



U.S., et al. v. Anthem, Inc. and Cigna Corp.

Phase 2 Testimony of David Dranove, Ph.D.

**PLAINTIFFS'
EXHIBIT**

U.S. v. Anthem et al., Civ. No. 16-cv-1493

PDX033

(Public, Redacted Version)

Summary of Opinion

- Merger substantially harms competition in 70 well-defined antitrust markets
 - Sales to large group employers in each of the 35 CBSAs
 - Purchase of healthcare services by commercial health insurers in same CBSAs
- Static and dynamic effects
- Entry, repositioning, and efficiencies will not offset or prevent harm

Product Market: Methodology

- Identify candidate market
- Apply hypothetical monopolist test
 - Would a hypothetical monopolist that controls all present and future sales of the candidate products profitably impose a SSNIP?
 - SSNIP = Small but Significant and Non-transitory Increase in Price, usually about 5% or 10%

Product Market: Methodology

- Targeted customers and “price discrimination markets”
 - Two requirements under *HMG*: differential pricing and limited arbitrage
 - Appropriate where each customer pays an individually determined price
 - Markets can be as small as a single customer

Product Characteristics:

Funding type

- Self-insured (ASO)
- Fully-insured (FI)
- Alternative Funding
 - Level- or balanced-funding
- All can involve
 - Claims administration
 - Access to provider networks

Seller Characteristics: Insurers

- Big Four national carriers
 - Blues, United, Aetna, and Cigna
- Non-national carriers
 - Include provider-sponsored plans
 - Geographically limited
- TPAs

Customer Characteristics: Large Groups

- Regulations distinguish large groups from small groups
 - 100+ in CA, CO, NY, and VT
 - 50+ everywhere else
- Industry distinguishes between large and small groups in ordinary course
- The larger the customer, the more likely to self-insure
- Many have employees in multiple locations

Product Market Definition: Analysis

- Commercial health insurance sold to large groups is a relevant product market
- Market includes all funding types and plan designs
 - ASO, FI, PPO, HMO
- Large HMOs like Kaiser are included in market shares

“Smallest Market Principle”

- Mr. Curran: “under the guidelines and under the case law, you’re supposed to start with the narrowest possible geographic market It says in the product market section, the smallest market principle; and then in the geographic section, it says follow the same thing.”

“Smallest Market Principle”

- *HMG* section 4.1.1:
 - “The hypothetical monopolist test ensures that markets are not defined *too narrowly*”
 - “it does not lead to a single relevant market”
 - “Because the relative competitive significance of more distant substitutes is apt to be *overstated* by their share of sales, when the Agencies rely on market shares and concentration, they *usually* do so in the smallest relevant market satisfying the hypothetical monopolist test”

Product Market Definition: Analysis

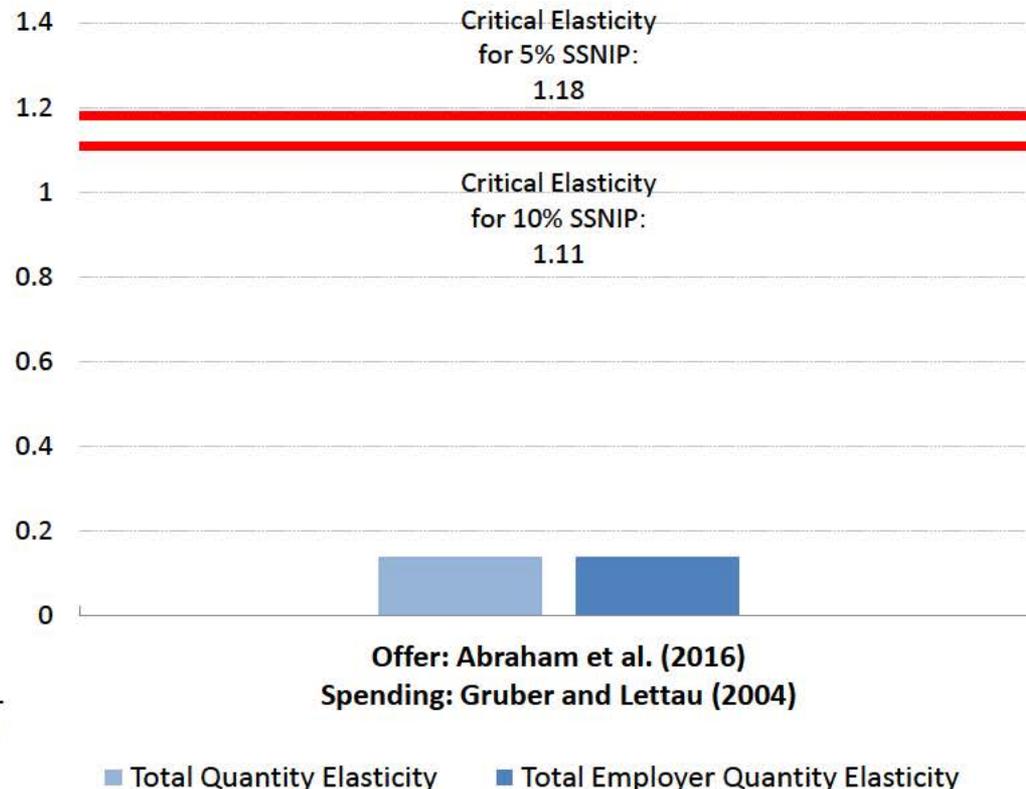
- Large accounts are targeted customers under the *Horizontal Merger Guidelines*
 - Identifiable
 - Prices determined individually
 - Arbitrage impossible
- Common needs → similar competitive conditions

Product Market Definition: Analysis

- Passes hypothetical monopolist test
 - Forgoing the purchase of health insurance is not reasonably interchangeable with insurance products
 - Virtually all large employers offer health insurance to their employees
 - Confirmed empirically using critical elasticity (next slides)
 - Self-supply is not reasonably interchangeable

Product Market Definition: Analysis

- SSNIP is successful if actual elasticity is less than critical elasticity
- Published research estimates of elasticity confirm that SSNIP would be successful



Sources: Dranove Initial Report, Tables D-4 and D-5
Note: Abraham et al. (2016) elasticity is for employers with 100-999 employees; Gruber and Lettau (2004) spending elasticity is for employers with 50-499 employees.

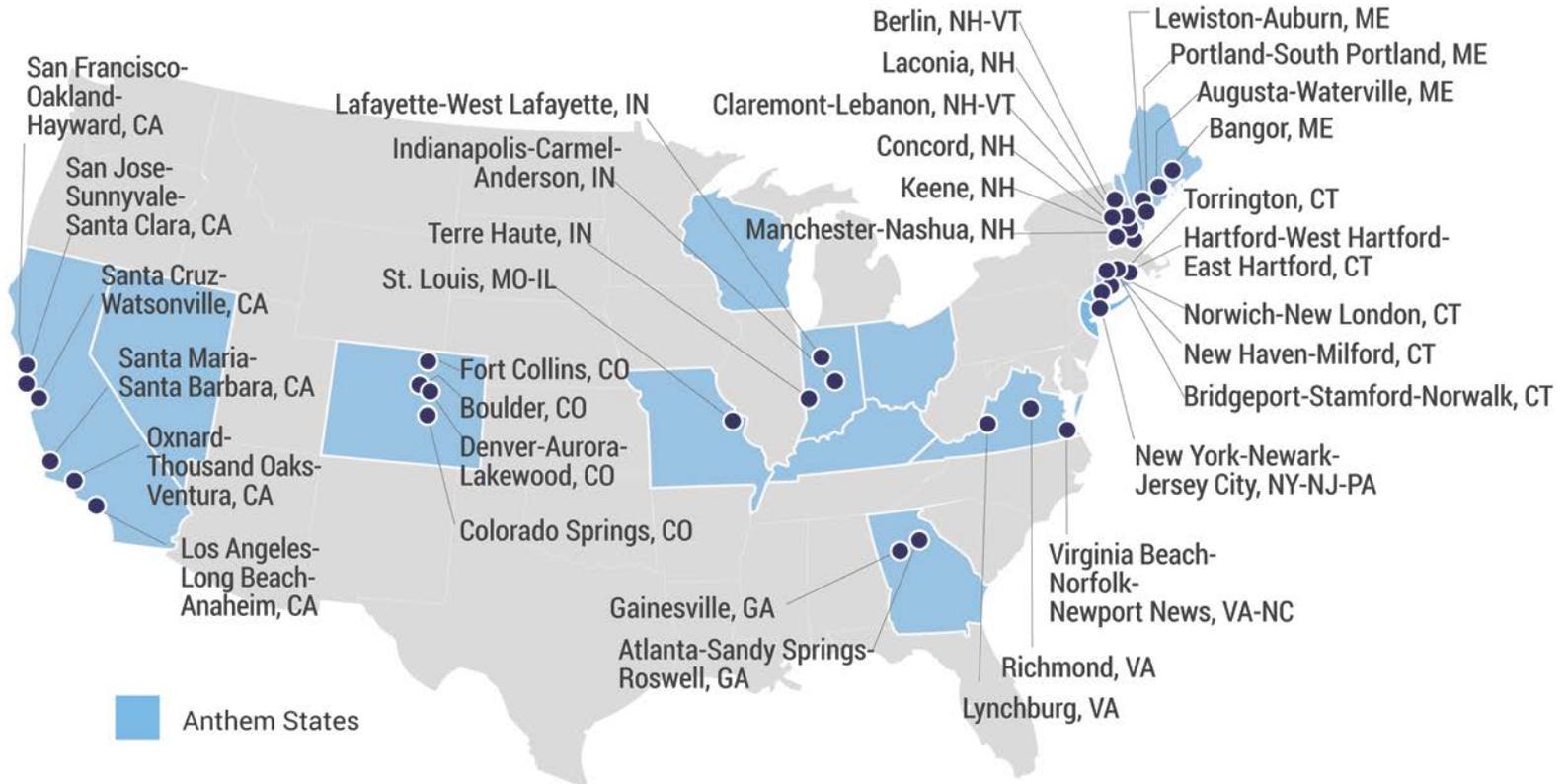
Geographic Market: Methodology

- Purpose: identify geographies where merger may affect competition
- Similar methodology to product market
 - Identify candidate market
 - Apply hypothetical monopolist test
 - Aggregation of customers

Geographic Market: Methodology

- “Price discrimination markets” defined around customer location
 - Prices are determined individually
 - Arbitrage is impossible
- Supplier location irrelevant except to extent it affects ability to reach the targeted customers

Geographic Markets: 35 CBSAs

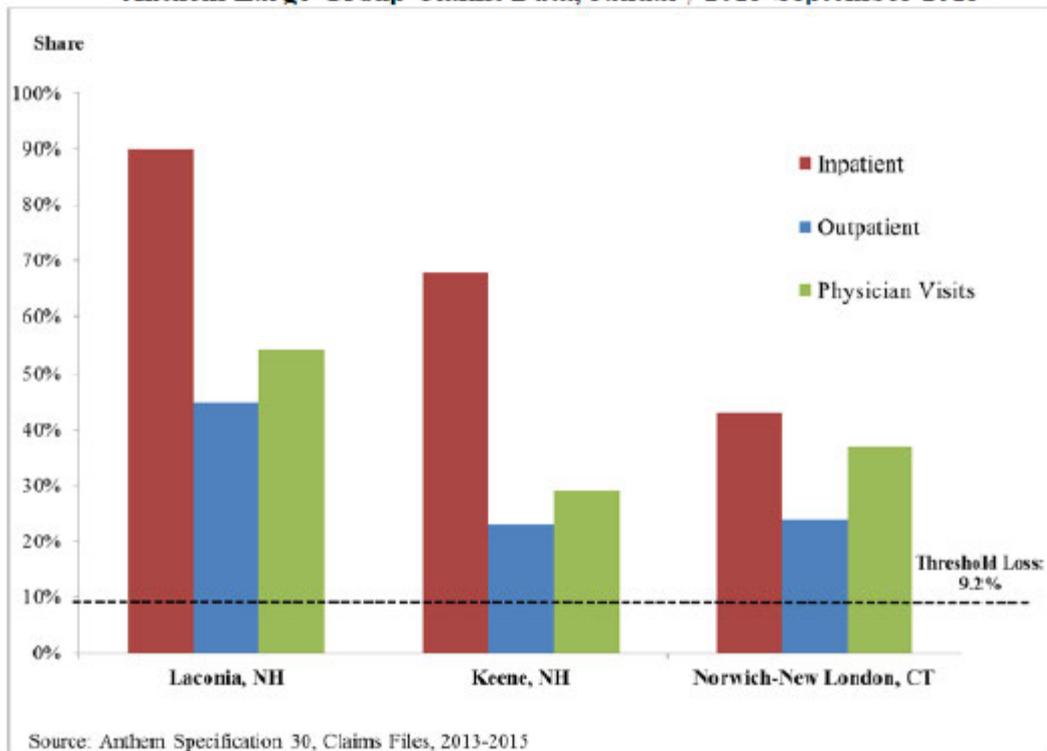


35-CBSA Geographic Market: Analysis

- Each CBSA is a relevant geographic market
- Passes the hypothetical monopolist test
 - Forgoing insurance and self-supply not reasonably interchangeable with insurance products
 - Large employers won't move to another CBSA in response to a 5–10% increase in health insurance prices
- Consistent with industry practice
 - *E.g.*, Cigna's "go deep" markets
 - Testimony about Virginia

