



# Congressional Budget Office

June 26, 2017

## **An Analysis of Private-Sector Prices for Physician Services**

Academy Health Annual Research Meeting  
New Orleans, Louisiana

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# Agenda

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- Describe prices for physicians' services in Medicare Advantage plans
- Compare Medicare Advantage and commercial prices to what Medicare fee-for-service (FFS) would have paid for that service
- Compare variation in Medicare Advantage prices to variation in commercial prices

# Motivation

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- Why do physician prices matter?
  - Higher physician prices → higher premiums, less coverage
- Why do physician prices in Medicare Advantage matter?
  - Medicare costs the government \$595 billion a year; Medicare Advantage plans are a quarter of that spending
  - Physician prices affect Medicare Advantage plans' participation → hence federal spending
  - Prices could affect plan bids and federal savings in a premium support system
- Key implications
  - Medicare Advantage prices are informative about how commercial prices are determined

# Summary

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## ■ Levels of and variation in prices

- Medicare Advantage prices are close to Medicare FFS and don't vary much, relative to FFS
- Commercial prices are much higher than Medicare FFS and vary substantially across and within areas

## ■ In- and out-of-network prices

- Medicare Advantage out-of-network prices are very close to in-network prices
- Commercial out-of-network prices are much higher than in-network prices

## ■ Implication: Medicare Advantage prices are constrained by statute and Medicare FFS prices

# Prior Literature on Physician Prices

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## ■ Commercial prices

- Higher than Medicare FFS, other countries (Baker et al., 2013, Laugesen and Glied, 2011, Ginsburg 2010)
- Vary a lot (Newman et al., 2016, Baker et al., 2013)
- Seem to vary based on physician competition, physician-hospital vertical integration (Neprash et al., 2015, Dunn and Shapiro, 2014, Baker et al., 2014)

## ■ Medicare Advantage prices

- Older literature finds Medicare Advantage prices fall somewhere between commercial and FFS prices (MedPac 2003)
- Medicare Advantage prices very similar to Medicare FFS (Trish et al., 2016)

# Data

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- Health Care Cost Institute claims data (2014)
  - Three major insurers (Aetna, Humana, United)
  - 39 million beneficiaries in 50 states + DC
  - 25% of all Americans with employer-sponsored insurance
  - 50% of all Medicare Advantage enrollees
- Data contain:
  - Final prices insurer paid to physician
  - Cost-sharing and deductibles paid by the patient
  - Detailed claim-line level information (CPT codes, modifiers)
- Data exclude:
  - Capitated claims

# Data: Sample of Claims and Services

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## ■ Sample of claims

- Excluded non-physician professionals and certain specialties (e.g., pediatricians)
- Limited settings of services to offices, hospital inpatient and outpatient departments, ambulatory surgery centers
- Excluded private fee-for-service, individual market, and indemnity plans
- Limited to metropolitan statistical areas (MSAs) only

## ■ Selected 21 frequent and costly services

- Commercial: Occurred more than 50,000 times and cost an average of \$450 or more
- Medicare Advantage: Occurred more than 20,000 times and cost more an average of \$300 or more
- OR: Service was among the ten most common in both populations

# Methods

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- Calculated private prices
  - Aggregated adjustments/reimbursements
  - Added patient copays/deductibles and insurer payments
  - Excluded payments  $\leq$  \$0
- Constructed Medicare FFS prices for each observation
  - Calculated base Medicare value (RVU)
  - Adjusted for geographic area (GPCI)
  - Adjusted for setting of service, select characteristics (bilateral claims, assistant at surgery, multiple services)
  - Converted to 2014 dollars
- Cleaned and trimmed sample:
  - Excluded outliers, obvious errors, claims where we can't calculate Medicare FFS price

# Why Compare Private Prices to Medicare FFS Prices?

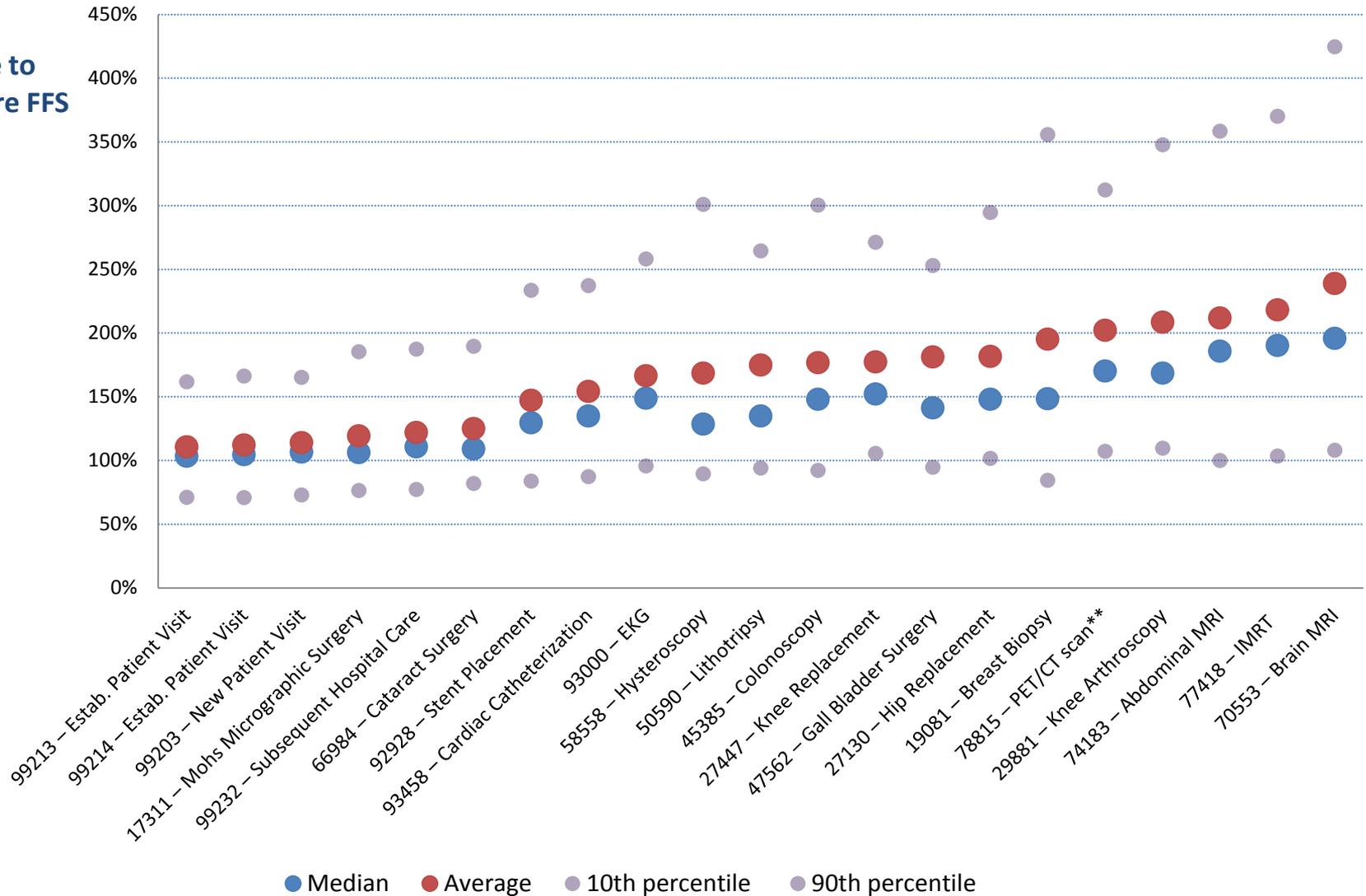
- Compared private prices to what Medicare would have paid for the same service
- Medicare FFS prices are adjusted for:
  - Service intensity (e.g., visit vs. procedure, multiple procedure payment reductions)
  - Geographic area
  - Setting of service (e.g., hospital vs. doctor's office)
- Comparing private prices to Medicare FFS minimizes variation from those sources

