U.S. and Plaintiff States v. Aetna Inc. and Humana Inc.

Aviv Nevo, Ph.D.

George A. Weiss and Lydia Bravo Weiss University Professor

Wharton School of Business and Department of Economics

University of Pennsylvania

Assignment and Overall Conclusions

- **Assignment:** Economic analysis of the likely effects on competition from the proposed merger of Aetna and Humana

- **Opinions:**

1. Substantial lessening of competition in markets for Medicare Advantage plans

2. Substantial lessening of competition in markets for Individual Commercial plans

3. Substantial harm to consumers – higher prices and lower benefits

Medicare Advantage

Economic analysis of the likely effects of a merger

- **Key question:** will the proposed merger lessen competition?

- **Multiple step analysis**

  1. Define relevant product and geographic antitrust markets
  2. Compute competitive effects: structural presumption and empirical analysis
  3. Consider potential mitigating factors: divestiture, entry, and efficiencies

Summary of opinions on Medicare Advantage

1. The relevant antitrust market is Medicare Advantage (MA) plans sold to individuals within each Complaint county

2. The proposed merger will lessen competition in each Complaint county and harm consumers

3. The potential mitigating factors put forward are insufficient to restore the lost competition

We define markets to focus the competitive analysis

- Market definition is part of the standard analytical framework
  - Horizontal Merger Guidelines § 4

- Two main purposes

1. Identify sets of products where competitive concerns arise

2. Measure market shares and concentration (which can illuminate competitive effects)

Guiding principles of market definition

- Consumer substitution limits firms' ability to raise prices
  - Therefore market definition focuses on "customers' ability and willingness to substitute away from one product to another in response to a price increase" (Guidelines § 4)
- Narrowly defined markets more accurately reflect competition
  - The relevant market need not include all substitutes, and "As a result, properly defined antitrust markets **often exclude some substitutes** to which some customers might turn in the face of a price increase even if such substitutes provide alternatives for those customers." (Guidelines § 4)

The hypothetical monopolist test

- How do we know the market is not too narrow?

  - Guidelines § 4: "a group of products is **too narrow** to constitute a relevant market **if competition from products outside that group is so ample that even the complete elimination of competition within the group would not significantly harm** either direct customers or downstream consumers."

- Apply the hypothetical monopolist test to ensure candidate markets are not overly narrow and to test reasonable interchangeability

The hypothetical monopolist test defined

- Guidelines § 4.1.1 explain that "the test requires that **a hypothetical profit-maximizing firm**, not subject to price regulation, that was the only present and future seller of those products ('hypothetical monopolist') **likely would impose at least a small but significant and non-transitory increase in price ('SSNIP') on at least one product in the market**, including at least one product sold by one of the merging firms."

Competition should be evaluated at the county level

- **Counties constitute relevant geographic markets**
  - Mr. Orszag agrees on definition
  - Healthcare is local
  - CMS regulations
  - Documents and testimony
  - Insurers offer different plans in different counties
  - Hypothetical monopolist test

Nevo Report, ¶¶ 86–94; Orszag Report, ¶ 112

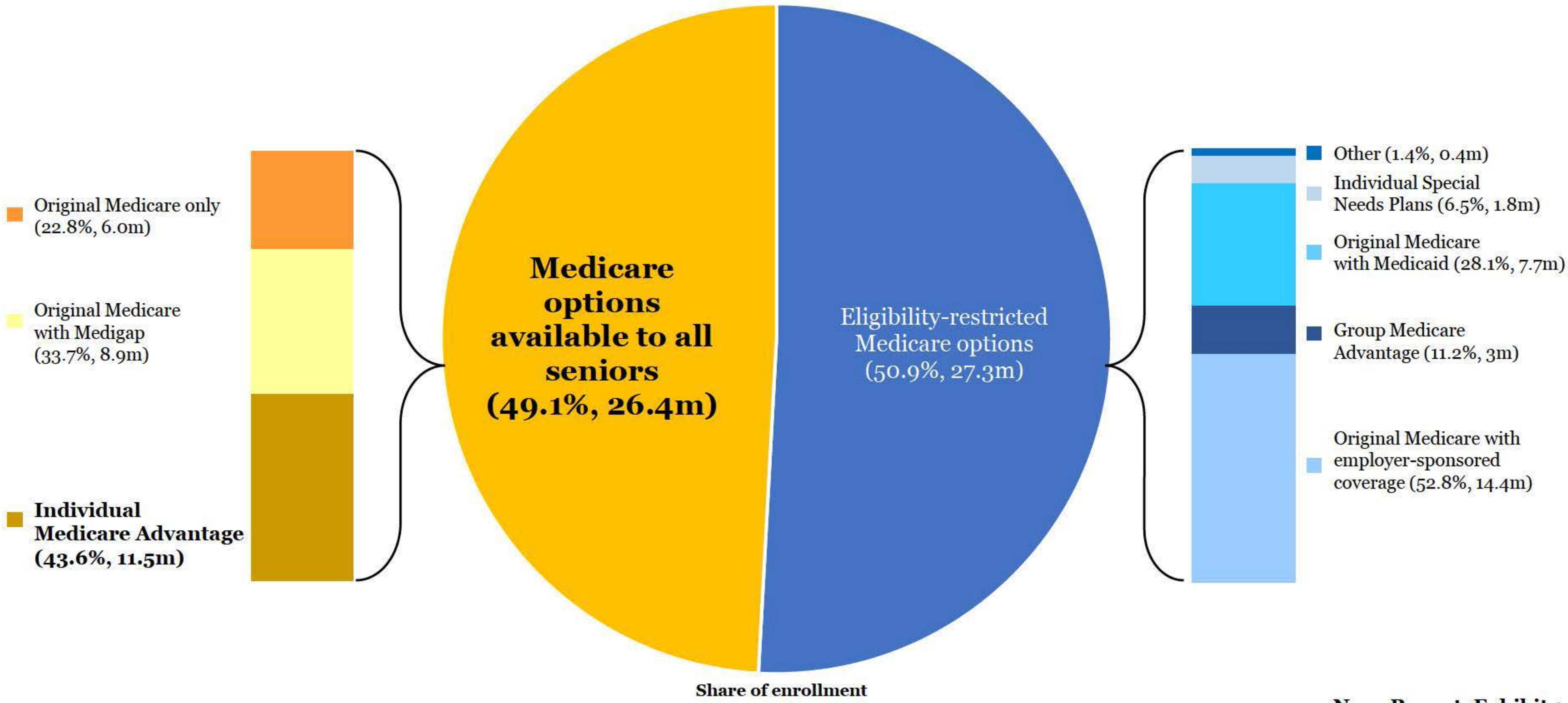
Multiple sources of evidence demonstrate that MA plans constitute a relevant antitrust product market

1. Market realities
2. Documentary evidence
3. Actual customer substitution
4. Academic literature
5. Empirical analysis of plan choice
6. Hypothetical monopolist tests

Multiple sources of evidence demonstrate that MA plans constitute a relevant antitrust product market

1. **Market realities:** MA plans are distinct from other Medicare options
2. Documentary evidence
3. Actual customer substitution
4. Academic literature
5. Empirical analysis of plan choice
6. Hypothetical monopolist tests

44 percent of relevant seniors chose MA plans in 2015



Nevo Report, Exhibit 1

MA plans are distinct from other Medicare options

Basic benefits

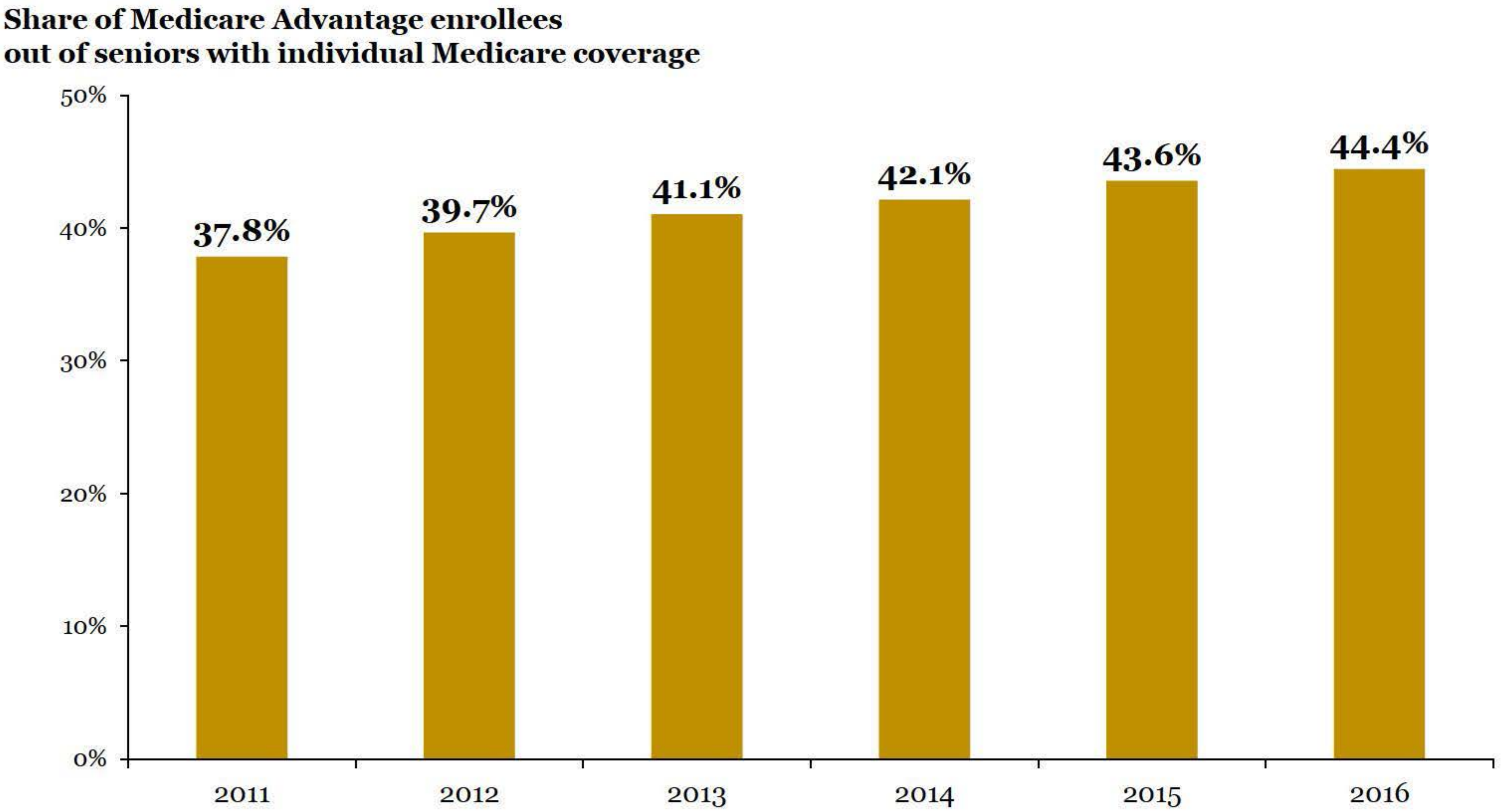
	Medicare Advantage	Original Medicare (with or without supplemental insurance) *Parts A & B Only*	*Parts A & B with Medigap*	*Parts A & B with Part D*
Medical benefits of Parts A & B	✓	✓	✓	✓
Visit any medical provider	✗	✓	✓	✓
Out-of-pocket cap on medical costs	✓	✗	✓	✗
Care management & coordination	✓	✗	✗	✗
Star ratings	✓	✗	✗	✓
Single customer-service hotline	✓	✓	✗	✗
Private insurer branding	✓	✗	✓	✓