Anthem Opening Slide 9

Figure 3
Utilization of Providers Located Outside of Alleged Geographic Market
by Large-Group Enrollees Residing in Alleged Geographic Markets
Anthem Large-Group Claims Data, January 2013-September 2015



Source: Fowdur Opening Report, Figure 3

Market Shares: Data

- Similar data as Phase 1
 - HLI, Mark Farrah, various public sources
 - 17 CIDs
 - 8 Blues from Phase 1 didn't report county-level data
 - 3 other insurers didn't report any lives in the 35 CBSAs
 - Supplemented with BlueCard financial data
 - Supplemented with HLI enrollment data for 46 insurers

Market Shares: Methodology

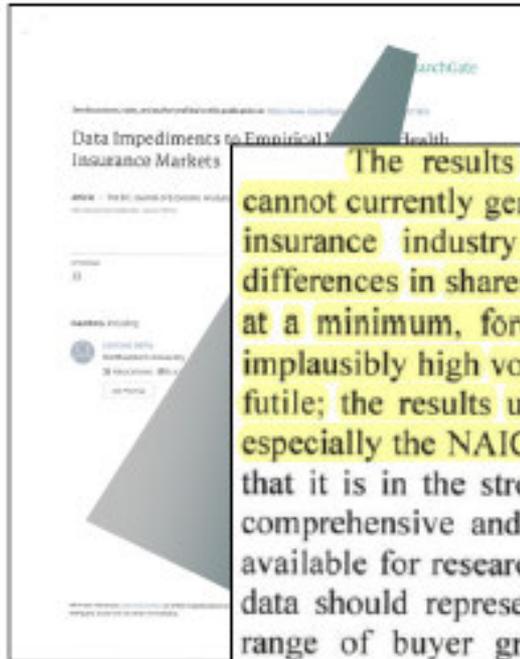
- Construction of Market Shares
 - Enrollment within each CBSA
 - Reflects competitive strength of each insurer
 - Allows use of Census-based denominator
 - Fits available data
 - Consistent with industry practice
 - Treat Blues collectively except those with overlap
 - Also calculated shares with Blues separate

Numerators: CID Enrollment Data +HLI

- Large group enrollment in CBSA
- 63 total insurers (17 from CIDs and 46 from HLI)

Anthem Opening Slide 7

Prof. Dranove Has Admitted that the Public Data He Relies on Is Unreliable



The results in this paper show that researchers and antitrust analysts cannot currently generate accurate empirical analyses of competition in the health insurance industry using readily-available market share data. The marked differences in shares and concentration reported across different data sources will, at a minimum, force researchers to choose among competing data sets. The implausibly high volatility within data sets suggests that such an endeavor may be futile; the results using any of the national data sets that we have considered, especially the NAIC and AMA data, might be far from convincing. We conclude that it is in the strong interest of the nation for a government entity to collect comprehensive and accurate data on health insurance markets and to make it available for research and policy analysis. In order to be maximally useful, such data should represent enrollees in both fully and self-insured plans across the range of buyer groups (individual, small group, large group), and include geographic identifiers.

Denominator: Two Approaches

1. Estimate market size
from public data
sources

2. Calculate sum of
numerators

Denominator is the
larger of the two

Census Approach Exceeded the Build-Up for 24 of the 35 CBSAs

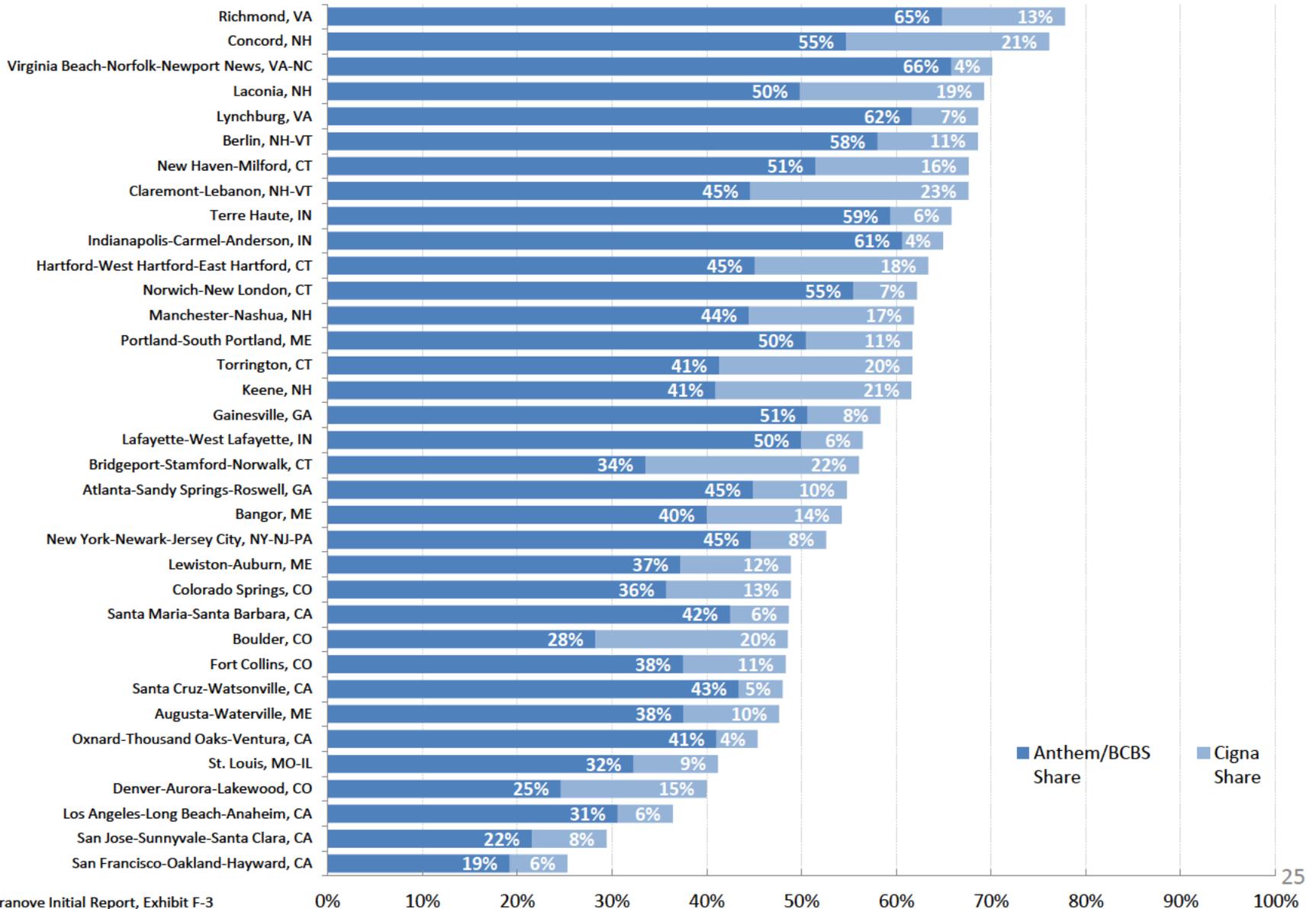
Census approach larger

1. Atlanta-Sandy Springs-Roswell, GA
2. Augusta-Waterville, ME
3. Bangor, ME
4. Berlin, NH-VT
5. Boulder, CO
6. Claremont-Lebanon, NH-VT
7. Denver-Aurora-Lakewood, CO
8. Fort Collins, CO
9. Gainesville, GA
10. Hartford-West Hartford-East Hartford, CT
11. Indianapolis-Carmel-Anderson, IN
12. Keene, NH
13. Laconia, NH
14. Lafayette-West Lafayette, IN
15. Lewiston-Auburn, ME
16. Los Angeles-Long Beach-Anaheim, CA
17. Lynchburg, VA
18. Manchester-Nashua, NH
19. New Haven-Milford, CT
20. Portland-South Portland, ME
21. Santa Maria-Santa Barbara, CA
22. St. Louis, MO-IL
23. Terre Haute, IN
24. Torrington, CT

Build-Up approach larger

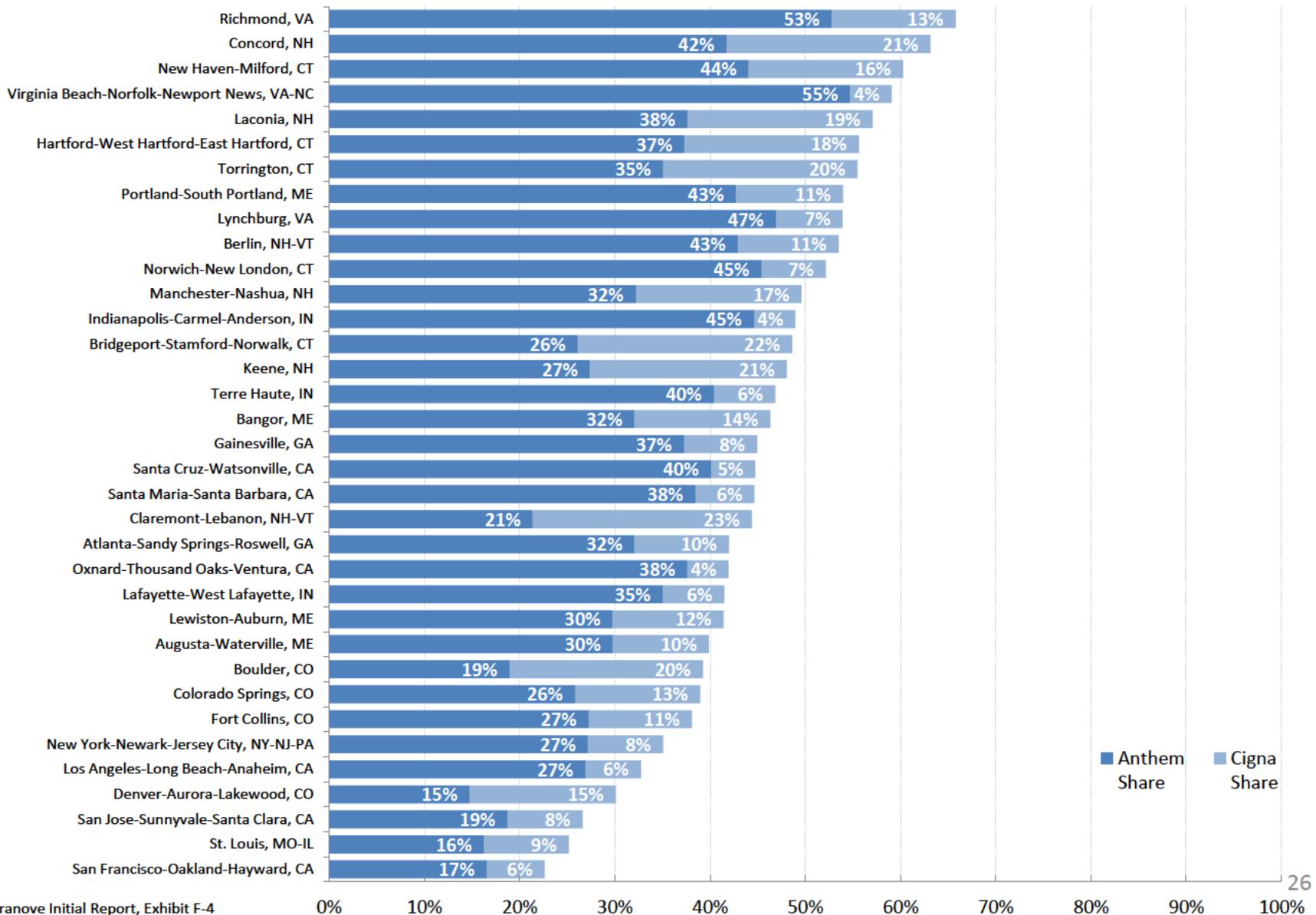
1. Bridgeport-Stamford-Norwalk, CT
2. Colorado Springs, CO
3. Concord, NH
4. New York-Newark-Jersey City, NY-NJ-PA
5. Norwich-New London, CT
6. Oxnard-Thousand Oaks-Ventura, CA
7. Richmond, VA
8. San Francisco-Oakland-Hayward, CA
9. San Jose-Sunnyvale-Santa Clara, CA
10. Santa Cruz-Watsonville, CA
11. Virginia Beach-Norfolk-Newport News, VA-NC