# Selected Services

Procedure Code	Service	Number of Commercial Observations	Number of Medicare Advantage Observations	Most Common Provider Specialty
17311	Mohs Micrographic Surgery	50,177	64,868	Dermatology
19083	Breast Biopsy	23,694	6,998	Radiology
27130	Hip Replacement	37,948	37,629	Orthopedics
27447	Knee Replacement	25,560	19,311	Orthopedics
29881	Knee Arthroscopy	55,209	5,838	Orthopedics
45385	Colonoscopy	186,232	92,385	Gastroenterology
47562	Gall Bladder Surgery	53,142	11,553	General surgery
50590	Lithotripsy	21,852	5,872	Urology
58558	Hysteroscopy	48,751	3,906	Obstetrics and gynecology
66984	Cataract Surgery	76,640	215,429	Ophthalmology
70553	Brain MRI	208,856	79,796	Radiology
74183	Abdominal MRI	49,814	18,728	Radiology
77418	PET/CT scan	127,343	173,335	Therapeutic radiology
78815	IMRT	31,794	31,853	Radiology
92928	Stent Placement with Angioplasty	19,534	24,981	Cardiology
93000	EKG	2,452,997	1,137,342	Internal medicine (commercial), cardiology (MA)
93458	Cardiac Catheterization	59,733	57,222	Cardiology
99203	New Patient Visit, Intermediate Complexity	4,212,462	972,554	Family practice (commercial), orthopedics (MA)
99213	Established Patient Visit, Intermediate Complexity	23,144,834	8,082,554	Family practice
99214	Established Patient Visit, High Complexity	17,427,878	8,434,108	Family practice
99232	Subsequent Hospital Care	1,940,314	3,319,705	Internal medicine