Additional benefits offered by most plans

	Medicare Advantage	Original Medicare (with or without supplemental insurance) *Parts A & B Only*	*Parts A & B with Medigap*	*Parts A & B with Part D*
Outpatient prescription drug coverage	✓	✗	✗	✓
Dental coverage	✓	✗	✗	✗
Vision coverage	✓	✗	✗	✗
Hearing coverage	✓	✗	✗	✗
Wellness benefits	✓	✗	✗	✗
Other benefits	✓	✗	✗	✗

Nevo Report, ¶¶ 103–119, Exhibit 7

More seniors are choosing MA over time

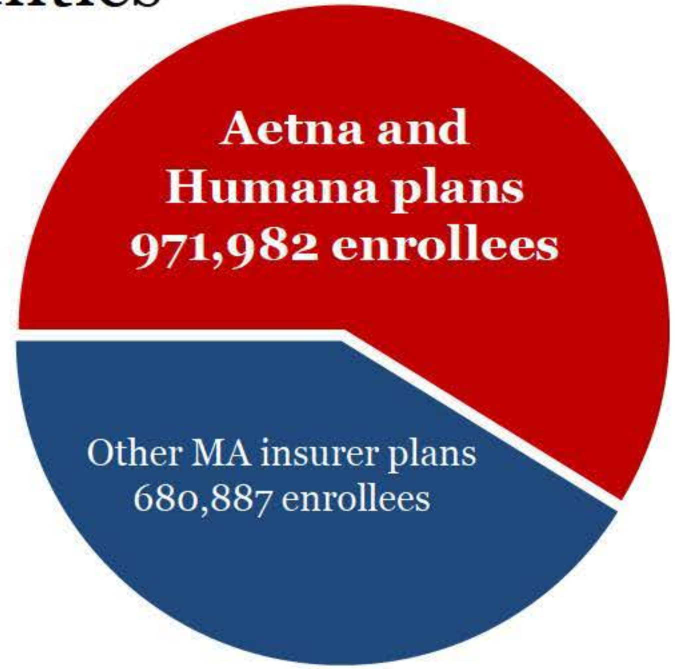


Nevo Report, Exhibit 2

Many seniors would be affected by the proposed merger

- **Humana and Aetna are #1 and #4** in individual MA nationwide, and Aetna is growing aggressively

- Aetna and Humana have **59 percent** of the 1.7 million MA enrollees in the Complaint counties

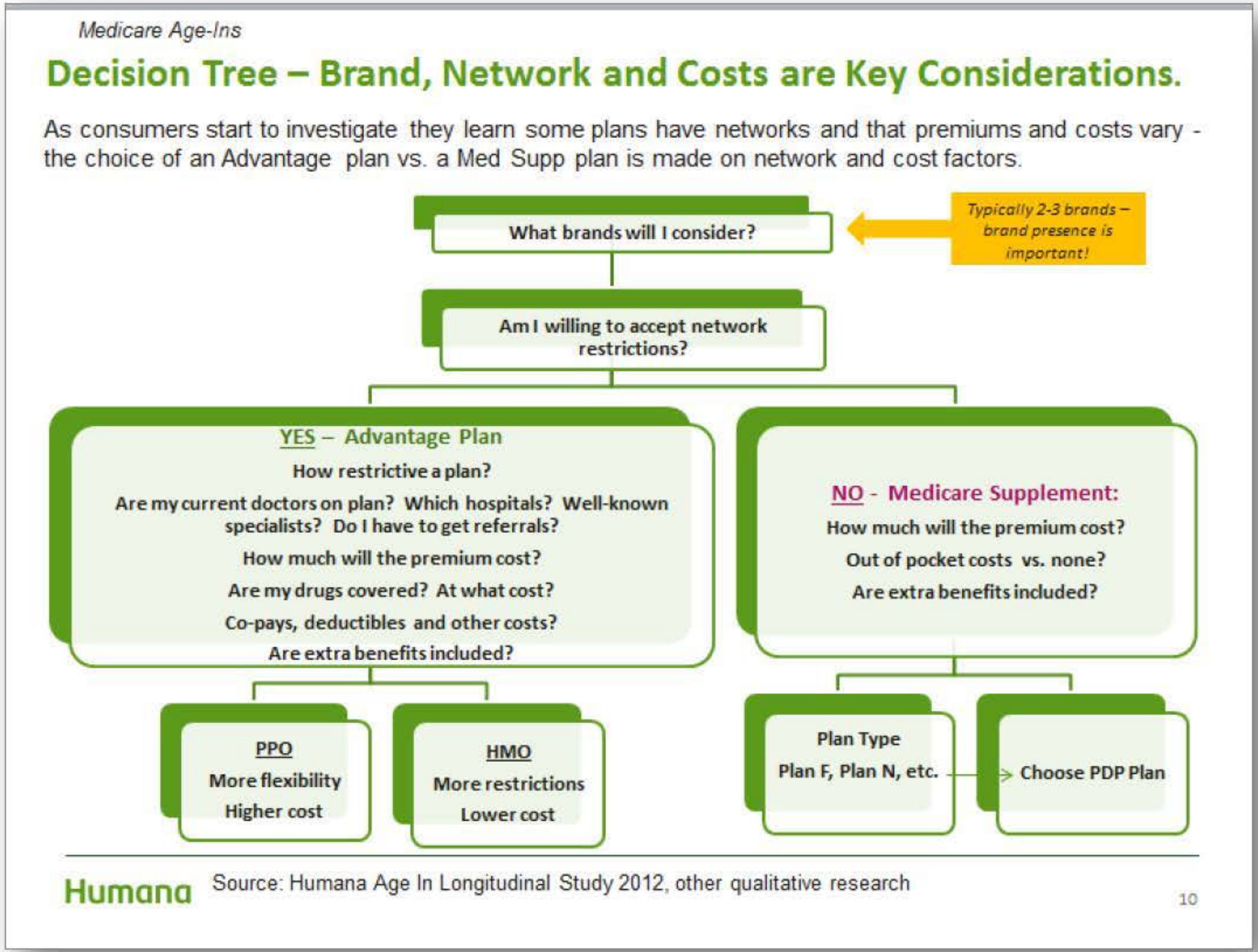


Nevo Report, Exhibit 3, ¶ 214

Multiple sources of evidence demonstrate that MA plans constitute a relevant antitrust product market

1. Market realities
2. **Documentary evidence:**
    1. MA appeals to different seniors
    2. Defendants price MA separately from Medigap
3. Actual customer substitution
4. Academic literature
5. Empirical analysis of plan choice
6. Hypothetical monopolist tests

Seniors first choose MA, then a plan



Nevo Report, ¶¶ 120–126; and DX0490

MA appeals to different seniors

- **Seniors are more likely to choose MA** if:
  - Lower income
  - Urban residence
  - Better health

- Diversity (“heterogeneity”) in preferences

Nevo Report, ¶¶ 120–126, 129; and DX0490

Defendants price MA plans separately from Medigap

- A firm prices its products jointly when these products compete closely with one another

- Documents and testimony show that the Defendants price MA plans separately from Medigap

Nevo Report, ¶¶ 127–130

Multiple sources of evidence demonstrate that MA plans constitute a relevant antitrust product market

1. Market realities
2. Documentary evidence
3. **Actual customer substitution:**
   1. Switching mostly within MA
   2. MA appeals to different seniors
4. Academic literature
5. Empirical analysis of plan choice
6. Hypothetical monopolist tests

Switching data summarize actual substitution patterns

- How many seniors leaving one MA plan substitute to another MA plan?