Large Group Shares in 35 CBSAs ASO+FI, Blues Combined

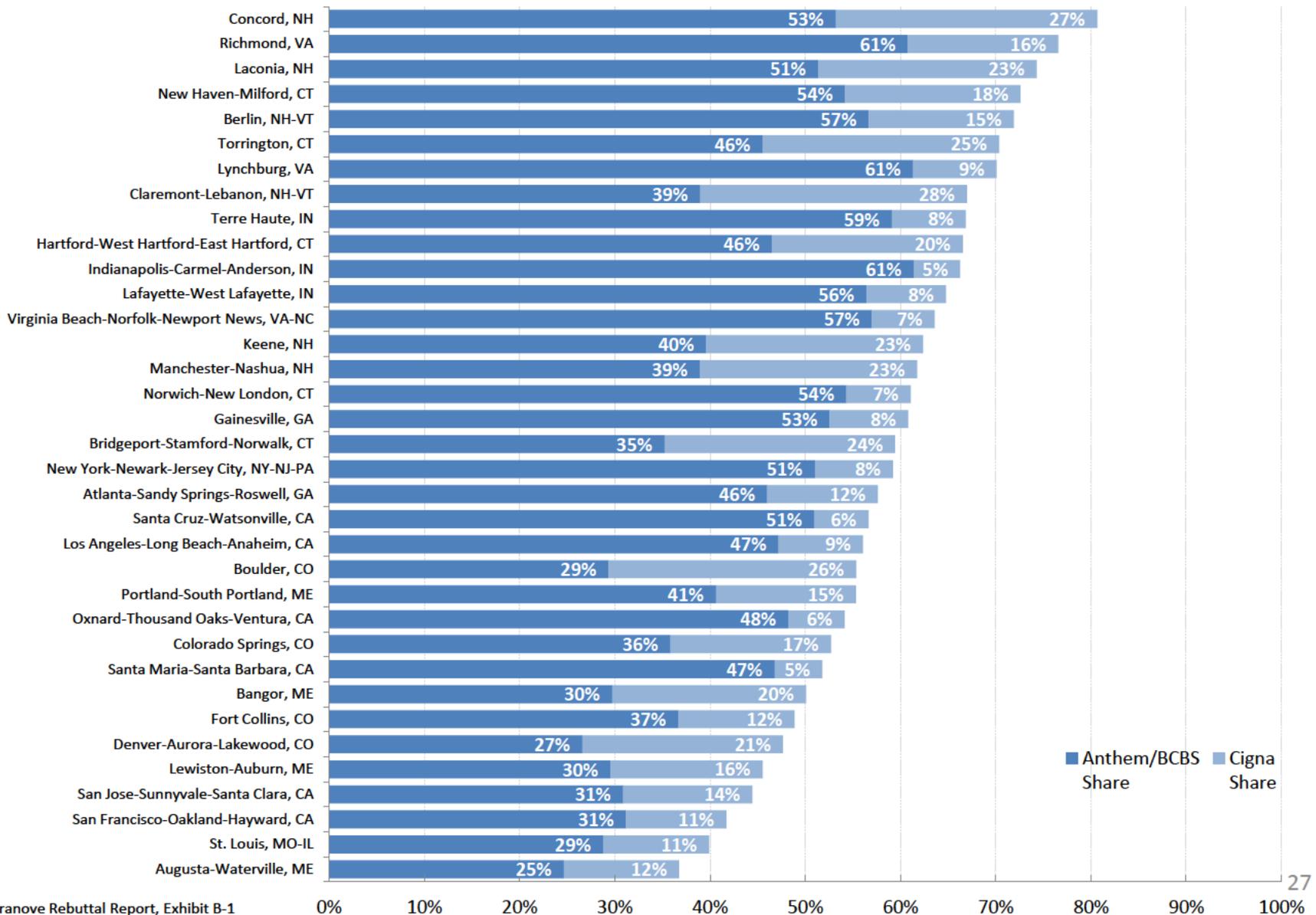


Large Group Shares in 35 CBSAs

ASO+FI, Blues Separate

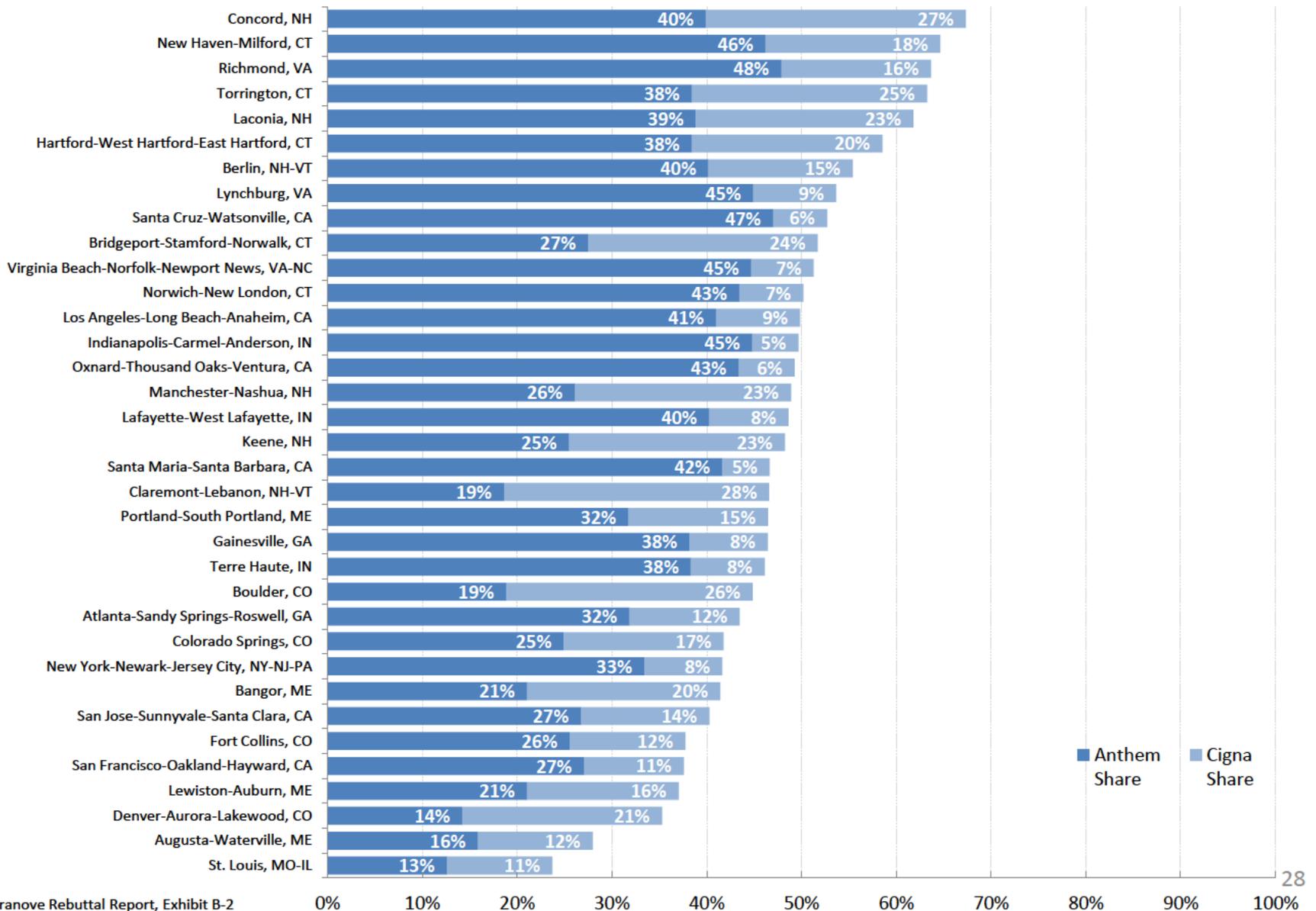


Large Group Shares in 35 CBSAs ASO Only, Blues Combined



Large Group Shares in 35 CBSAs

ASO Only, Blues Separate



Competitive Effects: Overview

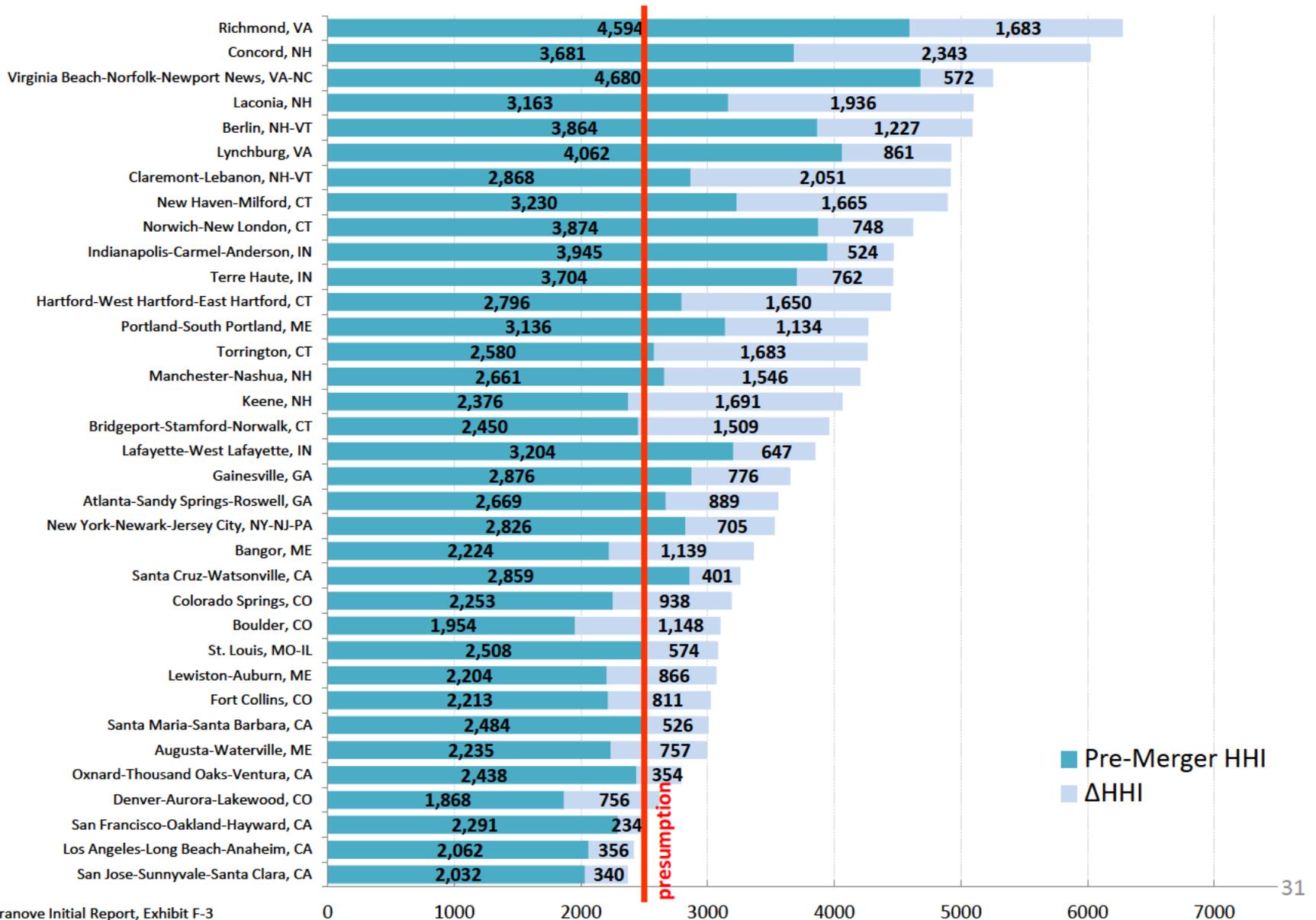
- Structural analysis: market concentration
- Closeness of competition
 - Qualitative and quantitative evidence
- Static price effects
- Dynamic effects

Concentration: HHIs

- Under *Horizontal Merger Guidelines*, mergers that result in an HHI above 2,500 with a change of more than 200 are presumptively anticompetitive
- Merger presumptively anticompetitive in 33 of the 35 CBSAs