# National Price Comparisons—Commercial

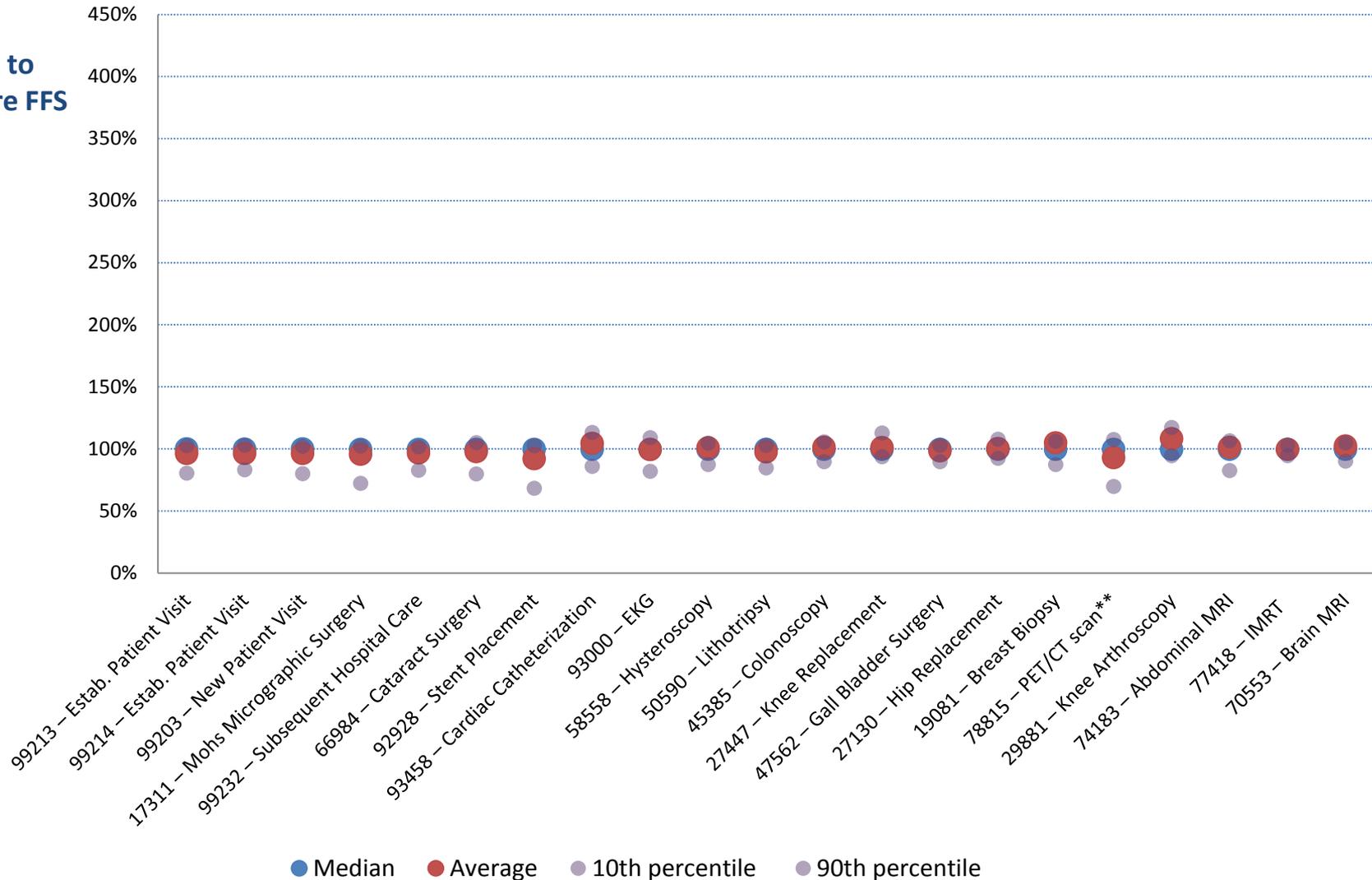
Prices,  
Relative to  
Medicare FFS



\*\*Professional component only

# National Price Comparisons—Medicare Advantage

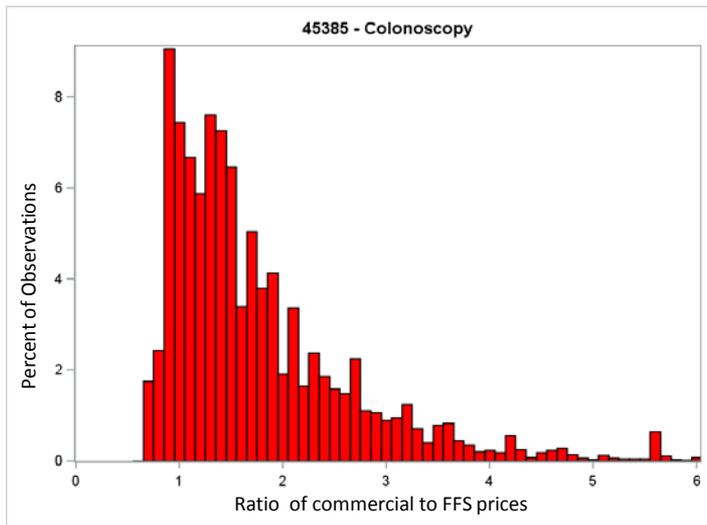
Prices,  
Relative to  
Medicare FFS



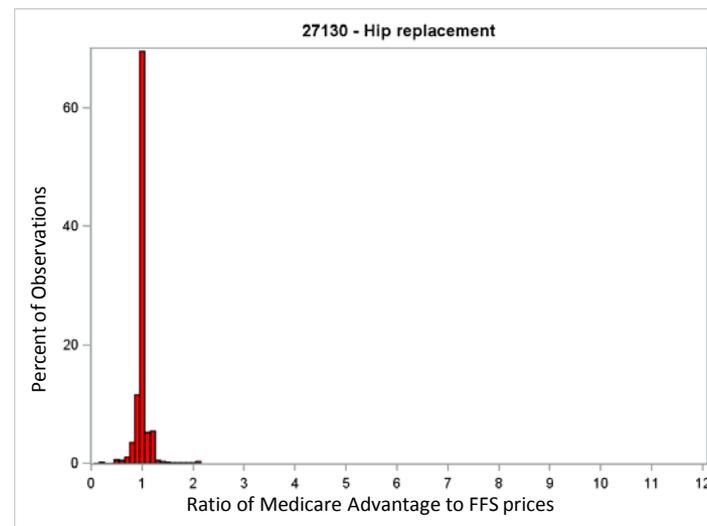
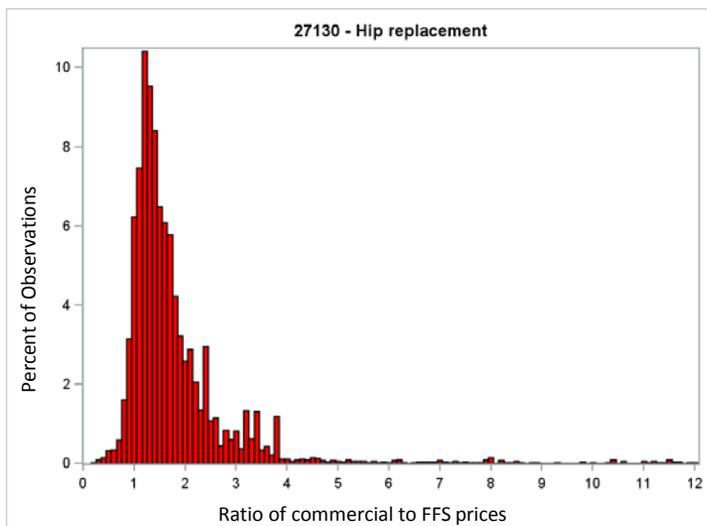
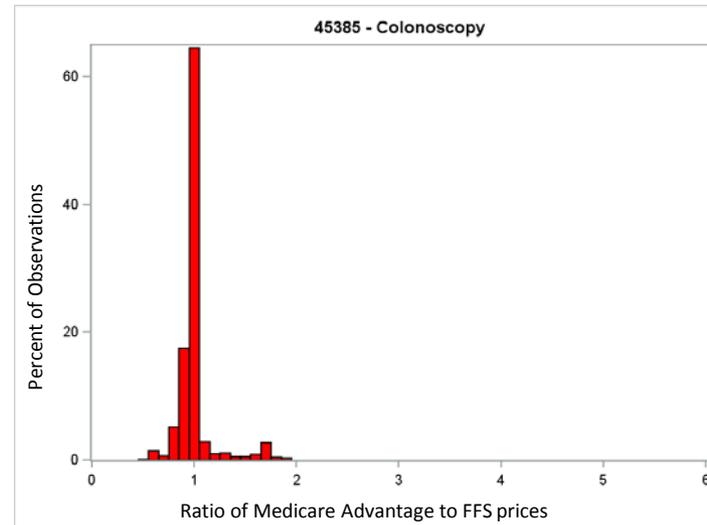
\*\*Professional component only

