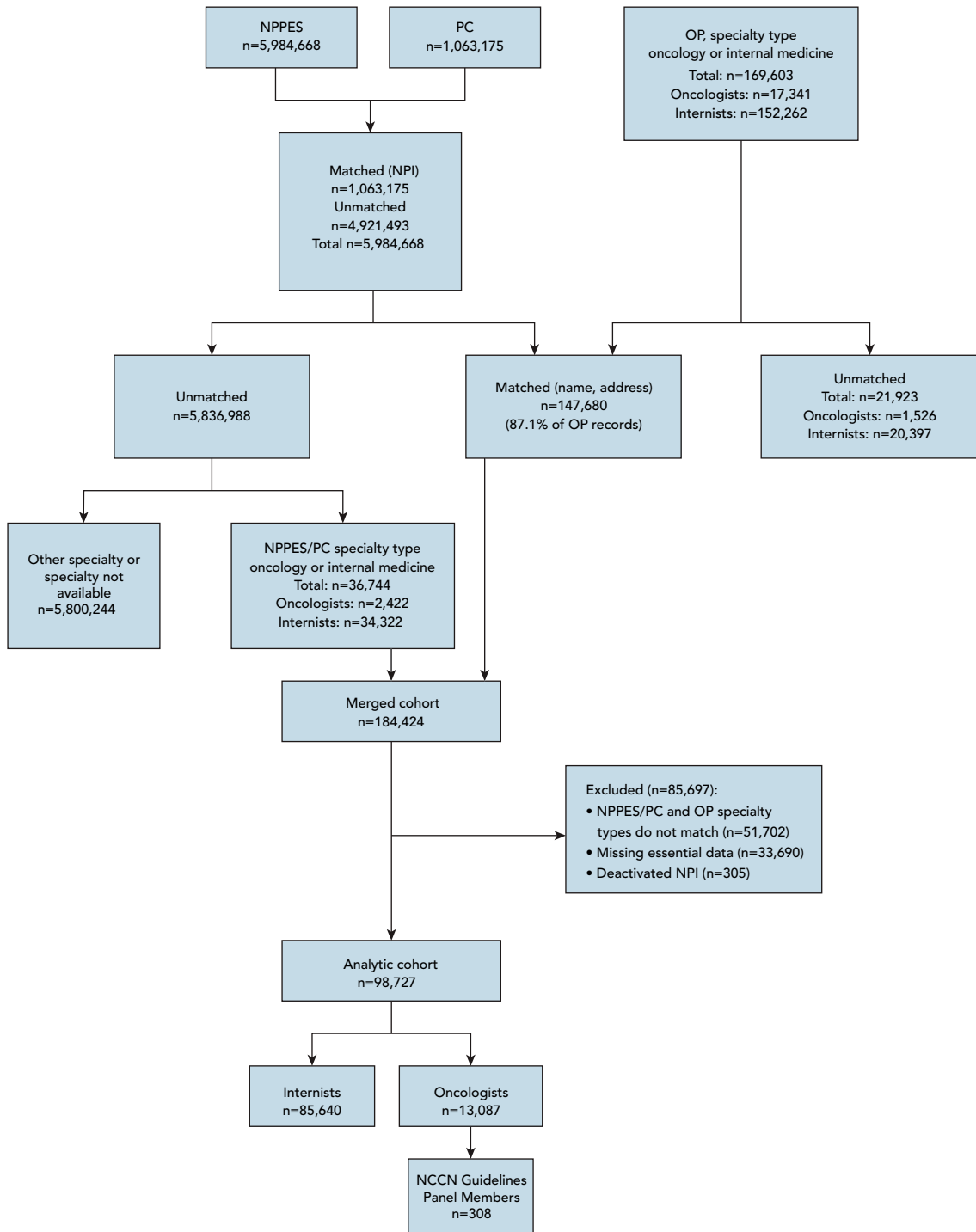
eFigure 1: Cohort Deviation

eFigure 2: Mean Weekly Per-Physician Dollar Value of General Industry Payments

eFigure 3: Full Time Series Decomposition Outputs for Oncologists and Internists

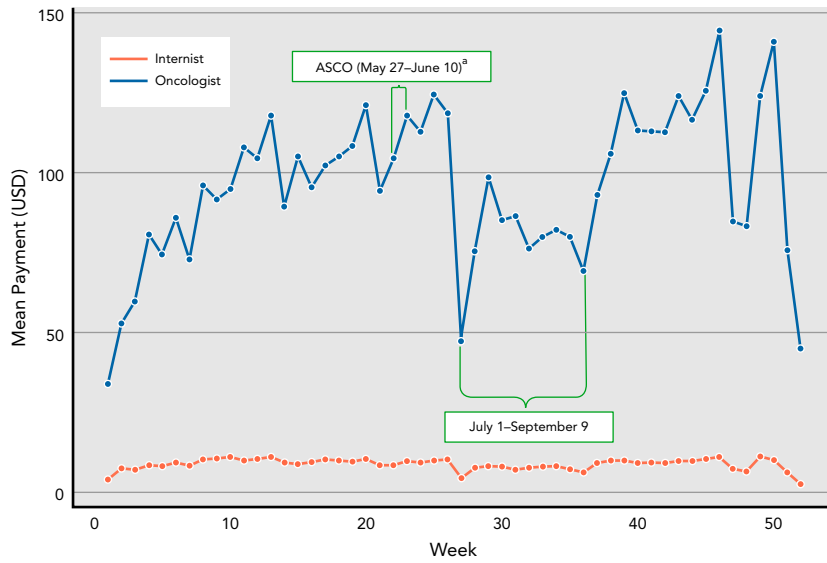
eFigure 4: Mean Annual Per-Physician Dollar Value of General Industry Payments to Internists Over Career Trajectory

eTable 1: Industry Payments to Oncologists From Pharmaceutical Companies Manufacturing PD-1/PD-L1 Drugs