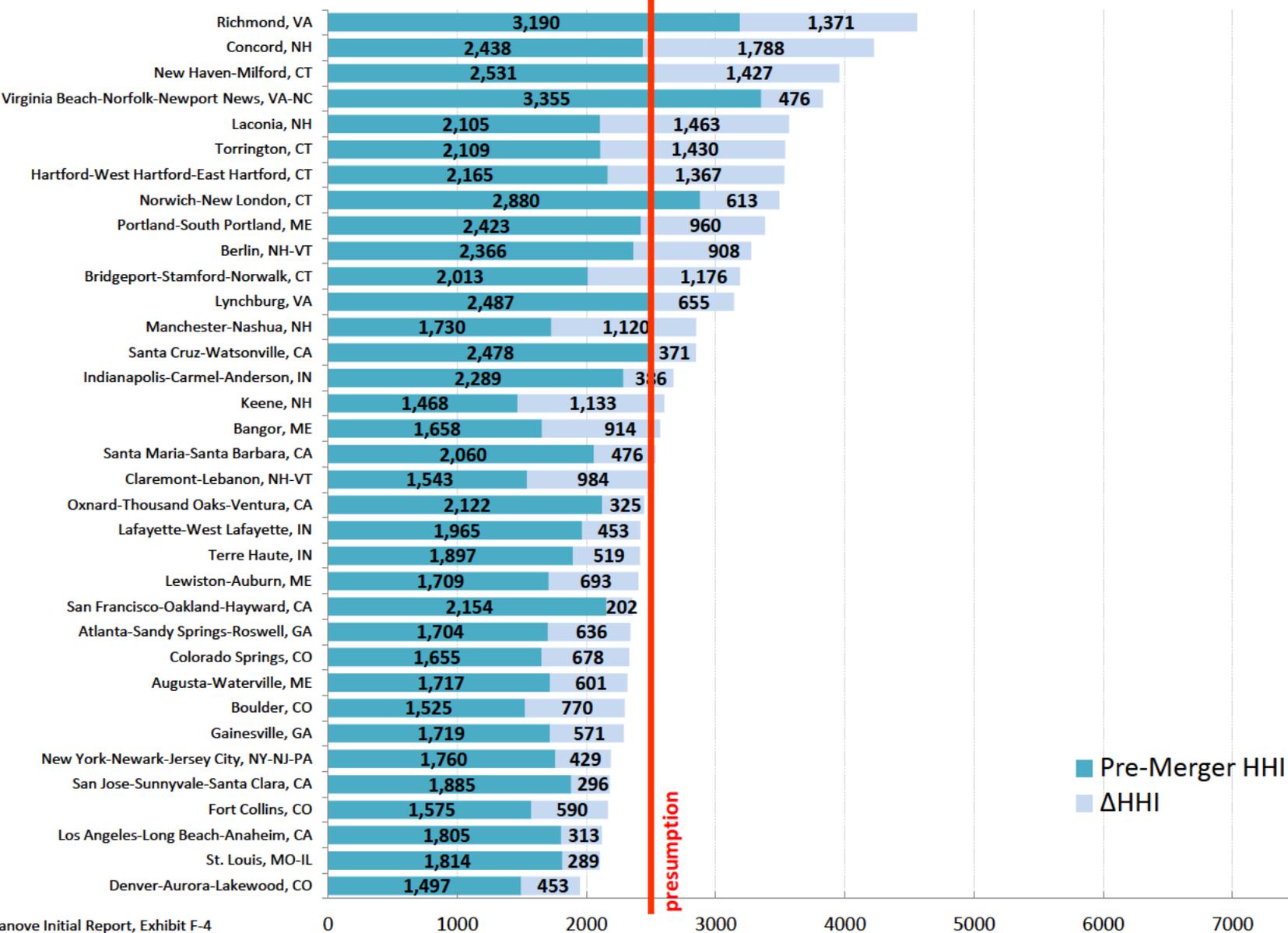
Change in Concentration: Large Groups in 35 CBSAs

ASO+FI, Blues Combined



Change in Concentration: Large Groups

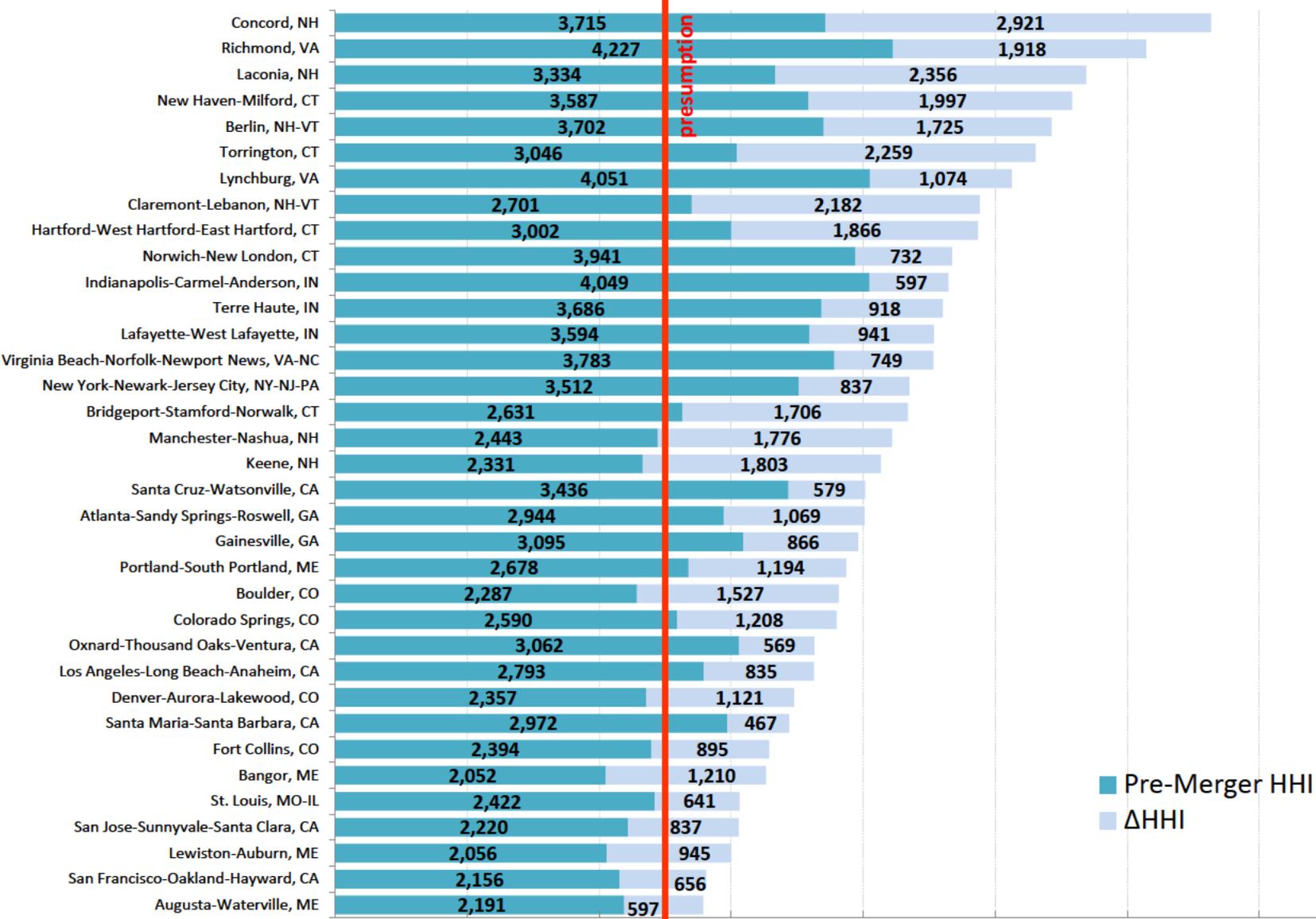
35 CBSAs, ASO+FI, Blues Separate



Source: Dranove Initial Report, Exhibit F-4

Change in Concentration: Large Groups

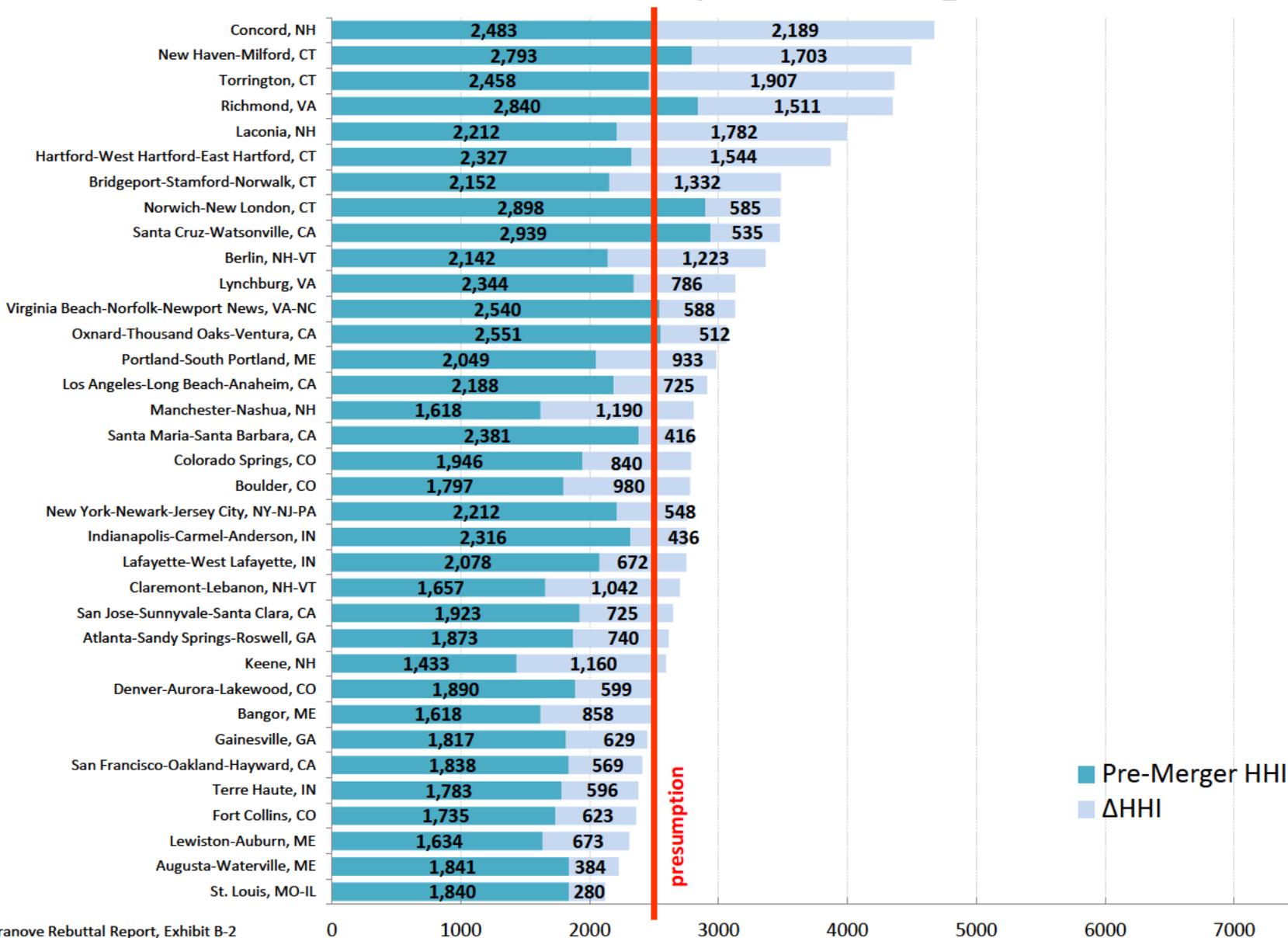
35 CBSAs, ASO Only, Blues Combined



Source: Dranove Rebuttal Report, Exhibit B-1

Change in Concentration: Large Groups

35 CBSAs, ASO Only, Blues Separate



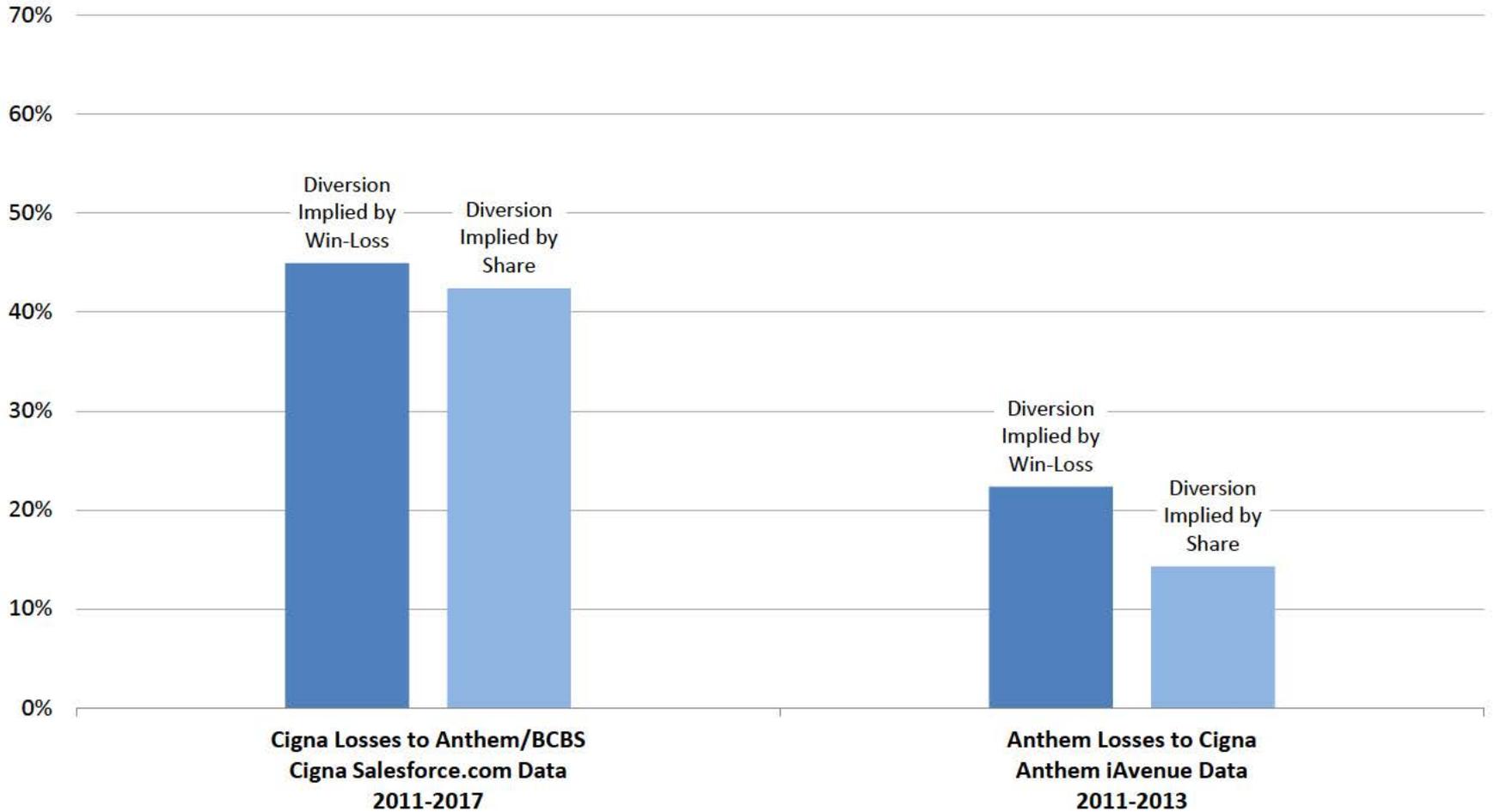
Loss of Head-to-Head Competition

- Ordinary course documents
 - 
- Account-specific examples
 - Examples cited in reports
 - Broker testimony from trial