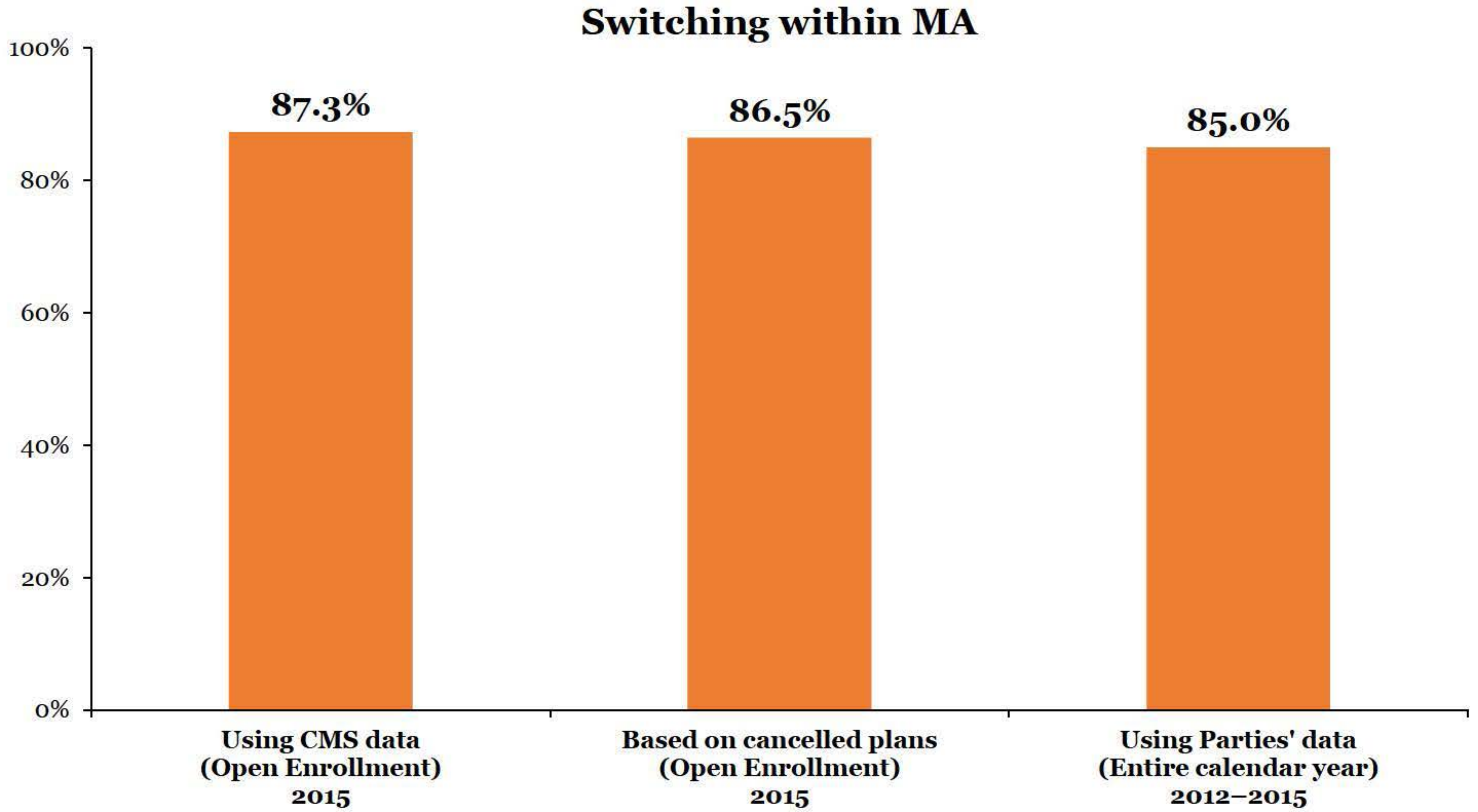
- Switching data serve three purposes:

    1. Data on actual substitution patterns directly inform market definition

    2. Evaluate diversity in senior preferences seen in documentary evidence

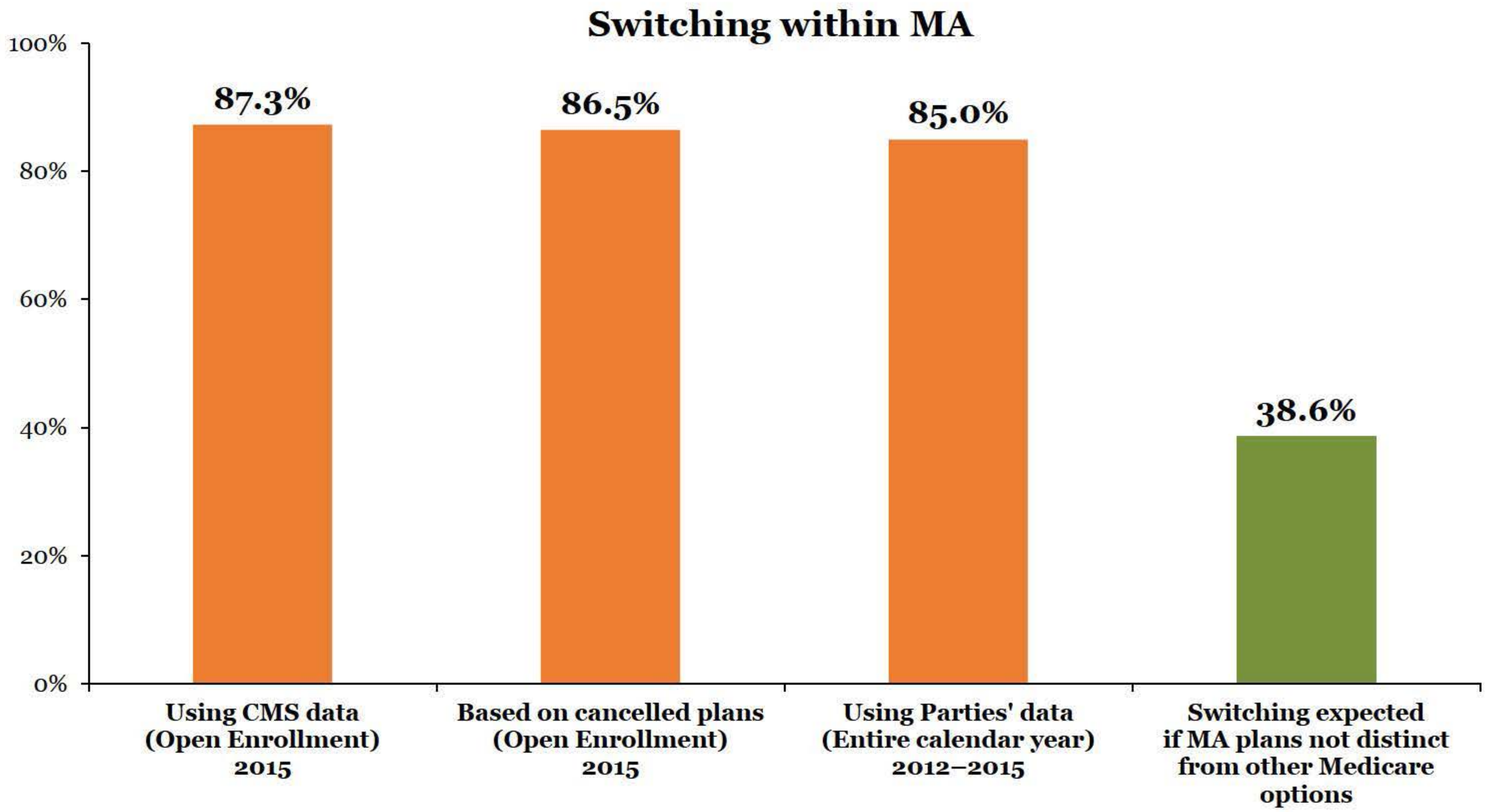
    3. Reality check on my empirical analysis

Seniors who switch are likely to stay within MA



Nevo Reply Report, Exhibit 7

MA appeals to a distinct set of seniors



Nevo Report, Exhibit 11; and Nevo Reply Report, Exhibit 7

Evidence shows observed substitution is related to price

- Are seniors switching due to price or other reasons?
- Most observed substitution is due to price
    1. Party documents
    2. Survey data
    3. Kaiser Family Foundation study

Nevo Report ¶ 142; and Nevo Reply Report ¶ 59

Multiple sources of evidence demonstrate that MA plans constitute a relevant antitrust product market

1. Market realities
2. Documentary evidence
3. Actual customer substitution
4. **Academic literature:** Many seniors have a distinct preference for MA plans as a group
5. Empirical analysis of plan choice
6. Hypothetical monopolist tests

Academic literature has studied senior choice

- Several academic papers study how seniors choose MA plans

- Reviewing the academic literature serves two purposes:

  1. Guidance on how to analyze consumer choice of MA plans

  2. Prior estimates on customer substitution

Nevo Report, ¶¶ 144–151

The academic literature uses the nested logit model

- The academic literature uses the nested logit model to study choice of MA plans
  - MA plans are a nest
  - All other coverage options are the “outside option”

- The nested logit model
  - Used when some customers may have a **distinct preference for a group of choices** (a “nest”) over other choices

- The model allows us to analyze how customers substitute in response to price changes

Nevo Report, ¶¶ 144–151

The nesting parameter and preferences of seniors

- Nesting parameter measures preference for MA plans
  - Zero: no distinct preference for MA plans
  - Positive: many seniors have a distinct preference for MA plans

Nevo Report, ¶¶ 144–151

Academic literature finds distinct preference for MA plans

- All papers find a positive nesting parameter
- Implies high switching within MA in response to price changes

Study	Years studied	Authors' preferred nesting parameter estimate
Guglielmo	2008–2011	0.41
Curto et al.	2006–2010	0.32
Dunn	2004–2007	0.66
Hall	1999–2002	0.51
Dafny and Dranove	1994–2002	0.84
Town and Liu	1993–2000	0.58
Atherly et al.	1998	0.55–0.59

Nevo Report, Exhibit 9; Nevo Reply Report, FN 49

Multiple sources of evidence demonstrate that MA plans constitute a relevant antitrust product market

1. Market realities
2. Documentary evidence
3. Actual customer substitution
4. Academic literature
5. **Empirical analysis of plan choice:** All models in this matter confirm many seniors have distinct preference for MA
6. Hypothetical monopolist tests

Goals for empirical analysis of plan choice

- The empirical analysis of plan choice serves two purposes:

1. Estimate consumer choice using most recent data and compare to results in academic literature

2. Provide inputs for:
    1. Hypothetical monopolist tests
    2. Competitive effects analyses

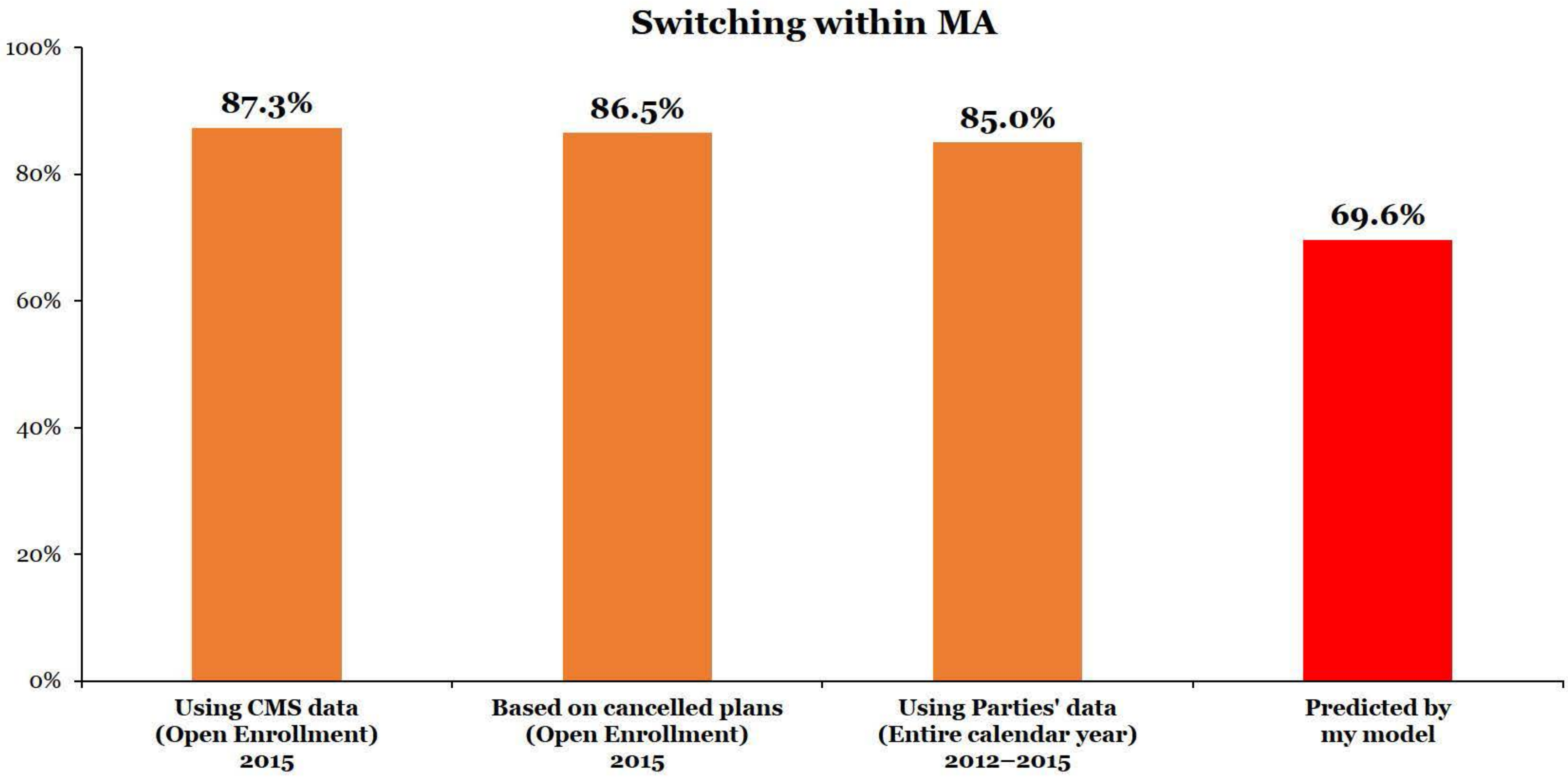
All models in this matter confirm distinct preference for MA

- All models estimated in this matter – mine and Mr. Orszag's – agree that **many seniors have a distinct preference for MA plans as a group**

Empirical analysis of plan choice

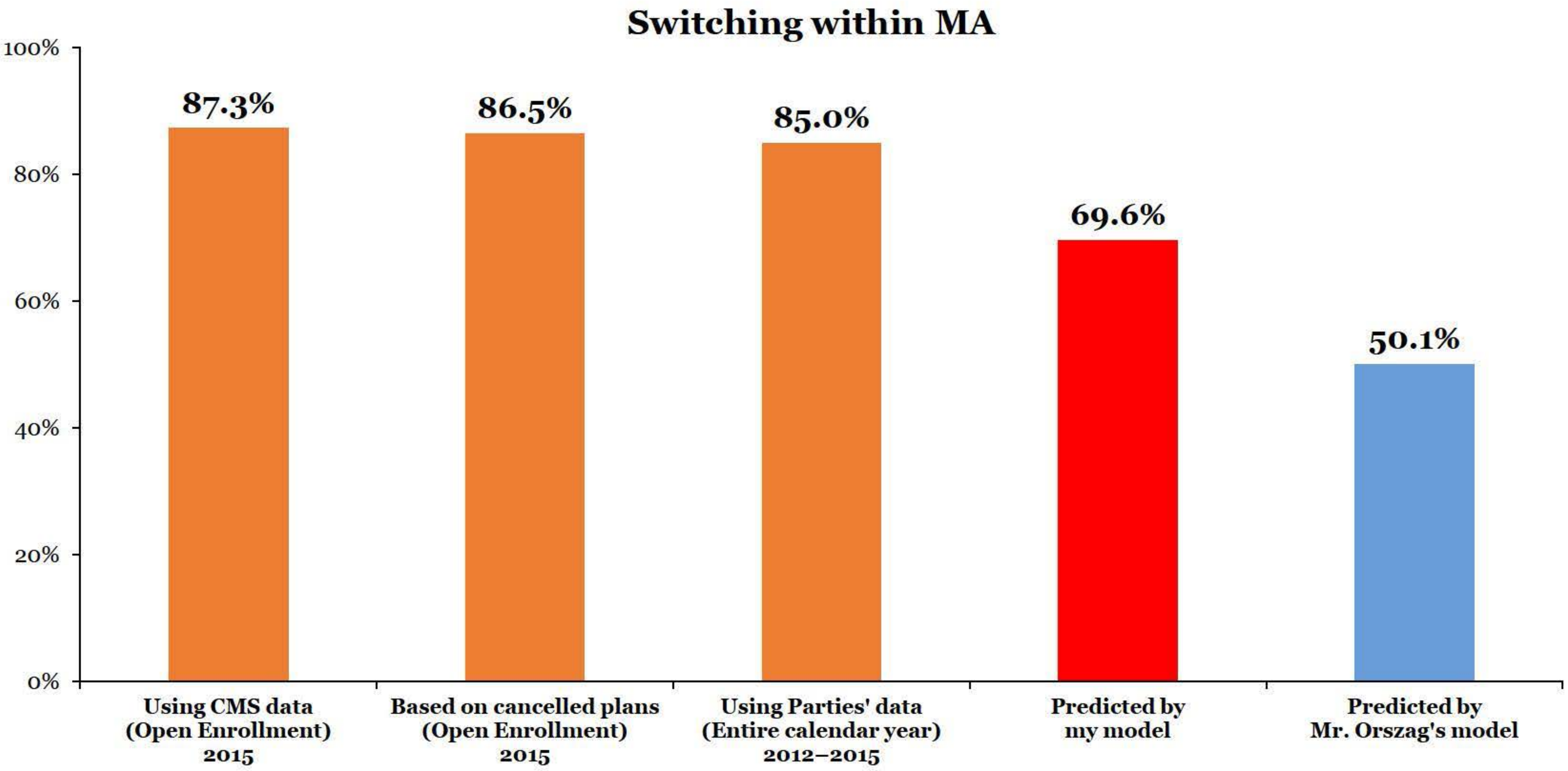
- Analyze using nested logit model, with MA as a group (“nest”)
  - Consistent with the market realities and documentary evidence
  - Follow the academic literature
- Choices depend on the price paid, benefits, and plan attributes
- Estimate using standard methods and CMS data
- Estimates consistent with the results in the academic literature

My estimates reflect actual customer substitution



Nevo Reply Report, Exhibit 7, FN 61

My estimates better reflect actual substitution than Mr. Orszag's



Nevo Reply Report, Exhibit 7, FN 61

All estimates in this matter support my conclusions

- **All models qualitatively agree that many seniors have a distinct preference for MA plans**
- Models differ in data, price, controls, or instrumental variables
- Any differences between the models are due to technical details that do not impact the relevant conclusions

Multiple sources of evidence demonstrate that MA plans constitute a relevant antitrust product market

1. Market realities
2. Documentary evidence
3. Actual customer substitution
4. Academic literature
5. Empirical analysis of plan choice
6. **Hypothetical monopolist tests:** MA plans constitute a relevant antitrust product market

The hypothetical monopolist test defined

- Guidelines § 4.1.1 explain that "the test requires that **a hypothetical profit-maximizing firm**, not subject to price regulation, that was the only present and future seller of those products ('hypothetical monopolist') **likely would impose at least a small but significant and non-transitory increase in price ('SSNIP') on at least one product in the market**, including at least one product sold by one of the merging firms."

- "The Agencies most often use a **SSNIP of five percent of the price paid by customers** for the products or services to which the merging firms contribute value." (Guidelines § 4.1.2)

Higher prices involve a trade-off

- If the hypothetical monopolist increases price:
  - Lose some sales and associated profits…
  - But, higher profits on remaining sales
- The hypothetical monopolist sets prices to balance these effects

The hypothetical monopolist test in practice

- Review all reasonably available and reliable evidence to identify a **candidate market** (Guidelines § 4.1.3)

- Apply the **hypothetical monopolist test** to test reasonable interchangeability

  "The Agencies **employ the hypothetical monopolist test to evaluate whether groups of products in candidate markets are sufficiently broad to constitute relevant antitrust markets**. The Agencies use the hypothetical monopolist test to identify a set of products that are reasonably interchangeable with a product sold by one of the merging firms." (Guidelines § 4.1.1)

Hypothetical monopolist tests confirm product market definition

- Tested MA plans as a candidate product market
  - Based on the market realities, documentary evidence, switching data, academic literature, and demand estimation

- **Multiple formulations of the hypothetical monopolist test confirm that MA plans constitute a relevant antitrust product market**

Single-product hypothetical monopolist test

- **Test #1:** Ask if the hypothetical monopolist's profits will increase by raising the price of one merging party MA plan by a SSNIP

> "When the necessary data are available, the Agencies also may consider a 'critical loss analysis' to assess the extent to which it corroborates inferences drawn from the evidence noted above. Critical loss analysis asks **whether imposing at least a SSNIP on one or more products in a candidate market would raise or lower the hypothetical monopolist's profits**." (Guidelines § 4.1.3)

Nevo Report, ¶¶ 168–177

Single-product test confirms market definition under all estimates

- **Using my estimates**, the HMT confirms the candidate market in all Complaint counties
  - Five and ten percent SSNIP profitable for **all Complaint counties**
- **Using Mr. Orszag's estimates**, the HMT confirms the candidate market in nearly all Complaint counties
  - Five percent SSNIP profitable for **over 99 percent** of enrollment
  - Ten percent SSNIP profitable for **over 89 percent** of enrollment

Nevo Report, Exhibit 12; Nevo Reply Report, Exhibit 2

Academic research estimates confirm market definition

- **Test #2:** same as Test #1 using estimates and model from the academic literature
- Use Curto et al. estimates
- Among academic papers, least favorable to passing the test
  - Highest estimate of price sensitivity
  - Lowest nesting parameter

- **MA plans constitute relevant antitrust market** using Curto et al. estimates of customer substitution

Nevo Report, ¶ 180

Multiple-product hypothetical monopolist test

- **Test #3:** Allow the hypothetical monopolist to increase the price of *all* MA plans

- Test whether the profit-maximizing price increase for at least one merging party plan is more than a five percent SSNIP