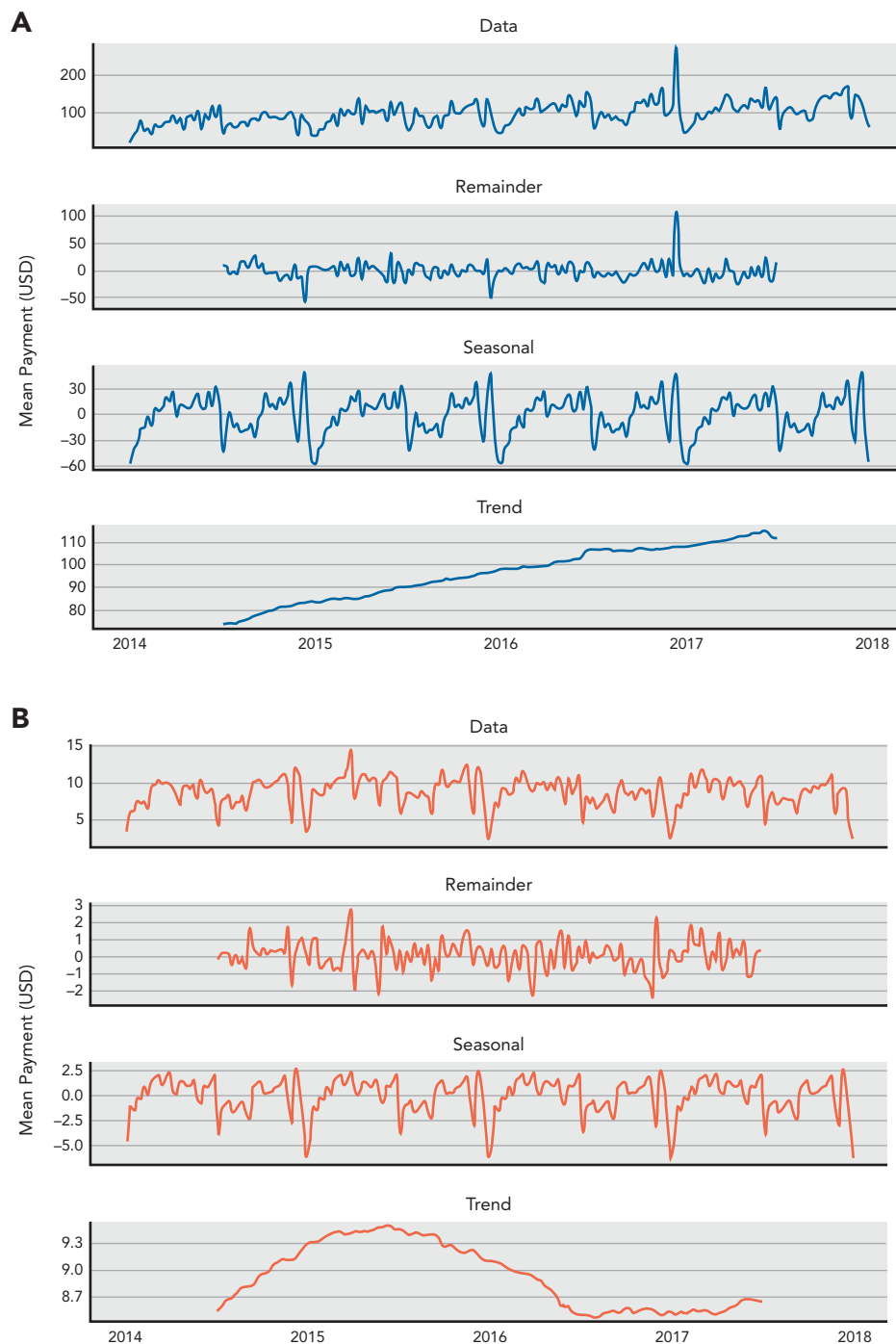


eFigure 1. Cohort derivation.

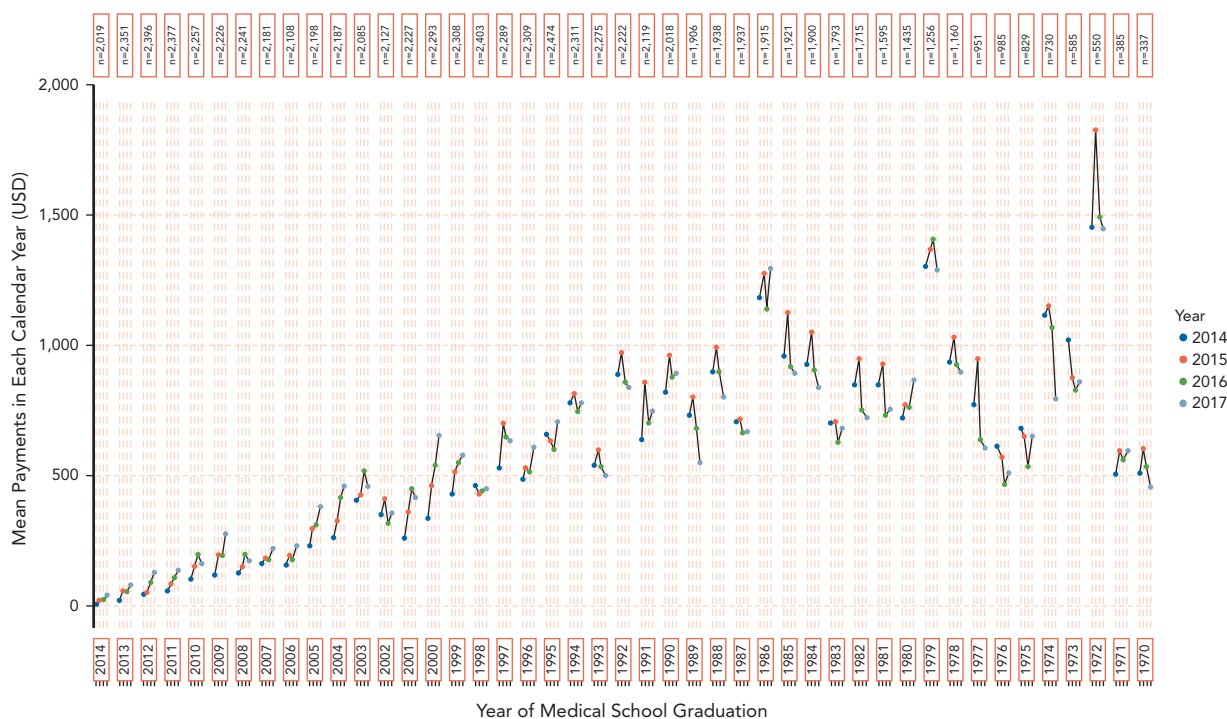
Starting datasets included NPPES, PC, and the subset of OP physicians with a specialty type of medical oncology or internal medicine. Abbreviations: NPI, National Provider Identifier; NPPES, National Plan and Provider Enumeration System; OP, Open Payments; PC, Physician Compare.