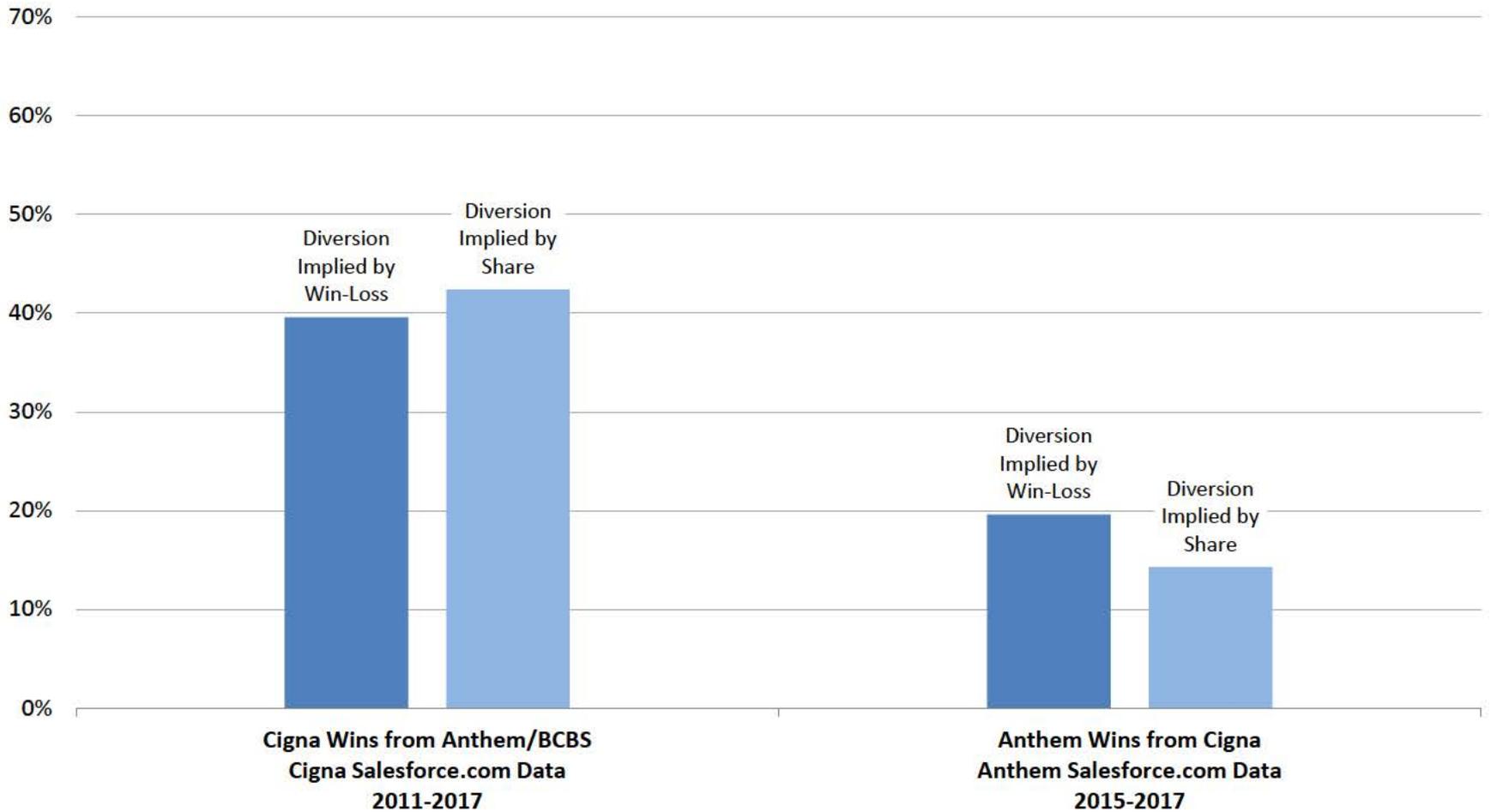
Win/Loss Data

- Parties maintain win/loss data in ordinary course
 - Tracks wins, losses, and customer information
- Cigna: Salesforce.com
- Anthem: iAvenue, Microsoft Access, and Salesforce.com
- Condition on incumbency
- Analyzed in the aggregate and on a state-by-state basis