- To implement this test, conduct a merger simulation

Nevo Report, ¶¶ 181–187

Merger simulation accounts for post-merger pricing incentives

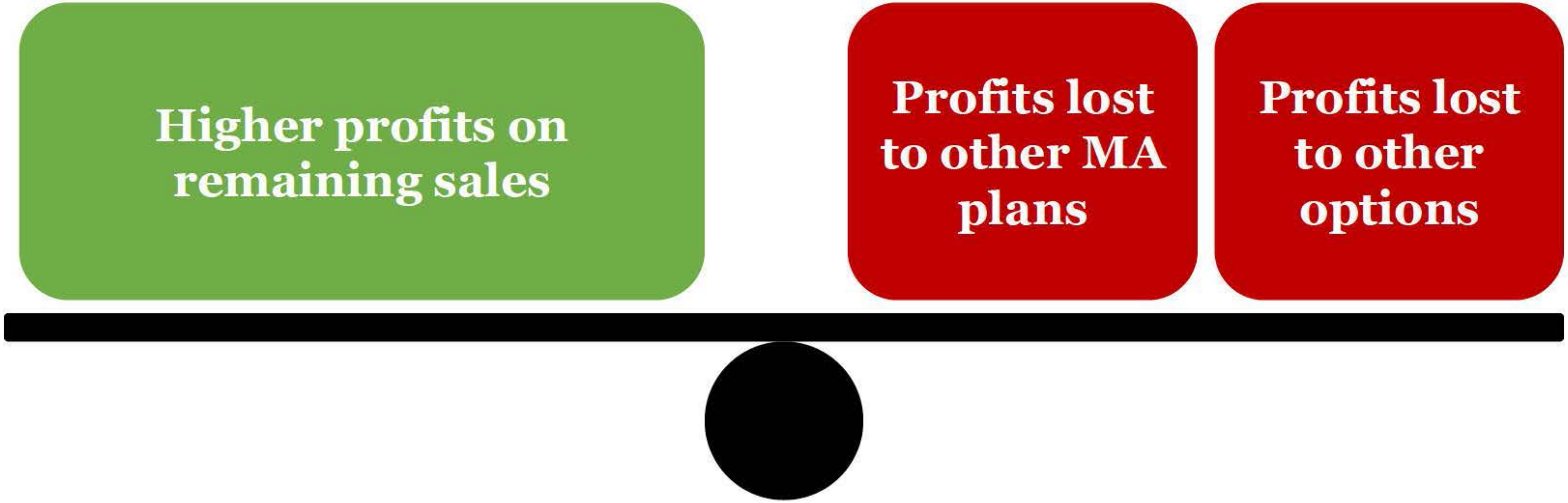
- Widely accepted, standard merger simulation model combines:
  - Customer substitution from the empirical analysis
  - Standard economic model of price setting

- Computes the effect of the merger to monopoly on pricing decisions

Nevo Report, ¶¶ 206–210

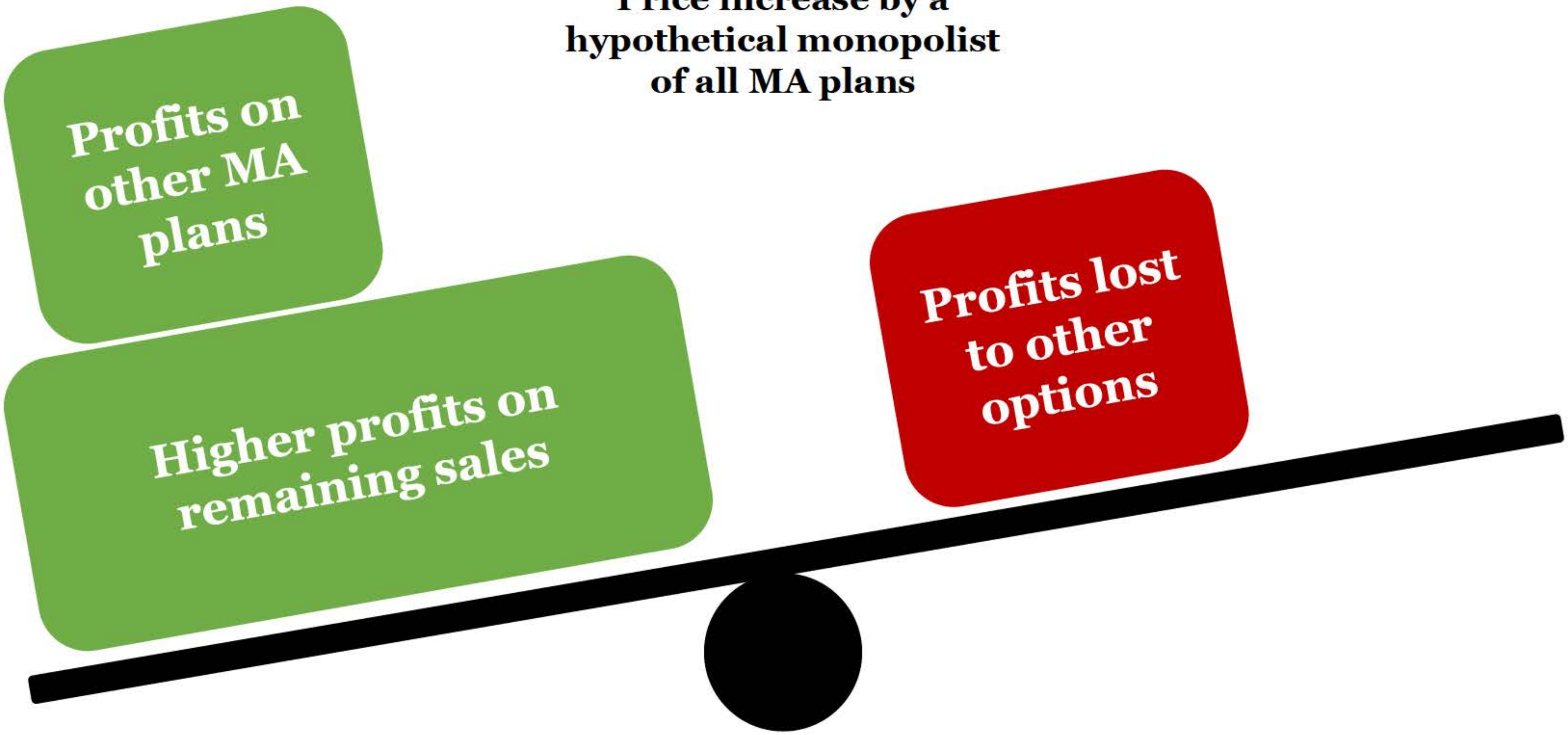
The intuition behind merger simulation

Price increase by a single firm



The intuition behind merger simulation

Price increase by a hypothetical monopolist of all MA plans



Multi-product test passes under all estimates

- **Using my estimates**, the HMT confirms the candidate market in all Complaint counties
  - The profit-maximizing price increase in at least one plan was a SSNIP or higher in **all Complaint counties**

- **Using Mr. Orszag's estimates**, the HMT confirms the candidate market in nearly all Complaint counties
  - The profit-maximizing price increase in at least one plan was a SSNIP or higher in counties representing **over 99 percent** of enrollment

Nevo Report, Exhibit 14; Nevo Reply Report, Exhibit 3

Multiple sources of evidence demonstrate that MA plans constitute a relevant antitrust product market

1. Market realities
2. Documentary evidence
3. Actual customer substitution
4. Academic literature
5. Empirical analysis of plan choice
6. Hypothetical monopolist tests

MA plans constitute a relevant antitrust product market

- Each analysis, on its own, supports my conclusion regarding product market definition

- Jointly, they provide **clear and consistent evidence** that MA plans constitute a relevant antitrust product market

Summary of opinions on Medicare Advantage

1. The relevant antitrust market is Medicare Advantage (MA) plans sold to individuals within each Complaint county

2. **The proposed merger will lessen competition in each Complaint county**

3. The potential mitigating factors put forward are insufficient to restore the lost competition

Multiple sources of evidence demonstrate that the proposed merger will lessen competition in each Complaint county

1. Concentration measures
2. Merger simulation
3. Documentary evidence
4. Future competition

Multiple sources of evidence demonstrate that the proposed merger will lessen competition in each Complaint county

1. **Concentration measures:** The proposed merger would increase concentration in already highly concentrated markets
2. Merger simulation
3. Documentary evidence
4. Future competition

The proposed merger will increase concentration in already highly concentrated markets

- Concentration calculated using standard methodology

  "The Agencies often calculate the **Herfindahl-Hirschman Index ('HHI') of market concentration**. The HHI is calculated by summing the squares of the individual firms' market shares" (Guidelines § 5.3)

- Examples:
  - Monopoly: HHI = 10,000
  - 5 equal size firms: HHI = 2,000
  - Many very small firms: HHI close to zero

Concentration levels in the Complaint counties meet the thresholds for presumptive harm

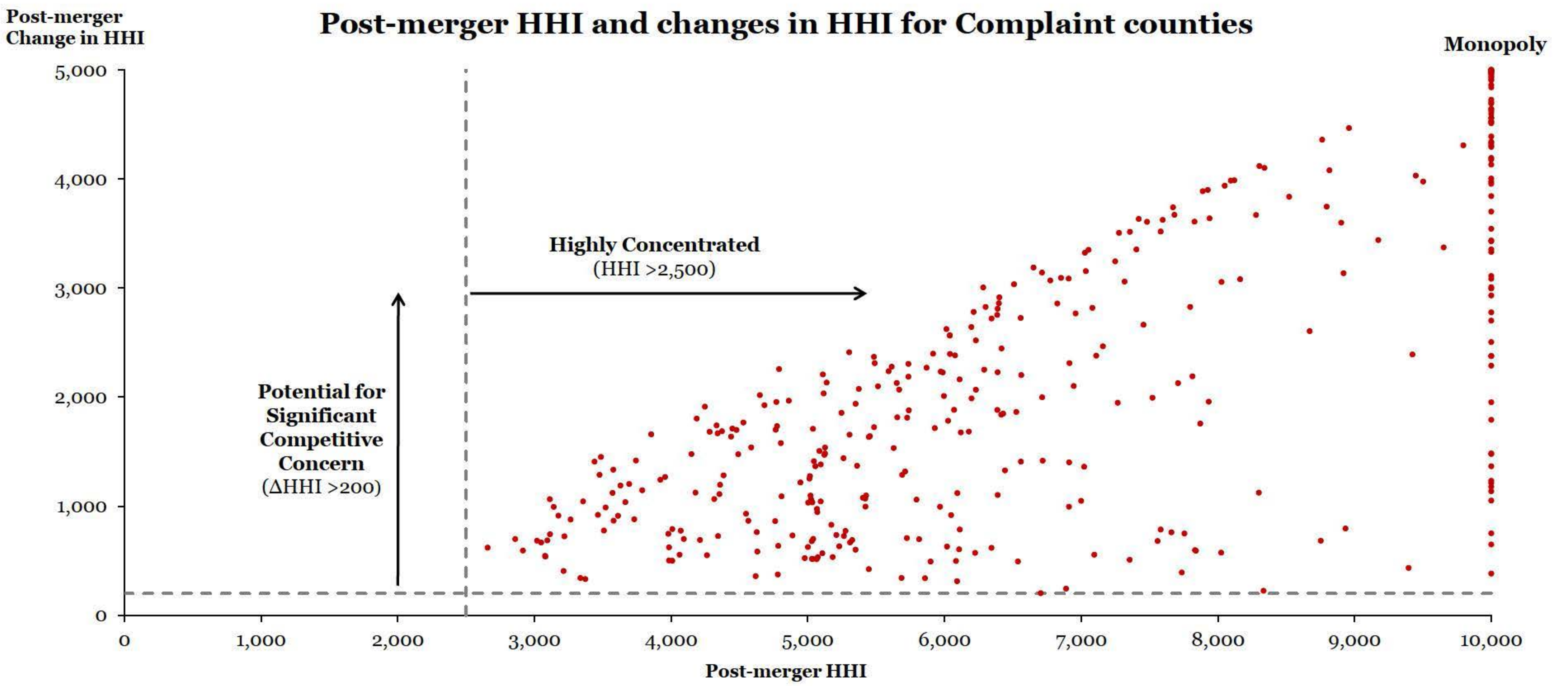
- Two thresholds in the Guidelines for presumptive increase of market power