# Private Prices Relative to Medicare FFS

## Commercial

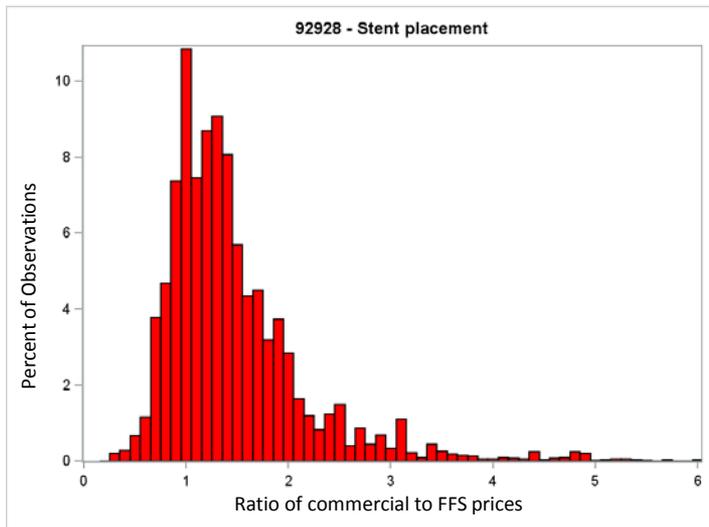


## Medicare Advantage

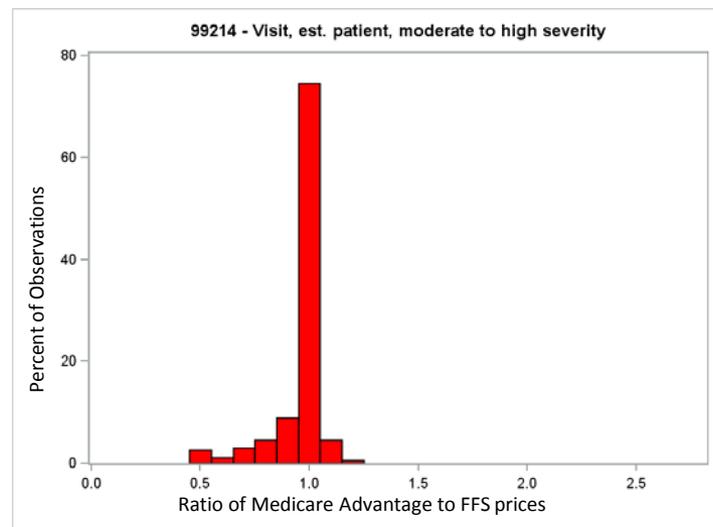
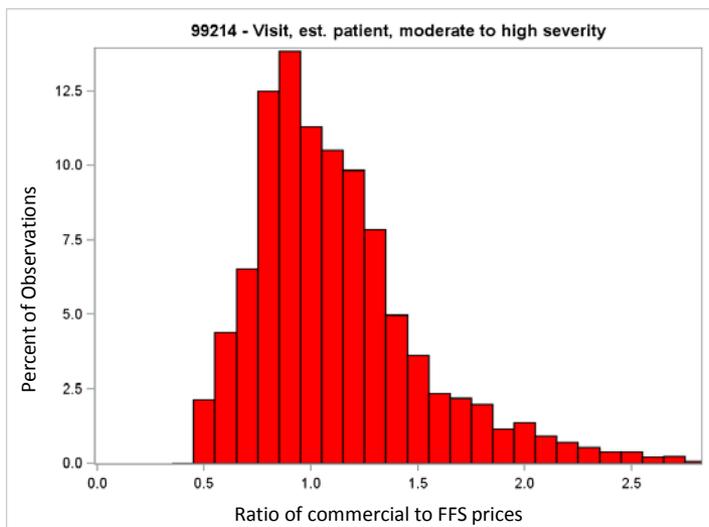
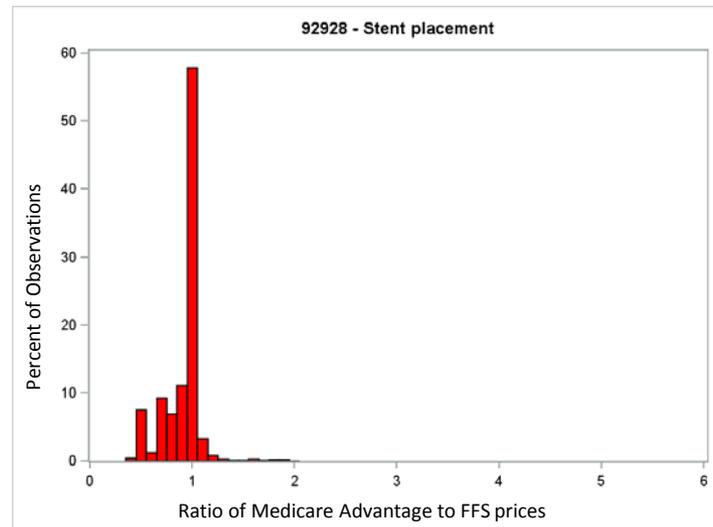