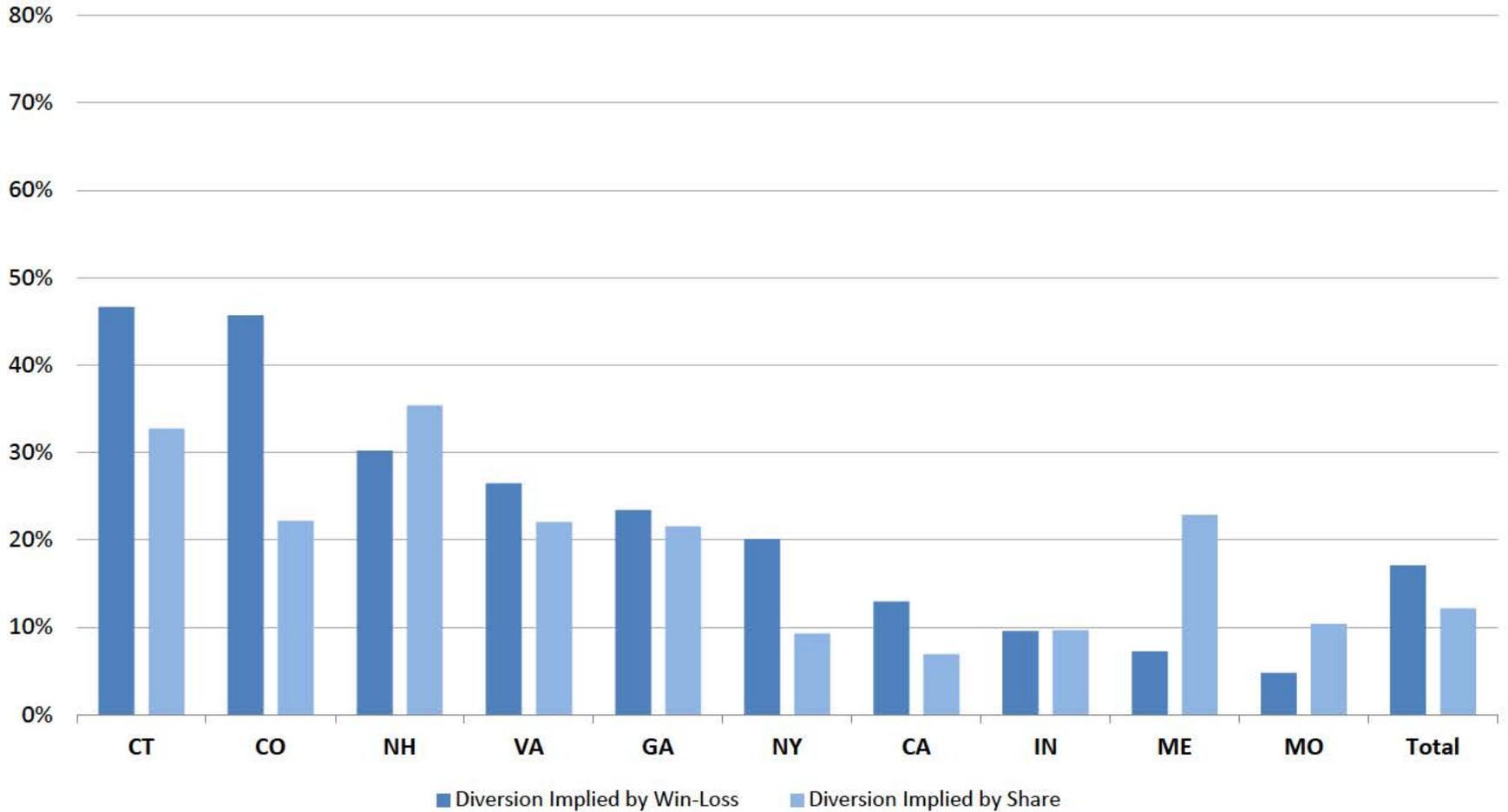
Win/Loss Results



Win/Loss Results

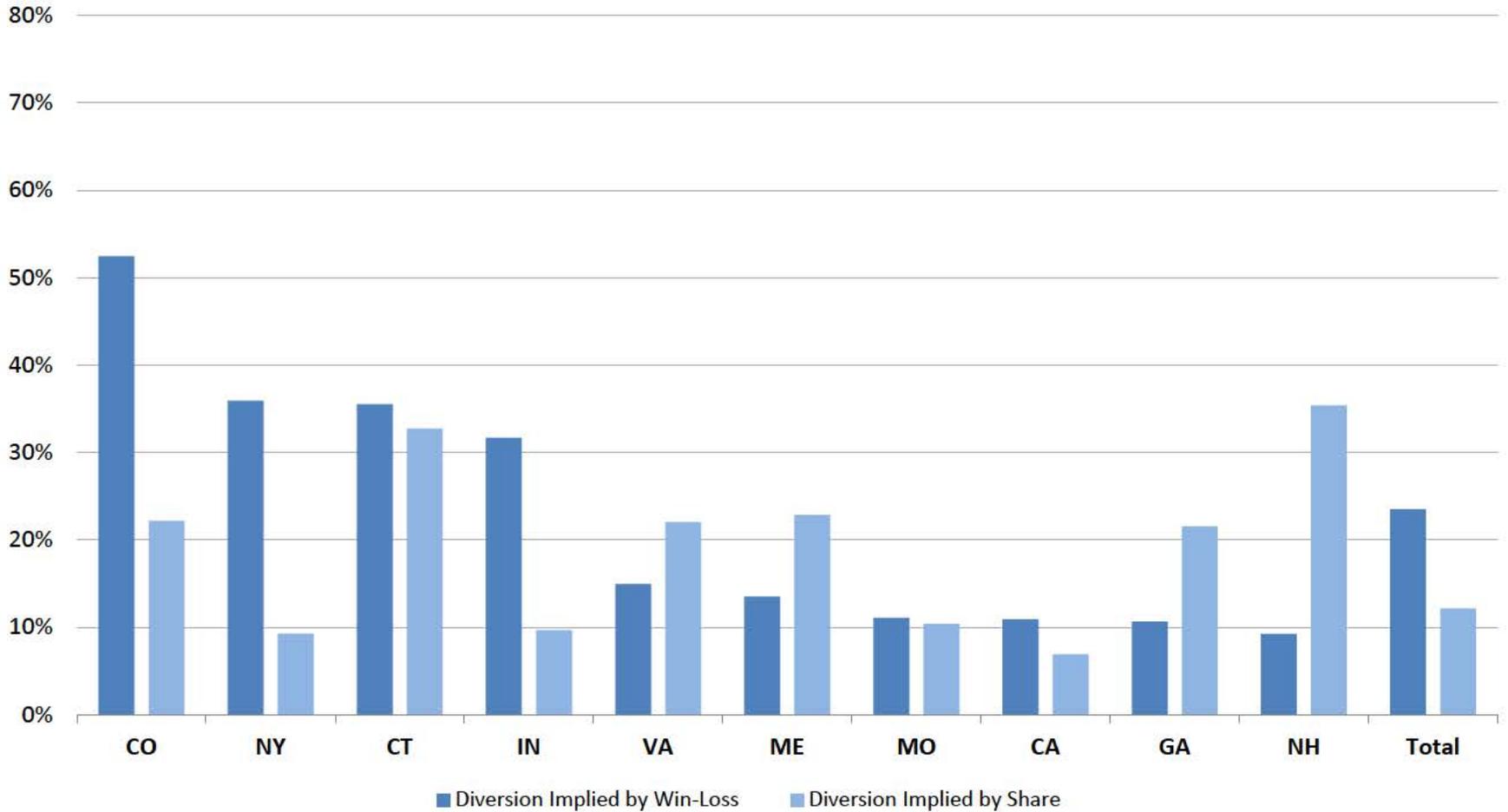


Win/Loss Results



Anthem Losses to Cigna
Anthem Access Qtr-Loss Data
2013-2016

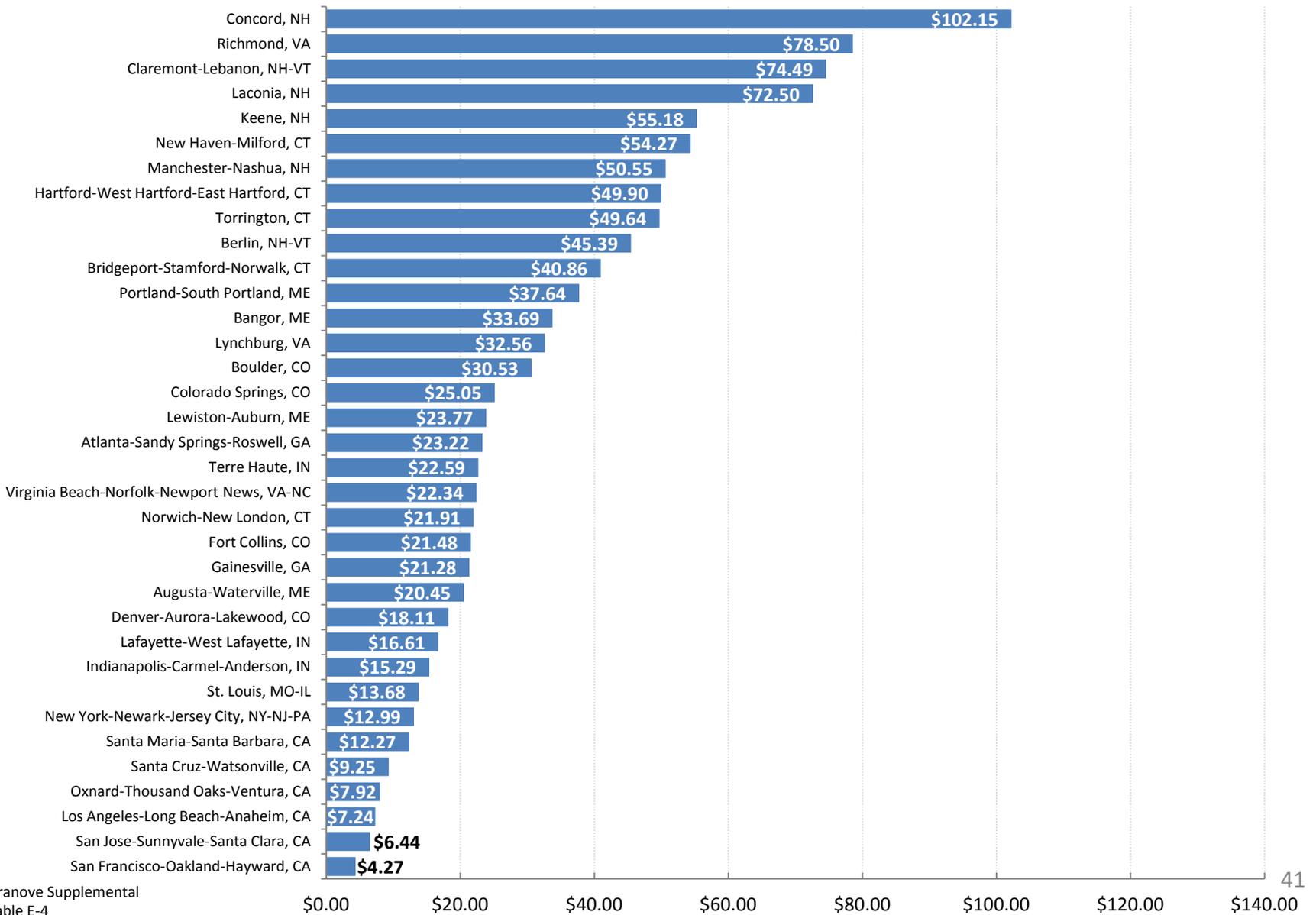
Win/Loss Results



Anthem Wins from Cigna
 Anthem Access Qtr-Win Data
 2013-2016

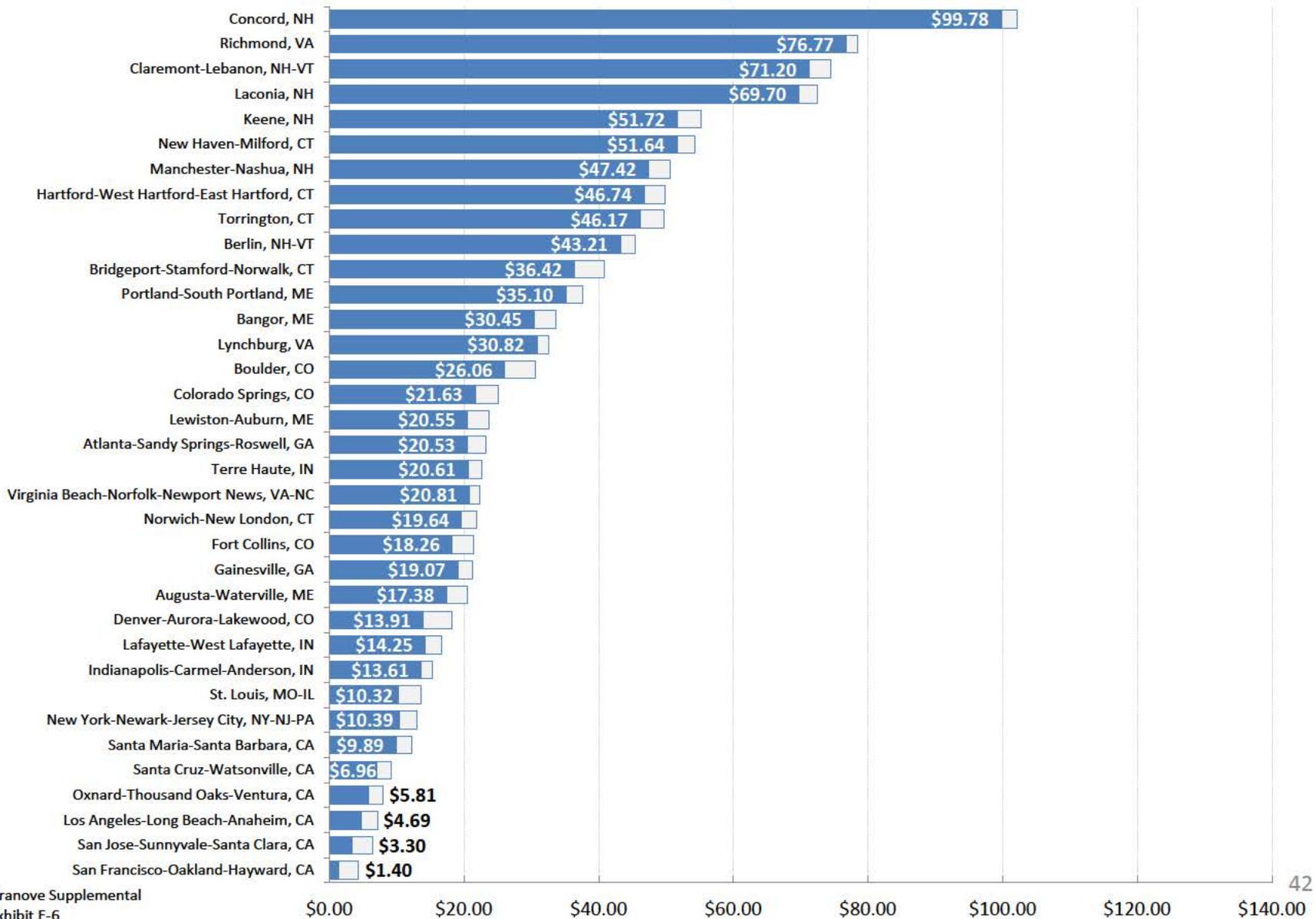
Merger Simulation: ASO+FI

Baseline PMPY Harm

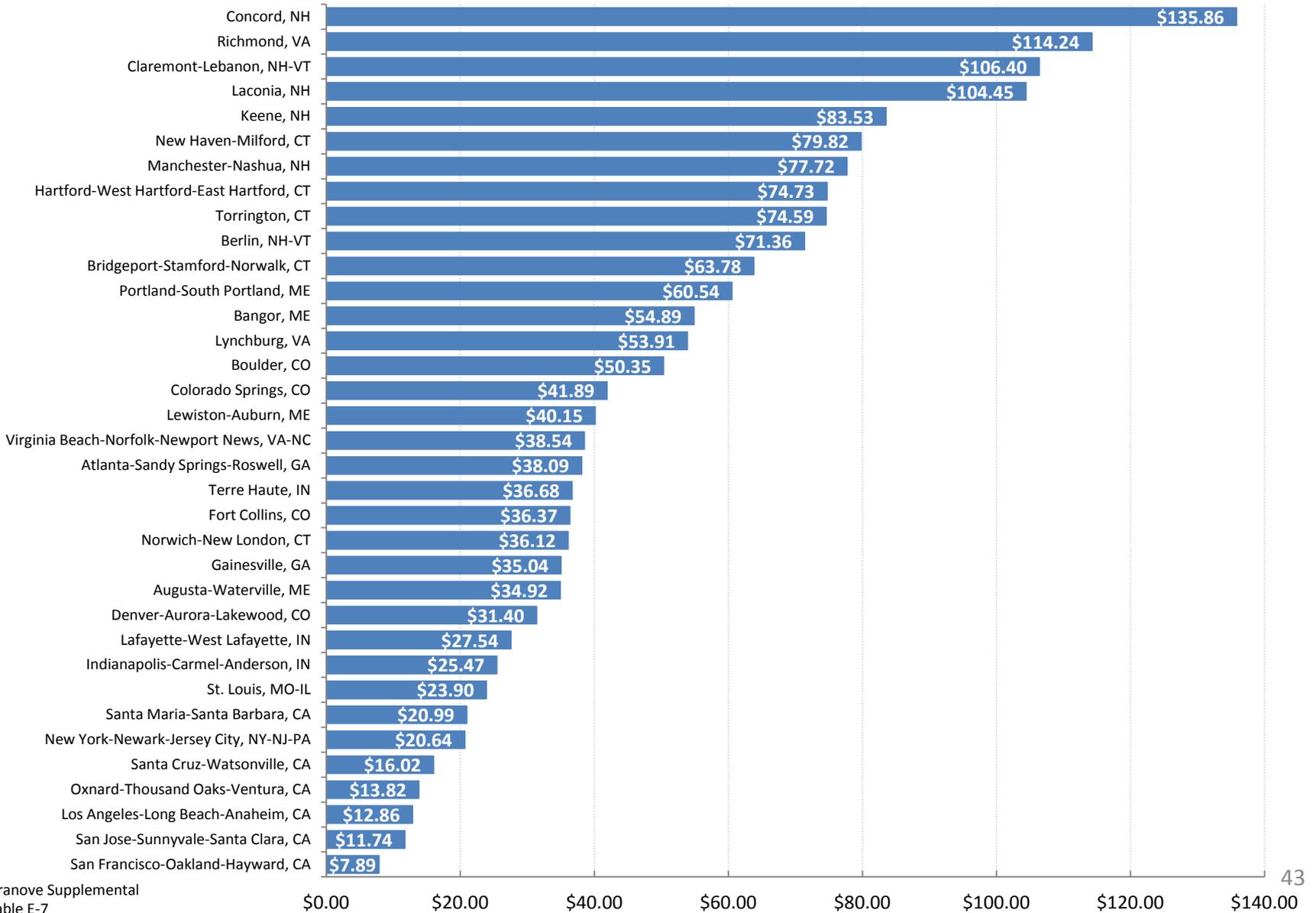


Merger Simulation: ASO+FI

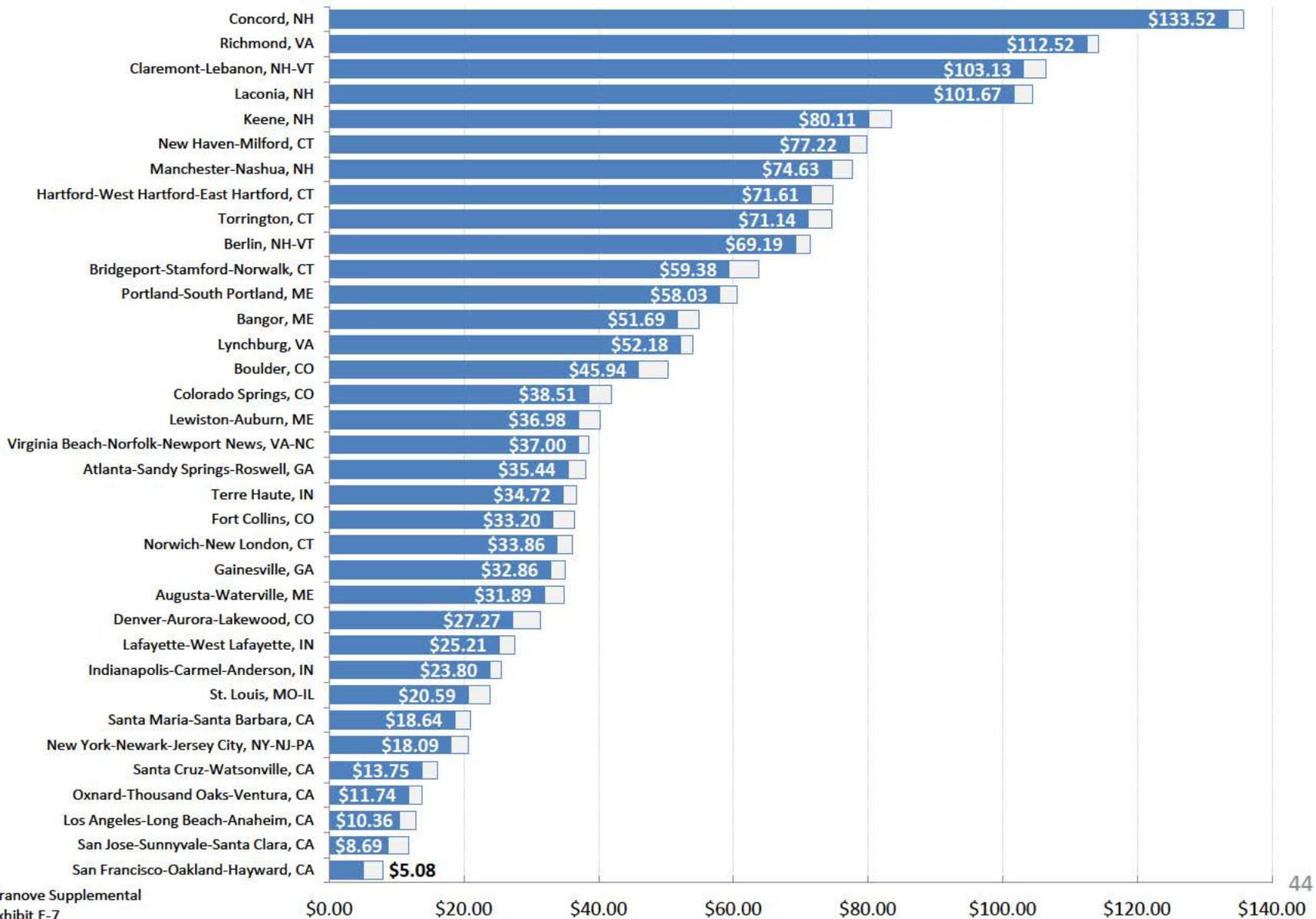
PMPY Harm with Claimed Variable Cost Savings



UPP: ASO+FI, Share-Based Diversion Baseline PMPY Harm

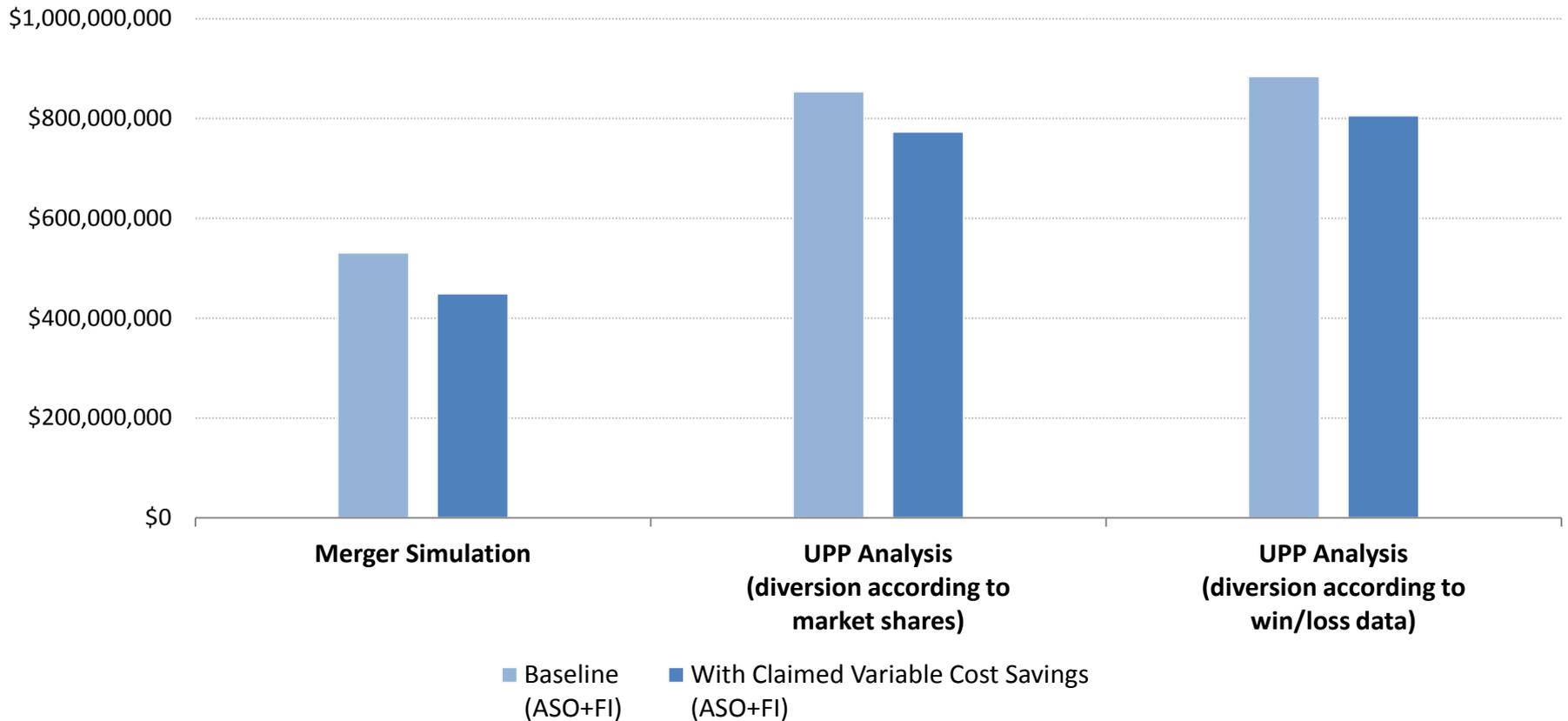


UPP: ASO+FI, Share-Based Diversion PMPY Harm with Claimed Variable Cost Savings



Merger Simulation and UPP Results

Total Static Employer Harm per Year in 35 CBSAs



Entry: Horizontal Merger Guidelines

- Timely
 - Must be rapid enough to make price increase unprofitable or prevent significant customer harm
- Likely
 - Must be profitable in light of assets, capabilities, and capital needed, and risk incurred
- Sufficient
 - Must replicate “scale and strength” of one of the merging firms or, if smaller, not be at significant competitive disadvantage

Entry: Costly and Time-Consuming

- Local provider network with competitive rates
 - Chicken-and-egg problem
- Local reputation, brand strength, broker relationships
- For de novo entry, would also need:
 - Claims system
 - Clinical programs
 - Wellness programs

Entry Occurs More in Individual or Small Group Markets

- Oscar entered individual market through ACA exchanges
 - Has been losing money
 - Narrow networks
- CareConnect
 - Launched by North Shore Long Island Jewish Hospital in 2014
 - Primarily attracted small group and individual customers

Regional Entrants Not Close Competitors

- Regional carriers tend to offer FI plans primarily or exclusively
 - *E.g.*, Tufts Health Freedom, [REDACTED]
[REDACTED]
- Provider-sponsored plans tend to focus on HMOs or other FI plans
 - [REDACTED] [REDACTED]



Evidence of Unsuccessful Entry Into Large Group

- Prof. Willig claims 32 firms have entered across U.S. since 2011
 - List includes firms who have been around for years, like GEHA
 - Of actual new entrants
 - 11 had exited by 2016
 - Only 2 achieved market share greater than 3% by 2016
- Piedmont: achieved only 0.14% share of large group, FI market in Georgia; has now exited
- CareConnect: primarily attracted individual and small group

Evidence of Limited Geographic Expansion

- Harvard Pilgrim
 - Started selling in Connecticut in mid-2014 after applying for license in 2012
 - Had only 24,000 members in Connecticut by late 2015, compared to 750,000 for Anthem and 330,000 for Cigna
- Kaiser
- [REDACTED]

Buy Side: Summary

- The proposed merger is likely to:
 - Decrease provider rates through
 - **Buy-side market power** over solo physicians and small physician groups
 - **Bargaining leverage** over hospitals and large physician groups
 - Decrease quality of care by
 - Reducing providers' current and future investment in health services and facilities