  1. Highly Concentrated Markets (HHI above 2,500)
  2. Increase in the HHI of more than 200 points (ΔHHI)

- Both thresholds are met in the Complaint counties

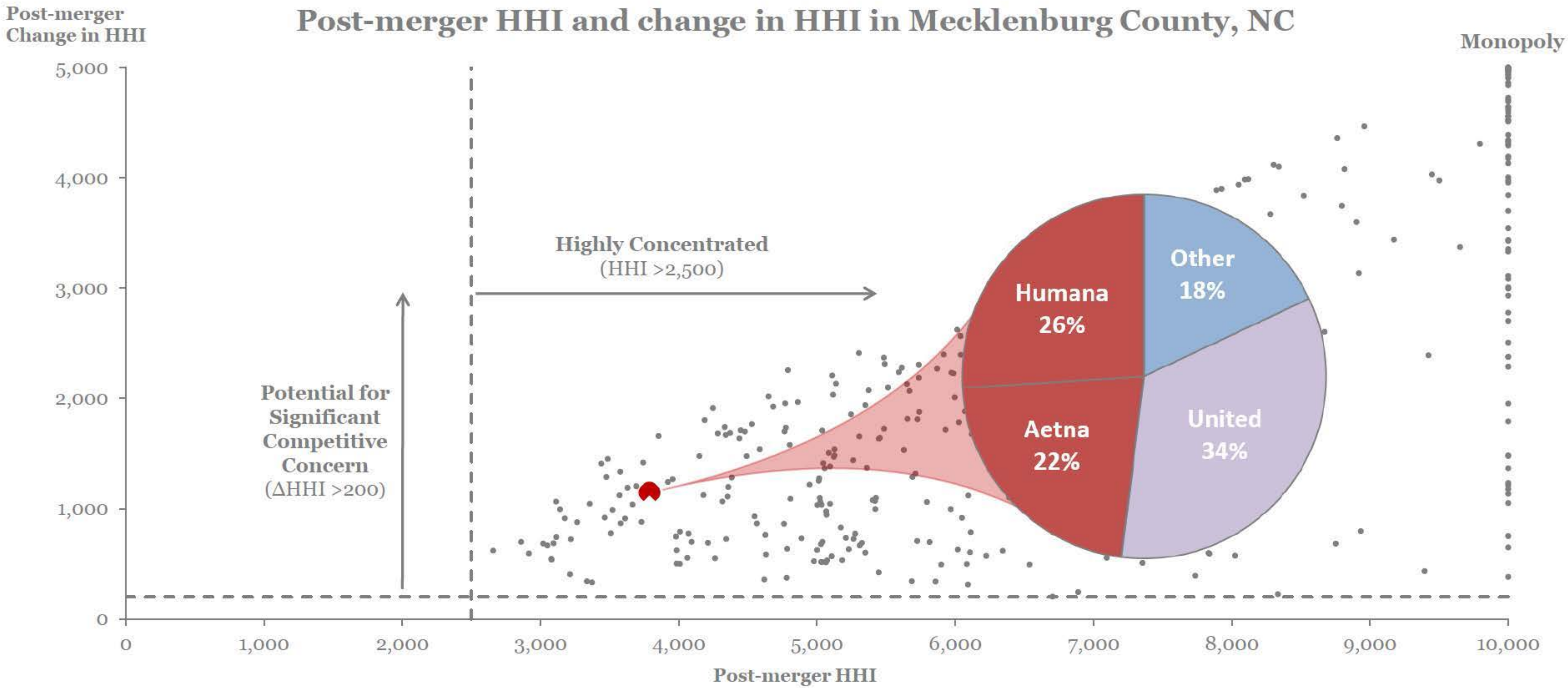
Nevo Report § 3.3.1, Appendix I; Guidelines § 5.3

Both thresholds are met in the Complaint counties



Nevo Report, Exhibits 15 and 16, Appendix I

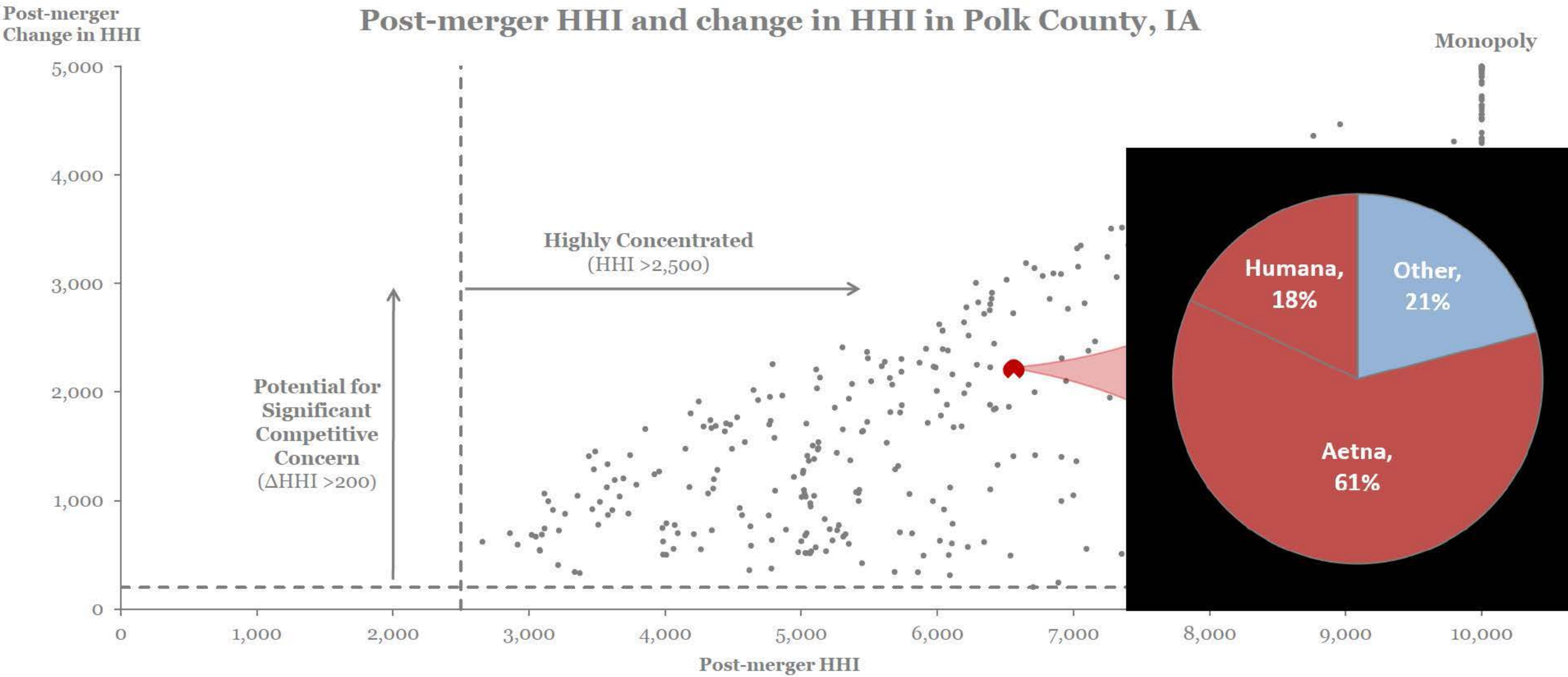
Both thresholds are met in Mecklenburg County, NC