eFigure 2. Mean weekly per-physician dollar value of general industry payments to oncologists and internists over the calendar year. In the 2016 leap year, the additional day was included in the 52nd week of the year, and the total was averaged over a 7-day period by multiplying by $\frac{7}{8}$.
^aASCO Annual Meeting; the 2 calendar weeks which span the meeting are shown.



eFigure 3. Full time series decomposition outputs for **(A)** oncologists and **(B)** internists. “Data” shows raw payment data, and is the sum of the “remainder,” “seasonal,” and “trend” components. “Trend” shows nonseasonal trends in payments across the 4-year study period. “Seasonal” shows the payment variation explained by cyclical trends within each calendar year. “Remainder” shows the payment variation unaccounted for either by seasonal or overall trends.



eFigure 4. Mean annual per-physician dollar value of general industry payments to internists over career trajectory, grouped by medical school graduation year (1970–2014). Individual cohorts of physicians were created based on shared graduation year, and payments over the 2014–2017 study period are shown for each cohort. The 2,251 internists who graduated from medical school after 2014 are not shown.

Table 1. Industry Payments to Oncologists From Pharmaceutical Companies Manufacturing PD-1/PD-L1 Drugs, 2014–2017^a

Year	Merck & Co.	Bristol Myers Squibb	EMD Serono/ Pfizer	Genentech/ Roche	Medimmune/ AstraZeneca	Total, PD-1/PD-L1 Companies	Non-PD-1/ PD-L1 Companies
2014	\$71 (\$16; 22.7%)	\$205 (\$12; 6.0%)	\$74 (\$0; 0.0%)	\$253 (\$0; 0.0%)	\$65 (\$0; 0.0%)	\$667 (\$28; 4.3%)	\$139
2015	\$129 (\$71; 54.9%)	\$405 (\$220; 54.3%)	\$112 (\$0; 0.0%)	\$262 (\$0; 0.0%)	\$121 (\$0; 0.0%)	\$1,028 (\$291; 28.3%)	\$197
2016	\$261 (\$173; 66.4%)	\$496 (\$275; 55.5%)	\$158 (\$0; 0.0%)	\$258 (\$10; 4.0%)	\$252 (\$0; 0.0%)	\$1,426 (\$459; 32.2%)	\$203
2017	\$398 (\$241; 60.6%)	\$555 (\$367; 66.0%)	\$180 (\$20; 10.9%)	\$239 (\$31; 12.9%)	\$396 (\$115; 29.1%)	\$1,767 (\$773; 43.7%)	\$182

^aMean, annual, per-physician dollar value of general payments to oncologists from pharmaceutical companies that manufacture a PD-1/PD-L1 agent, and (in parenthesis) the subset of payments from that company associated with its PD-1/PD-L1 drug, and the percentage of payments associated with that drug. In cases where a single PD-1/PD-L1 drug is comarketed by >1 pharmaceutical company, total payments across both companies are included. "Non-PD-1/PD-L1" represents the mean, annual, per physician, per-company value of general payments from the (n=6) pharmaceutical companies that (1) were among the top 20 by market capitalization as of October 2018, (2) market at least one oncology drug, and (3) do not market a PD-1/PD-L1 drug or have one in development; this included Johnson & Johnson, Amgen, Lilly, Gilead, Celgene, and Bayer. Payments are in USD, rounded to the nearest dollar, which may result in small discrepancies between dollar totals and percentages.