 - Eliminating competition between Anthem and Cigna to enter into collaborative partnerships with providers

Buy-Side Harm: Horizontal Merger Guidelines

- Similar framework to sell-side markets
 - Hypothetical monopsonist test
- The *Guidelines* distinguish anti-competitive effects from pro-competitive effects
 - Anti-competitive: Reduced prices arising from market power
 - Competitive: Reduced prices arising from lower transaction costs or volume discounts
- Short-run reduction in quantity purchased not “the only, or best, indicator” of buyer market power

Product Market: Methodology

- Identify candidate market
- Apply hypothetical monopsonist test
 - Would a hypothetical monopsonist that controls all present and future purchases of the candidate products profitably impose a SSNRP?
 - SSNRP = Small but Significant and Non-transitory Reduction in Price, usually about 5% or 10%

Product Market: Analysis

- Definition: Healthcare services purchased by commercial health insurers is a relevant product market
 - Includes purchases for individuals, small groups, and large groups (including national accounts)
 - All funding types and plan designs

Product Market: Analysis

- Passes hypothetical monopsonist test
- Commercially-insured patients are critical to providers
 - Medicare, Medicare Advantage, and Medicaid:
 - Far less profitable than commercial patients (next slide)
 - Providers do not set prices for Medicare or Medicaid, and providers have only a limited range of negotiable prices for Medicare Advantage
 - Zero-sum game
 - Out-of-pocket purchasers:
 - Prices are very high
 - Consumers are generally unable to pay

Product Market: Analysis

Table E-2: Hospital Payment/Cost Ratios and Imputed Margins, 2010-2014

Year	Payment-to-Cost Ratio			Imputed Margins		
	Commercial	Medicare	Medicaid	Commercial	Medicare	Medicaid
2010	1.34	0.92	0.93	25.1%	-8.2%	-7.8%
2011	1.35	0.91	0.95	25.7%	-9.4%	-5.6%
2012	1.49	0.86	0.89	32.8%	-16.4%	-12.5%
2013	1.44	0.88	0.90	30.4%	-13.8%	-11.4%
2014	1.44	0.89	0.90	30.4%		-11.1%

Note:

[1] Medicare Advantage figures are included in Medicare figures.

Sources:

[1] AHA Trendwatch Chartbook 2016, Table 4.4.

[2] AHA Trendwatch Chartbook 2016, Chart 1.17.

Product Market: Analysis

Table E-3: Hospital Imputed Margins Adjusted for Share of Variable Costs

Variable Costs as a Share of Total Costs (θ)	Hospital Imputed Margins		
	Commercial	Medicare	Medicaid
0.1	93.0%	88.7%	88.9%
0.2	86.1%	77.4%	77.8%
0.3	79.1%	66.1%	66.7%
0.4	72.2%	54.8%	55.6%
0.5	65.2%	43.5%	44.4%
0.6	58.2%	32.2%	33.3%
0.7	51.3%	20.9%	22.2%
0.8	44.3%	9.6%	11.1%
0.9	37.4%	-1.7%	0.0%
1.0	30.4%	-13.0%	-11.1%

Source:

[1] AHA Trendwatch Chartbook 2016, Table 4.4.

Product Market: Analysis

Table E-4: Threshold Expansion in Medicare/Medicaid Necessary to Reject 5% SSNRP, 2014

Variable Cost as Share of Total Costs (θ)	Medicare	Medicaid
0.1	161.2%	158.1%
0.2	170.1%	166.5%
0.3	182.1%	177.5%
0.4	199.0%	193.0%
0.5	224.7%	216.3%
0.6	268.5%	255.1%
0.7	359.5%	332.6%
0.8	664.9%	565.2%
0.9	N/A	N/A
1.0	N/A	N/A

Note:

[1] N/A values indicate that there is no threshold expansion possible to profitably reject a 5 percent SSNRP.

Source:

[1] AHA Trendwatch Chartbook 2016, Table 4.4.