# Private Prices Relative to Medicare FFS

## Commercial

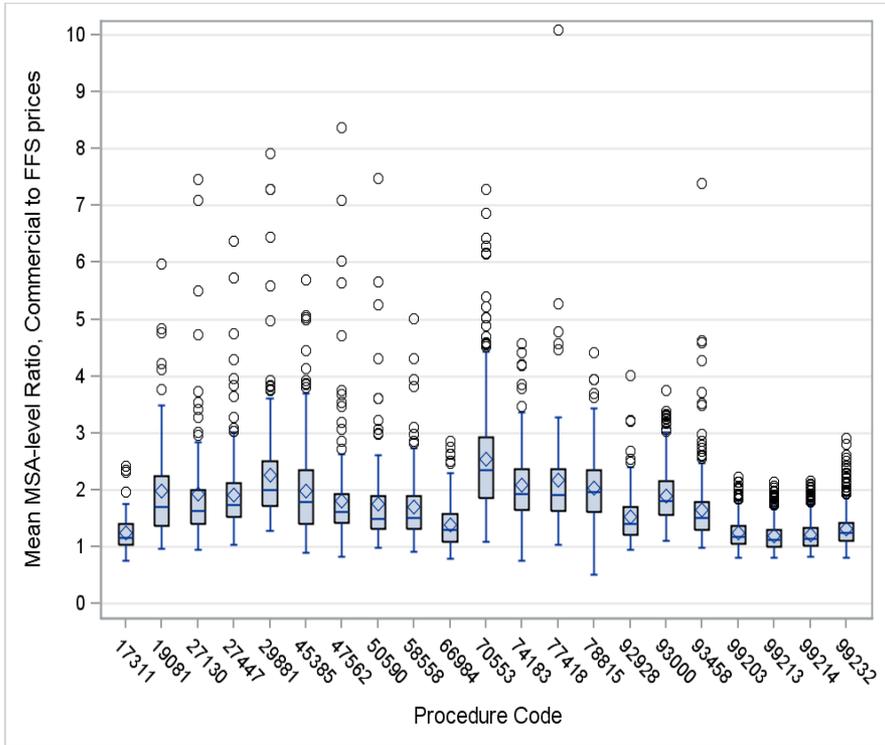


## Medicare Advantage

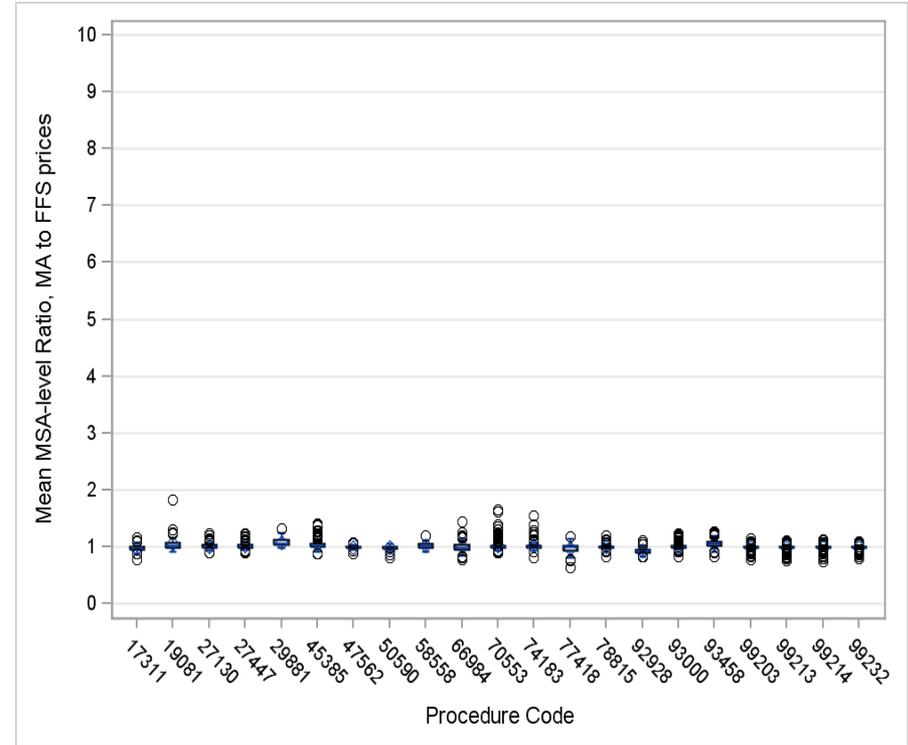


# Variation in Average Prices Across MSAs, Relative to Medicare FFS

## Commercial



## Medicare Advantage



### Procedure codes

17311=Mohs Micrographic Surgery  
 19081=Breast Biopsy  
 27130=Hip Replacement  
 27447=Knee Replacement  
 29881=Knee Arthroscopy

45385=Colonoscopy  
 47562=Gall Bladder Surgery  
 50590=Lithotripsy  
 58558=Hysteroscopy  
 66984=Cataract Surgery

70553=Brain MRI  
 74183=Abdominal MRI  
 77418=IMRT  
 78815=PET/CT scan  
 92928=Stent Placement  
 93000=EKG