Nevo Report, Exhibits 15 and 16, Appendix I

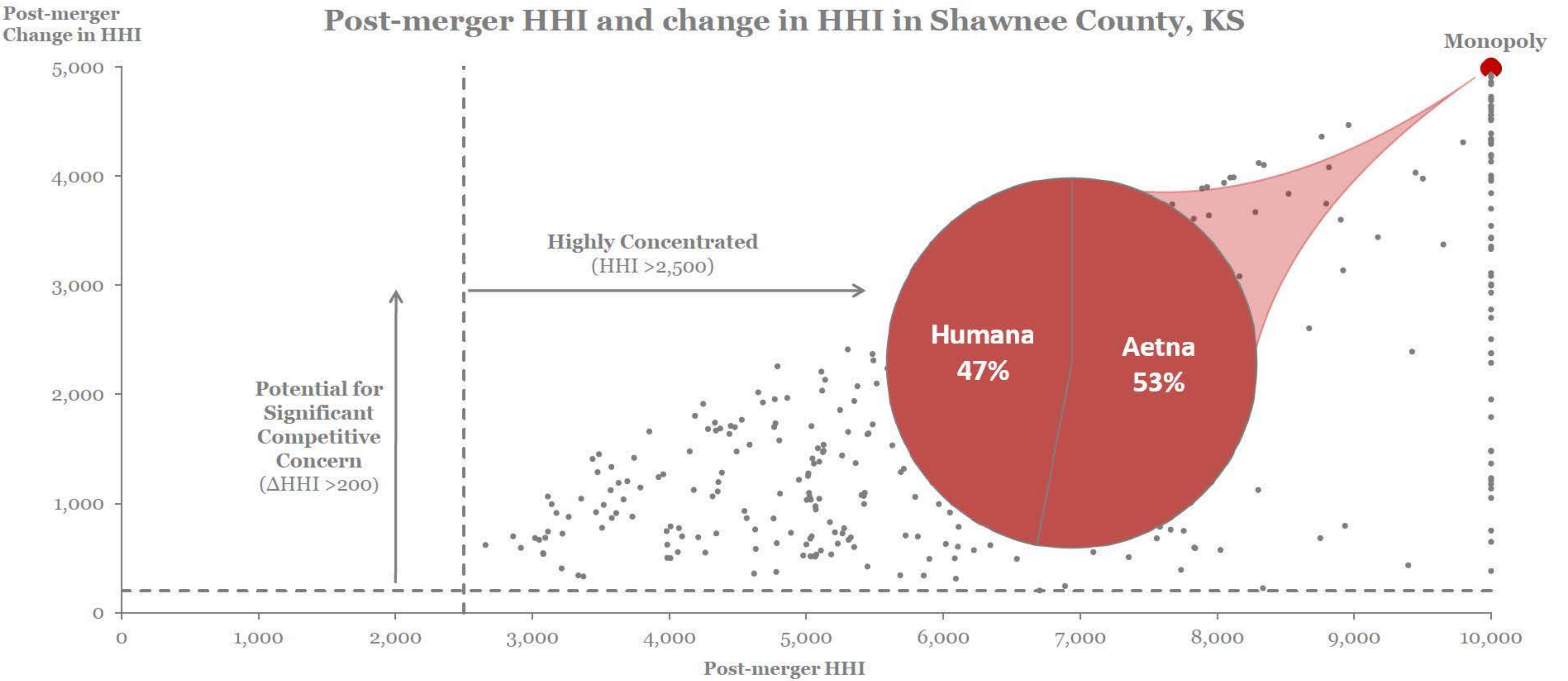
Both thresholds are met in Polk County, IA

Post-merger HHI and change in HHI in Polk County, IA



Nevo Report, Exhibits 15 and 16, Appendix I

Both thresholds are met in Shawnee County, KS



Nevo Report, Exhibits 15 and 16, Appendix I

Multiple sources of evidence demonstrate that the proposed merger will lessen competition in each Complaint county

1. Concentration measures
2. **Merger simulation:** Prices consistently increase under all models estimated in this matter
3. Documentary evidence
4. Future competition

Merger simulation does not rely on market definition

- Use the same merger simulation methodology explained earlier

  "Where sufficient data are available, the Agencies may construct economic models designed to quantify the unilateral price effects resulting from the merger. … **These merger simulation methods need not rely on market definition**." (Guidelines § 6.1)

- **My merger simulation accounts for any constraints from Original Medicare, with or without supplements**

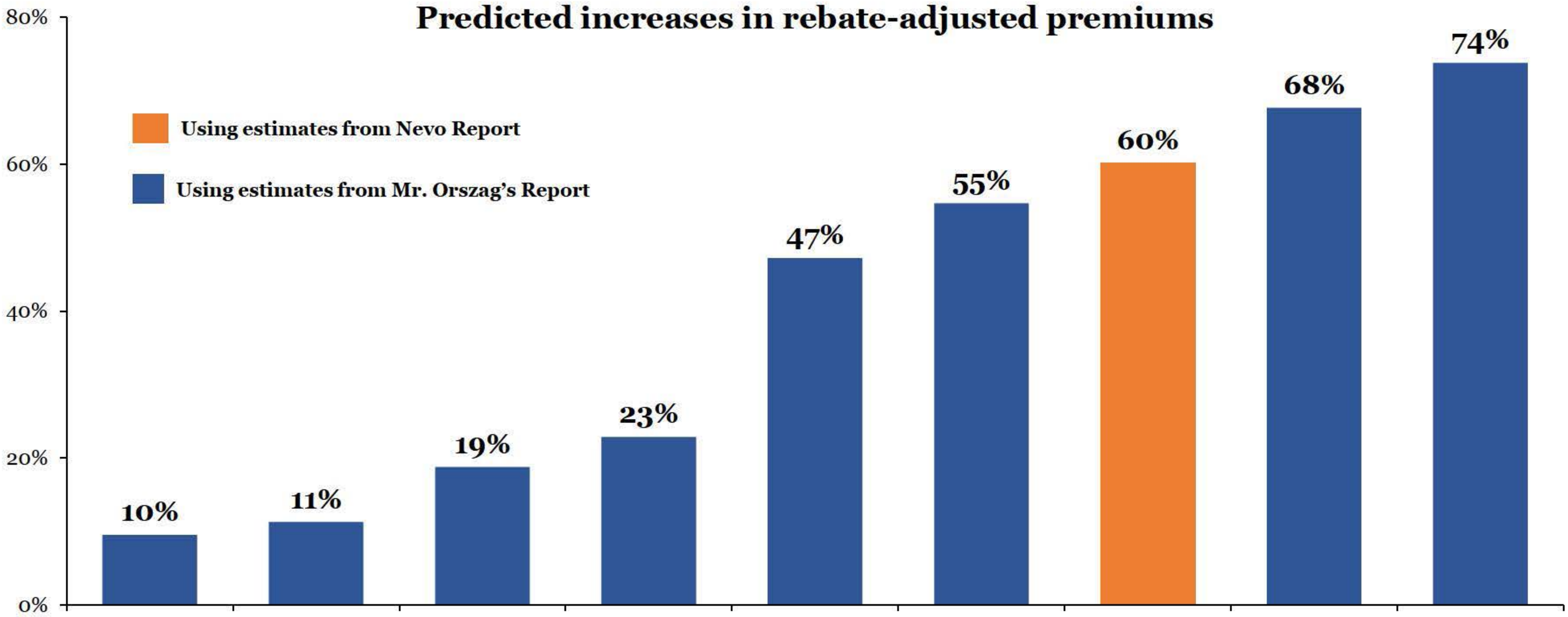
Measure price through rebate-adjusted premiums

- Reflects
  1. Total premiums, including Part B
  2. Supplemental benefits paid for by CMS

- Closely related to MACVAT measure used by the industry
- Used by academic literature

Nevo Report, ¶¶ 156–159

Prices consistently increase under all estimates in this matter



Nevo Report, Exhibit 17; and Nevo Reply Report, Exhibit 12

Annual harm of more than $500 million to seniors and taxpayers

- Likely substantial harm in Complaint counties
  - Rebate-adjusted premiums substantially increase
  - Same qualitative result using Mr. Orszag's preferred estimates

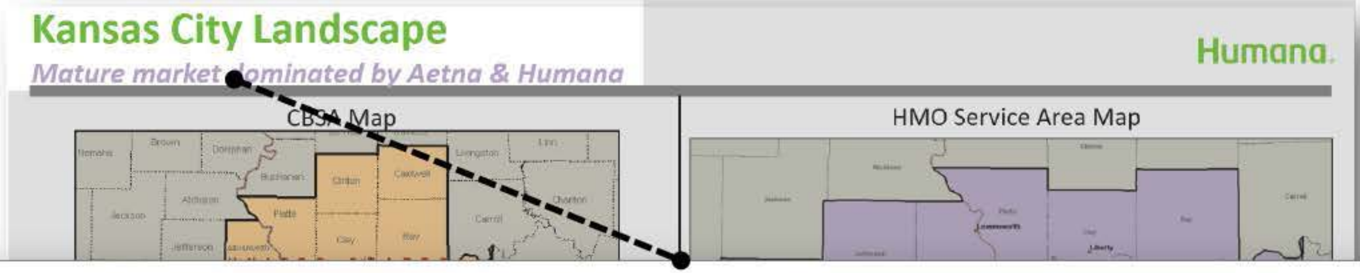
- Based on 2016 enrollment:
  - **Seniors: $359 million** from increased rebate-adjusted premiums
  - **Taxpayers: $145 million** from increased CMS payments to insurers

Nevo Report, ¶¶ 214–215, Exhibit 17

Multiple sources of evidence demonstrate that the proposed merger will lessen competition in each Complaint county

1. Concentration measures
2. Merger simulation
3. **Documentary evidence:** Defendants see each other as close competitors
4. Future competition

Documents demonstrate Humana sees Aetna as a close competitor



Kansas City Landscape

Mature market dominated by Aetna & Humana

[redacted]

Nevo Report, ¶¶ 200–205; PX0022 at 6

Documents demonstrate Aetna sees Humana as a close competitor

RE: Domain Performance (Aetna Humana).pptx

From:
"Crainich, Michael" <crainichm1@aetna.com>
To:
"Kavouras, Michael" <mpkavouras@aetna.com>
Date:
Tue, 14 Oct 2014 15:11:46 +0000
Attachments:
Patient Safety Performance (Aetna & Humana).pptx (933.47 kB)

Good Morning Mike,

The attached ppt contains 2 slides displaying the performance based on a straight average across all contracts and an enrollment weighted performance. Viewing the straight average performance Humana outperforms Aetna on all Patient Safety measures but when viewing the enrollment weighted results Aetna outperforms Humana on the 3 adherence measures.

> Is there a way for us to get market intelligence on what Humana may be doing, vendors they may be utilizing? This may point us in the direction of what we may need to deploy in 2015 to close this gap with our primary MA competitor.

Tomorrow, can you take the Aetna and Humana comparison and develop one slide for Mitzi and Yi that drills down at the measure level for the 5 Part D patient safety measures? We'd like to see if they are kicking our butts on something specific with the Rx measures or is it across the board. Thanks!

From: Wasik, Mitzi
Sent: Monday, October 13, 2014 1:57 PM
To: Kavouras, Michael; Zheng, Yi
Cc: Roberts, Alan M
Subject: RE: Domain Performance (Aetna Humana).pptx

Is there a way to break it down to comparison by part D measure? Might help us ask the questions better! thanks!

From: Kavouras, Michael
Sent: Monday, October 13, 2014 2:13 PM
To: Wasik, Mitzi; Zheng, Yi
Cc: Roberts, Alan M
Subject: Domain Performance (Aetna Humana).pptx

Since Humana had a very strong year in Stars, our Business Intelligence Team placed our performance in the various domains head-to-head against Humana's.

It's a mixed bag where we are outperforming them in numerous categories (HEDIS, Readmissions, HOS and Ops) but

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PLAINTIFFS' EXHIBIT
PX0027

AET-P003-0003587228

they are outperforming us in others (CAHPS and Part D Patient Safety). The delta in Part D patient safety scores for Humana is where they are really differentiating themselves.