Geographic Market: Analysis

- Each of the 35 CBSAs passes the hypothetical monopsonist test
- Hospitals and physicians would not forgo commercial patients
- Hospitals and physicians would not move to another CBSA in response to a SSNRP in commercial reimbursement rates
 - Hospitals: substantial fixed costs; disruption to operations
 - Physicians: loss of patient base; disruption to personal life; relocation-related costs

Market Shares: Methodology

- Enrollment within each CBSA
 - Individuals: want healthcare where they live and work
 - Providers: draw majority of patients from CBSA in which facility is located
 - HCCI study (2015) shows average of 90% of inpatient admissions for patients residing in a given CBSA occurred at hospitals located in the CBSA
- Treat Blues as single competitor

Census Approach Exceeded the Build-Up for 25 of the 35 CBSAs

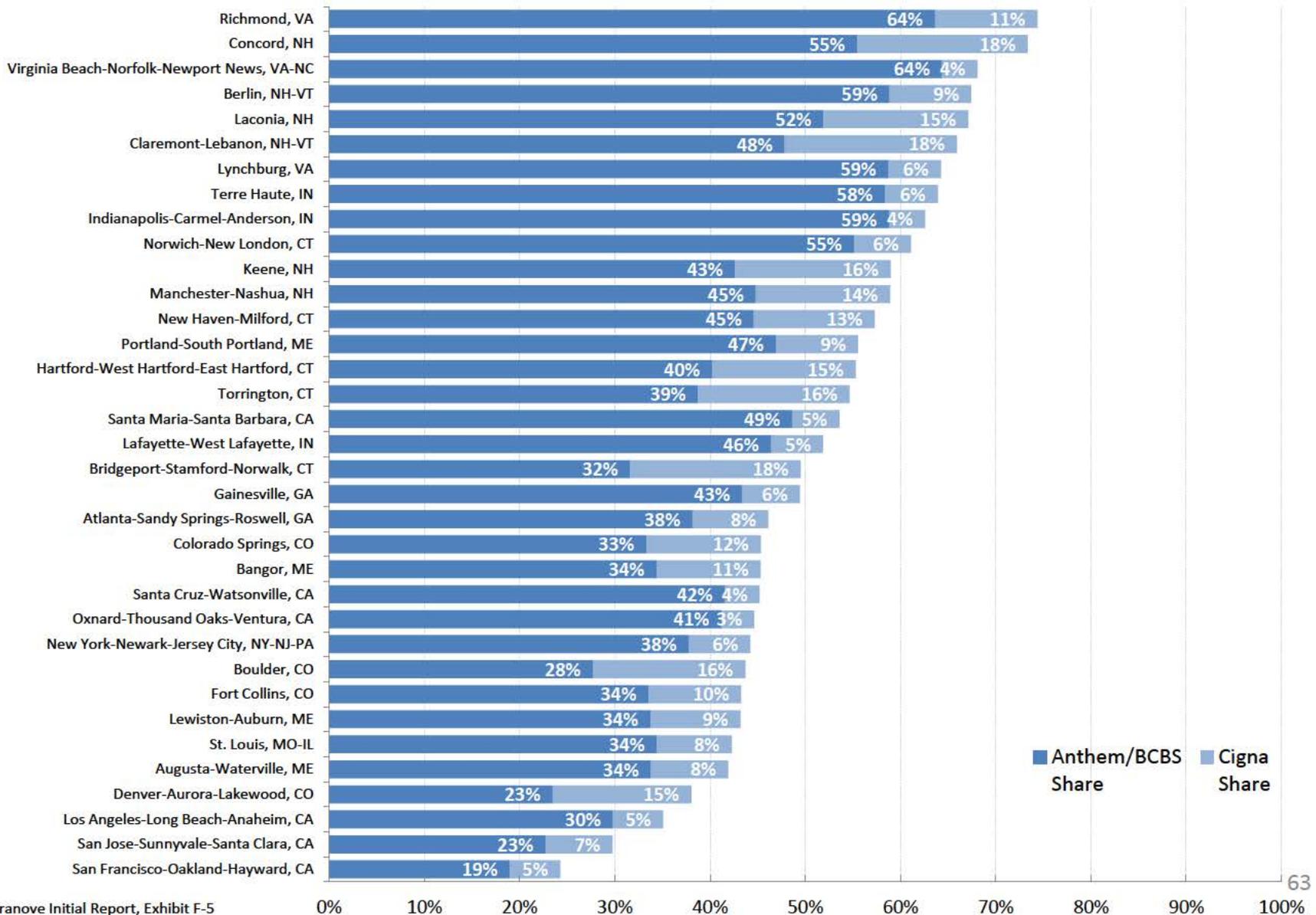
Census approach larger

1. Atlanta-Sandy Springs-Roswell, GA
2. Augusta-Waterville, ME
3. Bangor, ME
4. Berlin, NH-VT
5. Bridgeport-Stamford-Norwalk, CT
6. Boulder, CO
7. Claremont-Lebanon, NH-VT
8. Denver-Aurora-Lakewood, CO
9. Fort Collins, CO
10. Gainesville, GA
11. Hartford-West Hartford-East Hartford, CT
12. Indianapolis-Carmel-Anderson, IN
13. Keene, NH
14. Laconia, NH
15. Lafayette-West Lafayette, IN
16. Lewiston-Auburn, ME
17. Lynchburg, VA
18. Manchester-Nashua, NH
19. New Haven-Milford, CT
20. New York-Newark-Jersey City, NY-NJ-PA
21. Portland-South Portland, ME
22. Santa Maria-Santa Barbara, CA
23. St. Louis, MO-IL
24. Terre Haute, IN
25. Torrington, CT

Build-Up approach larger

1. Colorado Springs, CO
2. Concord, NH
3. Los Angeles-Long Beach-Anaheim, CA
4. Norwich-New London, CT
5. Oxnard-Thousand Oaks-Ventura, CA
6. Richmond, VA
7. San Francisco-Oakland-Hayward, CA
8. San Jose-Sunnyvale-Santa Clara, CA
9. Santa Cruz-Watsonville, CA
10. Virginia Beach-Norfolk-Newport News, VA-NC

All Commercial Shares in 35 CBSAs Blues Combined



Source: Dranove Initial Report, Exhibit F-5

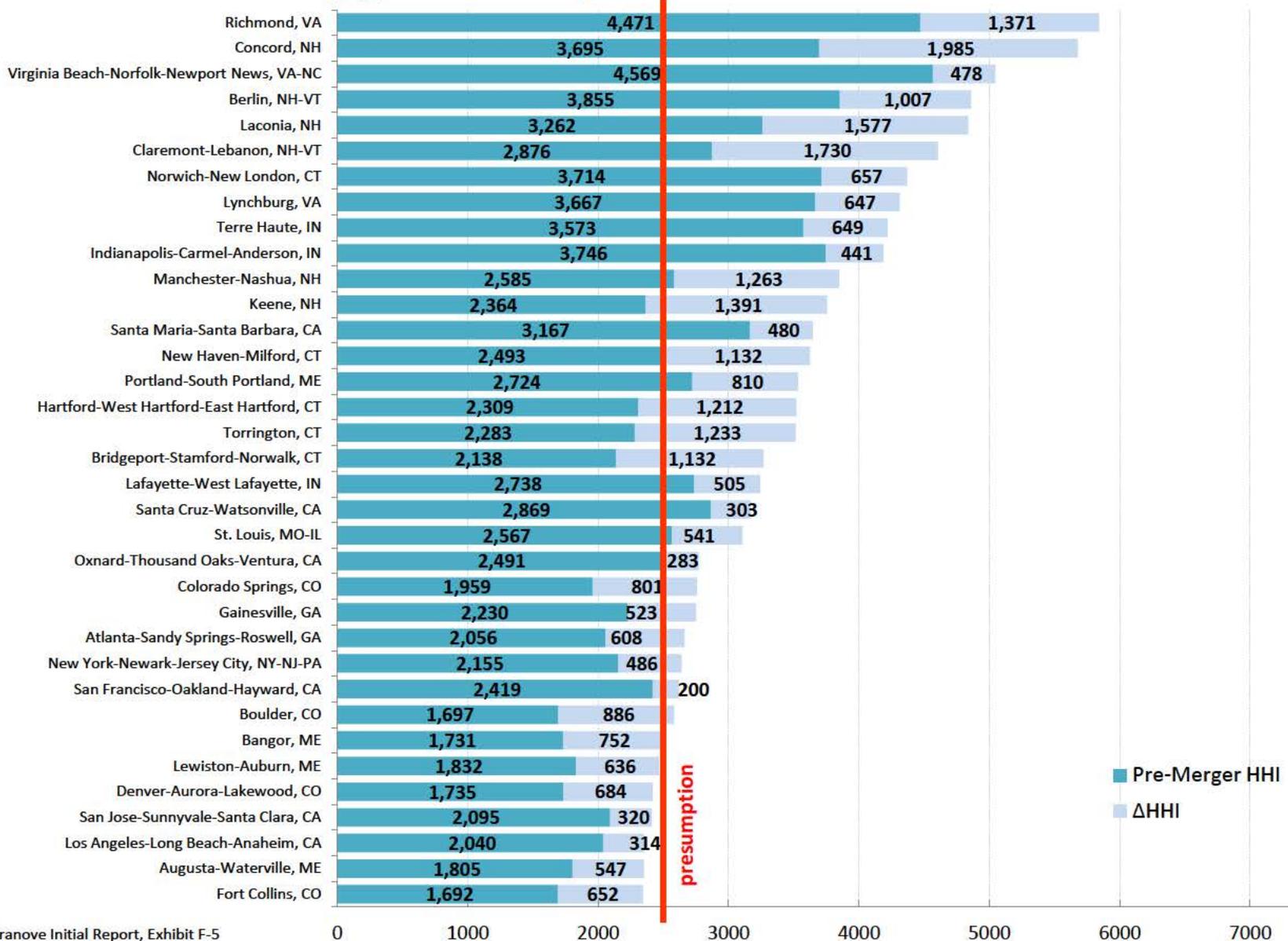
Competitive Effects: Overview of Rate Setting

- Take-it-or-leave-it offers to solo physicians and small physician groups
 - Participation in network valuable to both insurer and doctor
 - No negotiation: insurer makes profit-maximizing decision
 - Sets rates such that marginal benefit to insurer of small, uniform rate increase = consequent increase in insurer's medical costs

Competitive Effects: Overview of Rate Setting

- Active negotiation with large provider groups and hospitals
 - Reflect hospital's importance to insurer and insurer's importance to hospital
 - Patient volume = leverage
 - Anthem executive: "the more patients [that] doctors and hospitals see from a carrier, the more leverage that carrier has to negotiate the best arrangements in the market"
 - Two-stage competition: competition for enrollees downstream enhances competition to purchase services upstream

Change in Concentration: All Commercial 35 CBSAs, Blues Combined



Competitive Effects: Solo Physicians and Small Physician Groups

- Merger will enhance Anthem's market power over small practices
 - Increases importance of each merging party to these providers
- Merged firm can make a single, take-it-or-leave it offer
- Result = ability to pay small providers less to serve Anthem members, Cigna members, or both

Competitive Effects: Large Physician Groups and Hospitals

- Merger will increase merging parties' bargaining leverage over larger providers
 - Increases importance of the merging parties to individual providers
 - Provider testimony about employers switching to Cigna
 - Decreases importance of individual providers to the merging parties
- More leverage = ability to lower prices
- NOT a volume discount or purchasing economy

Competitive Effects: Lower Quality of Care

- Empirical literature: rate reductions cause lower quality care
 - Inducing provider exit
 - Reducing access to care
 - Discouraging technology adoption
 - Reducing resource utilization

Competitive Effects: Lower Quality of Care

- Hospital testimony

- [REDACTED]

- Revenue shortfalls impact facility renovations and delay investments in expanding services, improving facilities

Competitive Effects: Lower Quality of Care

- Physician testimony

- [REDACTED]

- “run[] faster trying to make it up on volume” and “cutting corners,” which has “direct bearing on patient care outcomes”

- Insurer testimony

- [REDACTED]

Dynamic Effects: Large Group and Upstream Markets

- Incentives to innovate will decrease throughout Anthem territories, including the 35 local markets
 - Cigna generally has discount disadvantage
- Impacts on provider collaborations will be felt locally
 - Incentives to innovate through value-based programs can vary by location
 - Cigna's provider collaborations are tailored to local needs

Dynamic Effects: Large Group and Upstream Markets

- Anthem tends to innovate more in markets where it has lower share or discounts
 - LA: Anthem share and pre-merger HHI among lowest in 35 CBSAs; developed Vivity
 - Colorado CBSAs: Anthem shares and pre-merger HHIs among lowest in 35 CBSAs; developing Vivity-like collaboration

Dynamic Effects: Large Group and Upstream Markets

- Cigna pursuing disruptive “population health” collaborations in markets with low share
 - LA-Long Beach-Anaheim (4% share)
 - St. Joe’s DSA in Orange County
 - New DSA with [REDACTED] targeting Anthem in LA
 - Indianapolis (4% share)
 - [REDACTED]

Dynamic Effects: Large Group and Upstream Markets

- Provider testimony in Phase 2
 - Anthem takes top-down approach, fails to provide timely and actionable data
 - Cigna is flexible and tailors its programs to the providers' needs; providers timely and actionable data
- Shows how varying incentives to innovate impact real-world conduct

Efficiencies

- Efficiencies defense fails for same reasons as Phase 1
- For some CBSAs, much greater PMPM efficiency needed to offset static harm downstream
- For upstream markets, no effort by defendants to quantify any savings that would benefit providers