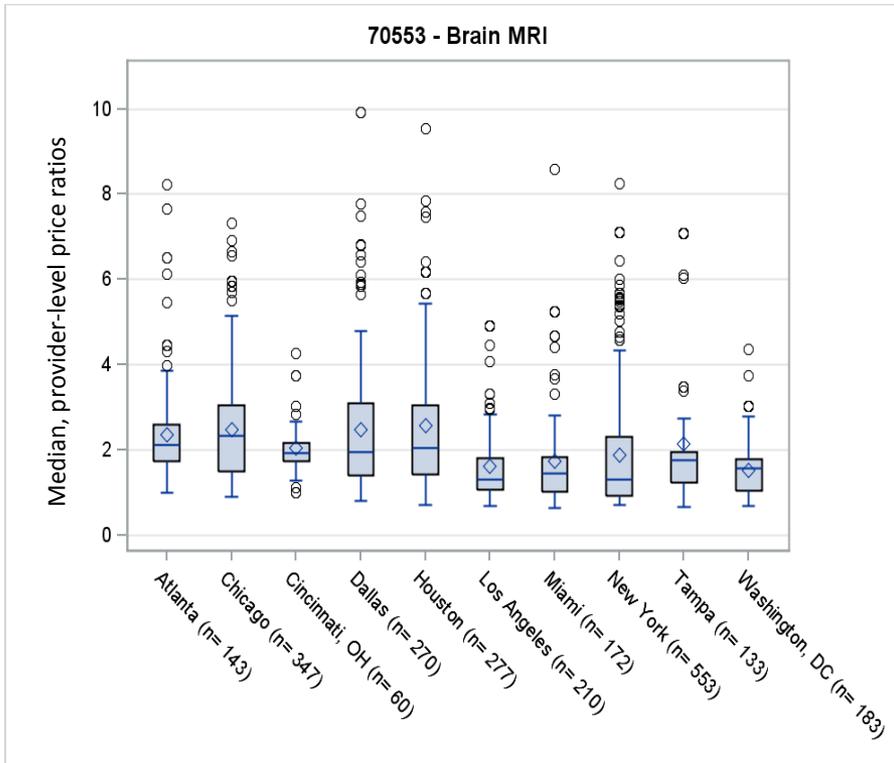
93458=Cardiac Catheterization  
 99203=New Patient Office Visit  
 99213=Established Patient Office Visit  
 99214=Established Patient Office Visit  
 (High Complexity)  
 99232=Subsequent Hospital Care

# Summary of Price Variation Across MSAs for 21 Services

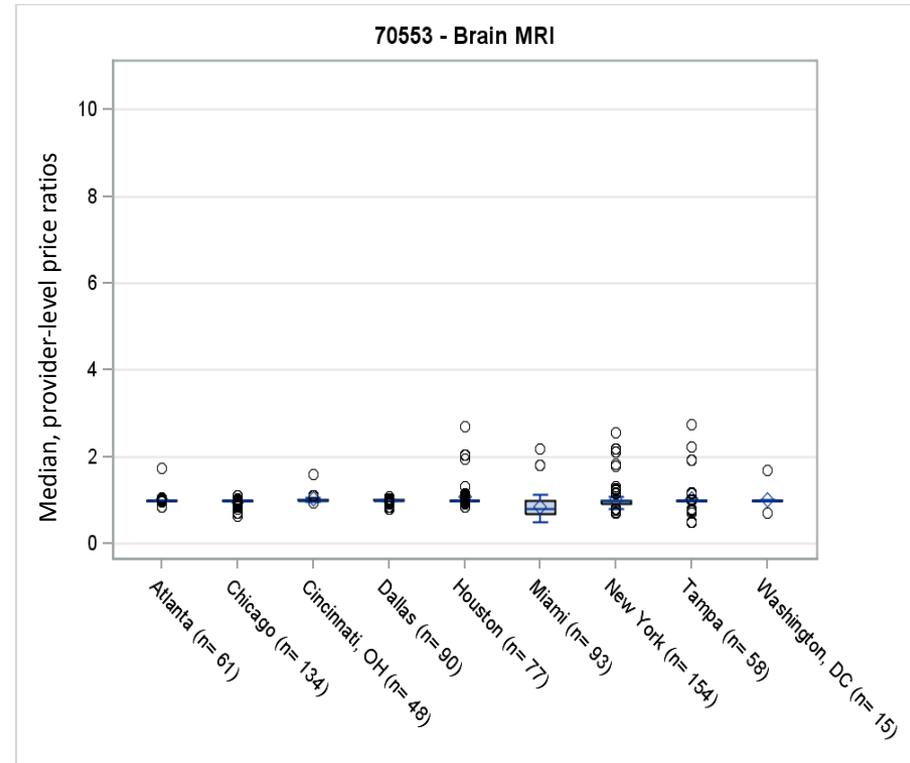
	Commercial	Medicare Advantage
How much more expensive is 90th percentile MSA than the 10th percentile MSA?	1.7 to 2.6 times more	1.1 to 1.2 times more
How many services have more than twofold variation between the 90th and 10th percentiles?	10	0
How many services have more than 1.5X variation between 90th and 10th percentiles?	21	0

# Variation in Median Price Ratios Across Providers Within MSAs

## Commercial

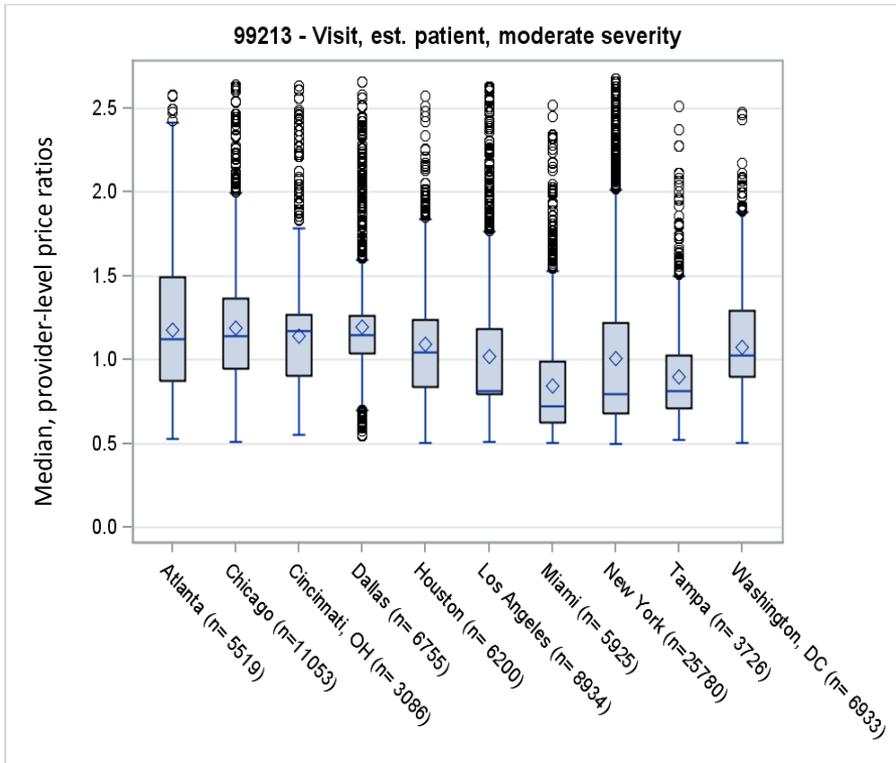


## Medicare Advantage

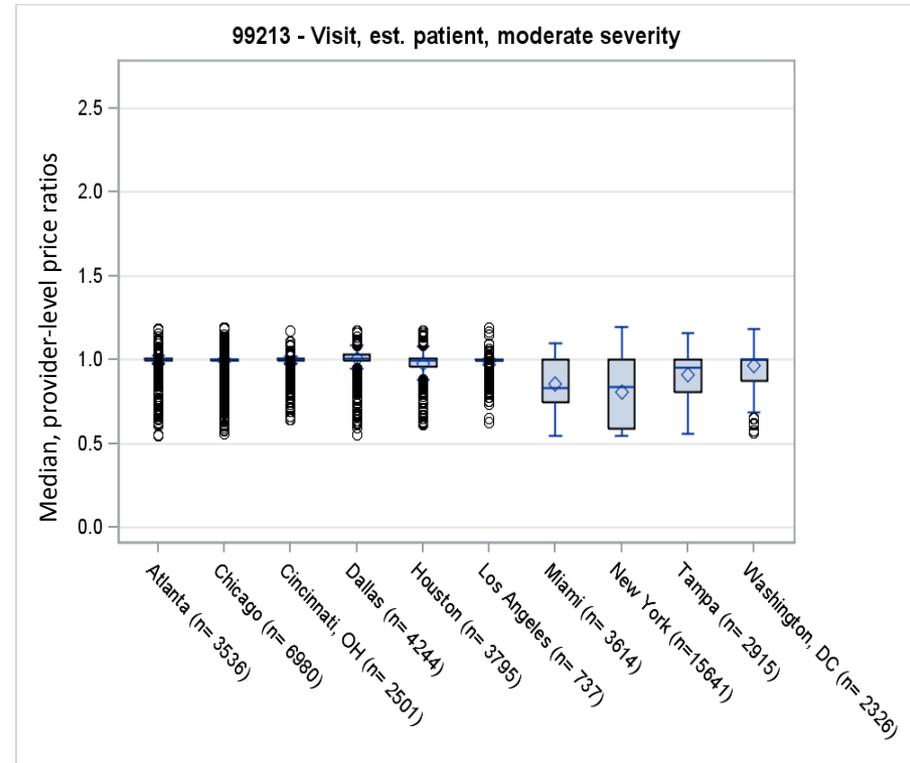


# Variation in Median Price Ratios Across Providers Within MSAs

## Commercial



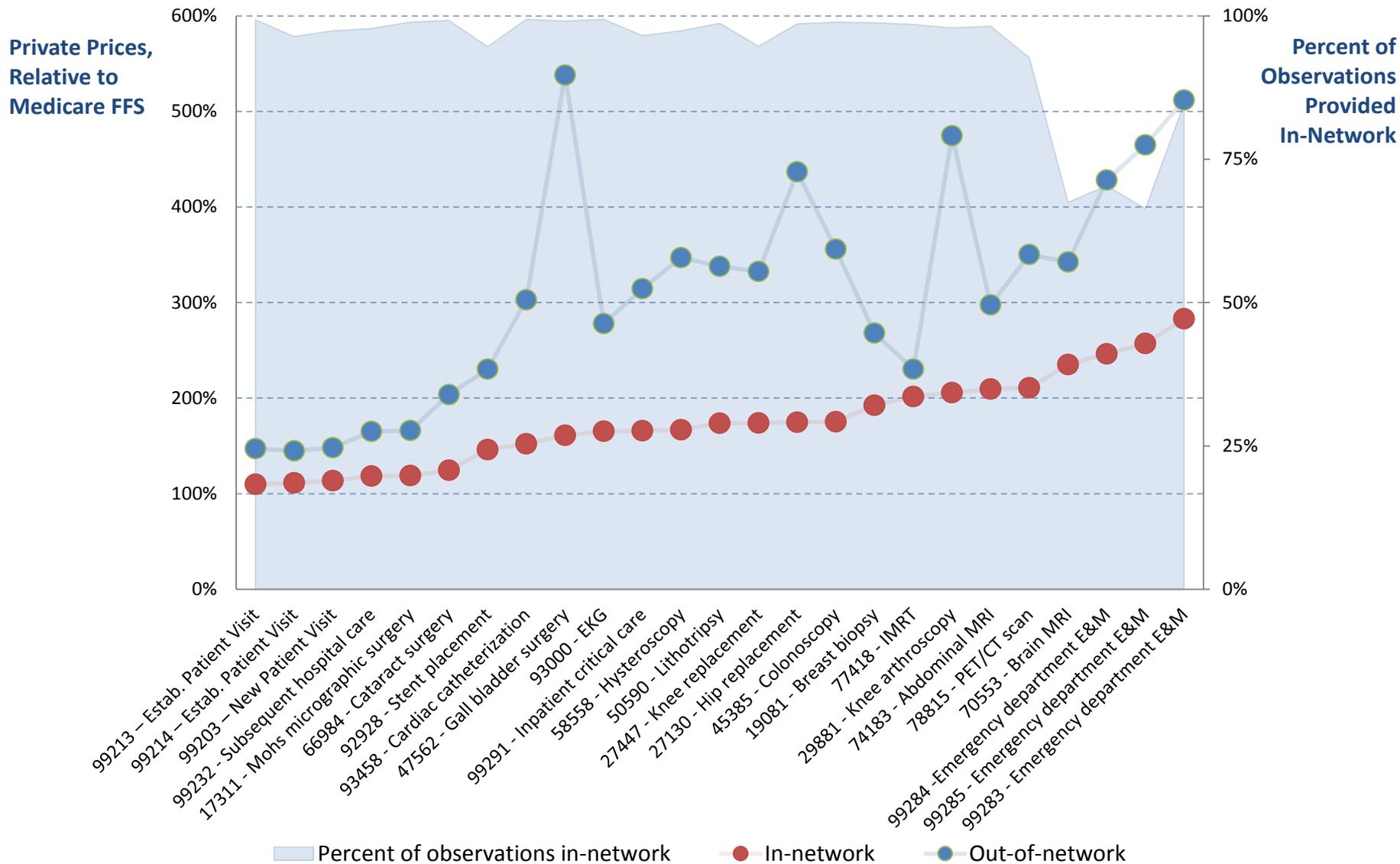
## Medicare Advantage



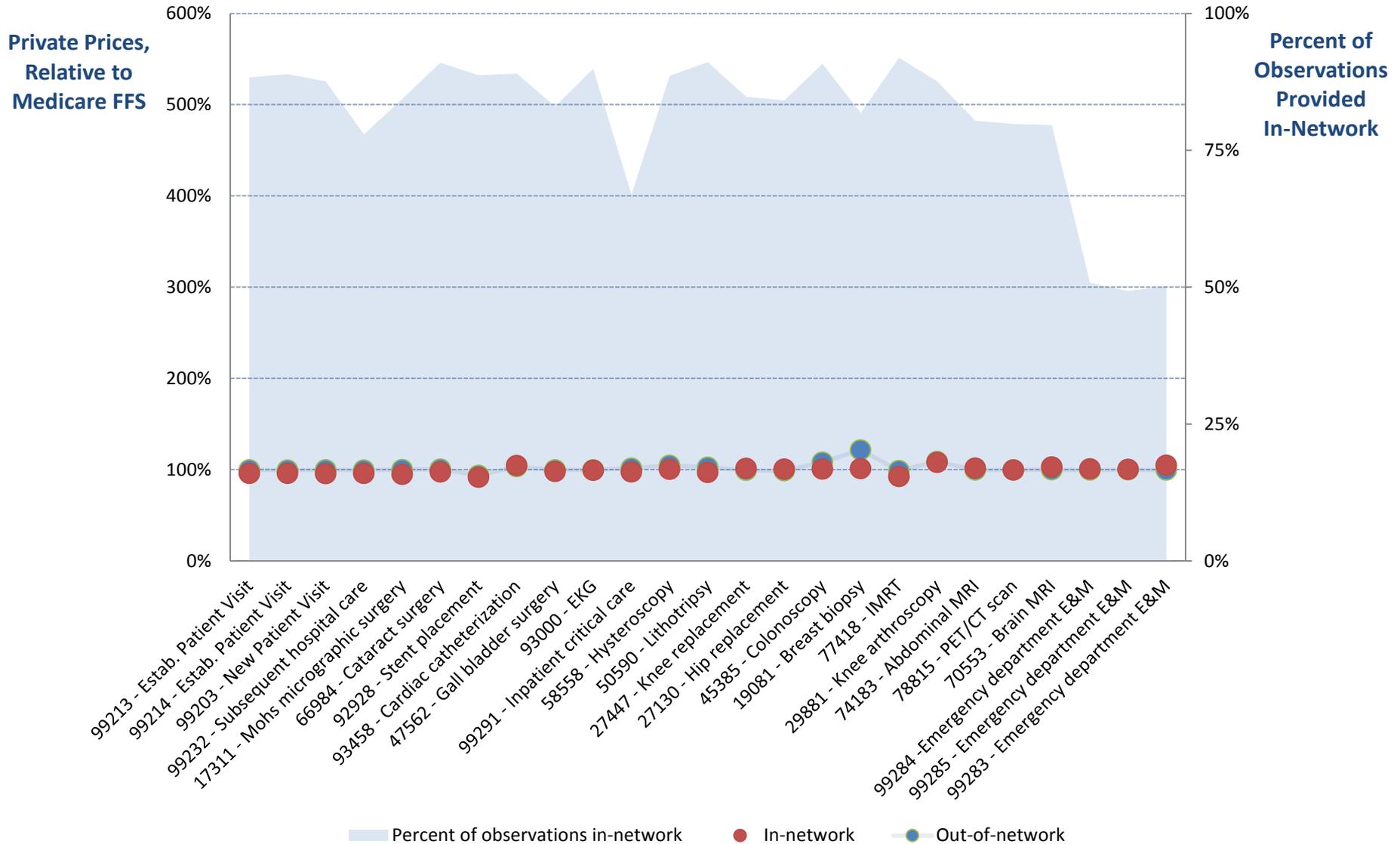
## Summary of Price Variation Across Providers Within MSAs for 21 Services

	Commercial	Medicare Advantage
How much more expensive is 90th percentile provider than the 10th percentile provider?	1.6 to 2.7 times more	1.1 to 1.8 times more
How many services have more than twofold variation between the 10th and 90th percentile providers, on average?	6	0
How many services have more than 1.5 X variation between the 10th and 90th percentile providers, on average?	21	1

# In- and Out-of-Network Prices: Commercial



# In- and Out-of-Network Prices: Medicare Advantage



# Conclusion

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- Commercial prices are (sometimes substantially) higher than Medicare FFS
- Medicare Advantage prices are very close to Medicare FFS
- Commercial prices vary substantially across areas and within areas; Medicare Advantage prices co-vary with Medicare FFS
- Out-of-network prices are substantially higher for commercial services; Medicare Advantage prices aren't

# Limitations

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- Data contain three insurers
- Analysis focused on a limited set of services
- Comparing to Medicare FFS reduces price variation only if FFS adjustments correctly capture that variation
- Capitated payments are excluded but extra payments to providers (e.g., quality bonuses) can't be observed

# Implications

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- The Social Security Act constrains the price a physician can charge when a Medicare beneficiary goes out of network
- Limits on out-of-network pricing may limit in-network prices