Is there a way for us to get market intelligence on what Humana may be doing, vendors they may be utilizing? This may point us in the direction of what we may need to deploy in 2015 to close this gap with our primary MA competitor.

Thanks!

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AET-P003-0003587229

Nevo Report, FN 280; and PX0027 at 1

Multiple sources of evidence demonstrate that the proposed merger will lessen competition in each Complaint county

1. Concentration measures
2. Merger simulation
3. Documentary evidence
4. **Future competition:** The proposed merger would eliminate the benefits of future competition between Defendants

Aetna has aggressively expanded in recent years

- Aetna expanded into 640 counties
  - **More than twice as many as any other insurer**

- Aetna captures and maintains higher share than other entrants

- Aetna is far less likely to exit than other entrants

Nevo Report, ¶ 225, Exhibit 18

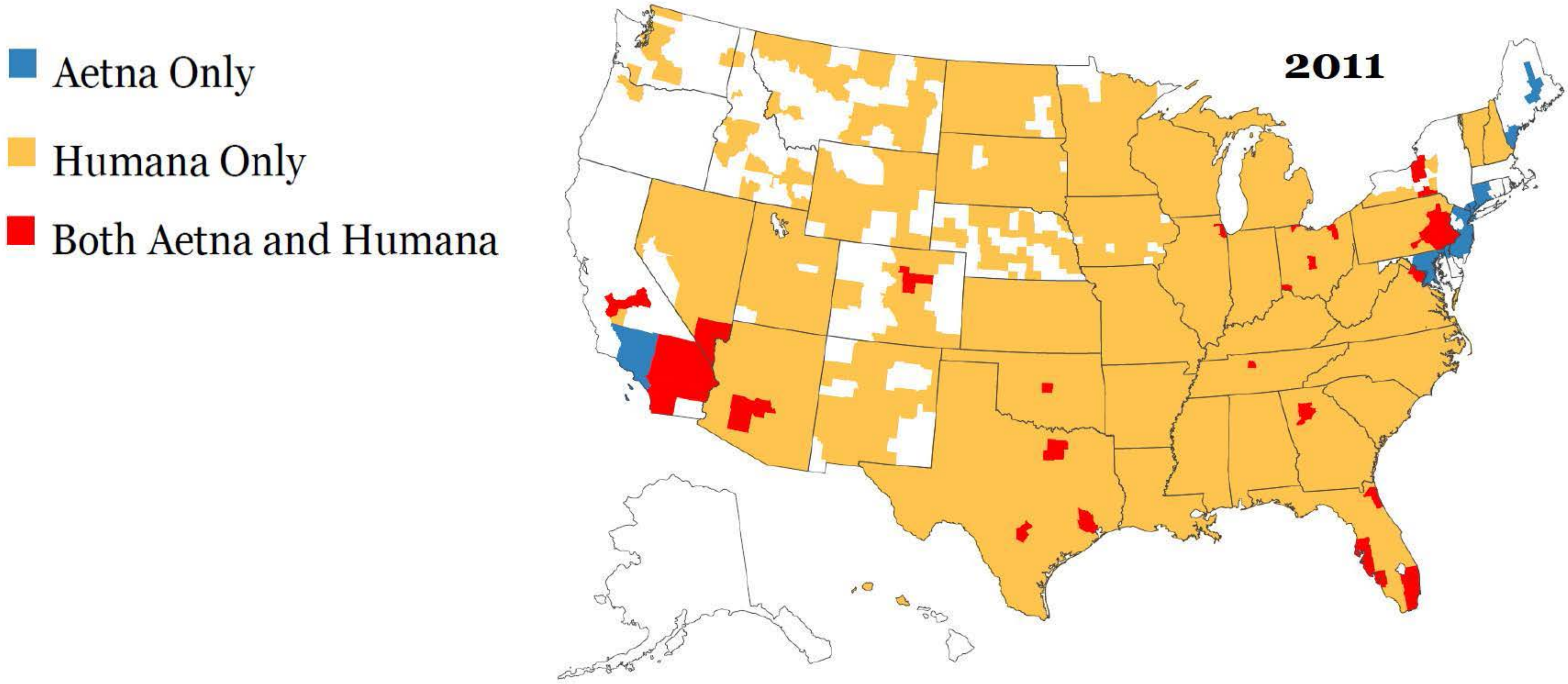
Aetna's standalone plan was to continue expanding

- At the time of the agreement, Aetna's standalone plan was to continue expanding its MA geographic footprint

- Aetna's plan to **offer plans to 70 percent of seniors** by 2020

Nevo Report, ¶¶ 223–224; PX0075

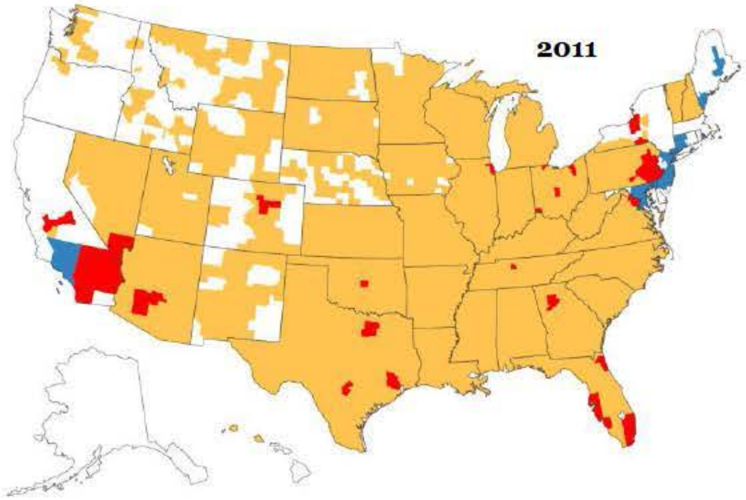
In 2011, Defendants competed in only 79 counties

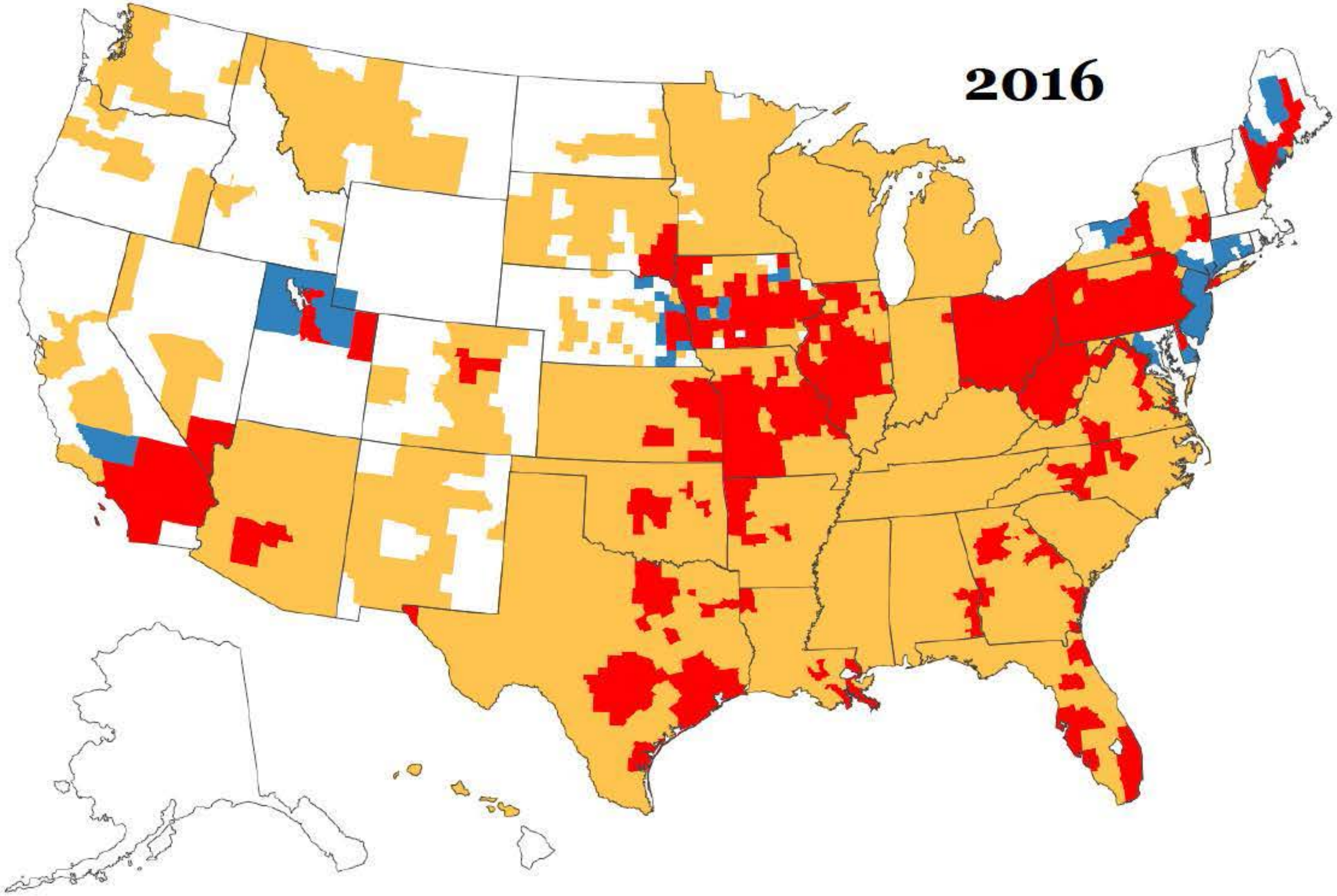


Nevo Report, ¶ 220, Exhibit 19

By 2016, Defendants compete in 675 counties

- Aetna Only
- Humana Only
- Both Aetna and Humana





Nevo Report, ¶ 220, Exhibit 19

Summary of opinions on Medicare Advantage

1. The relevant antitrust market is Medicare Advantage (MA) plans sold to individuals within each Complaint county

2. The proposed merger will lessen competition in each Complaint county

3. **The potential mitigating factors put forward are insufficient to restore the lost competition**

Potential mitigating factors are insufficient to restore the lost competition

1. Lessons from past mergers
2. Entry
3. Divestiture
4. Efficiencies

Potential mitigating factors are insufficient to restore the lost competition

1. **Lessons from past mergers:**
   1. Divestitures did not succeed in replacing lost competition
   2. Claimed efficiencies did not prevent price increases
2. Entry
3. Divestiture
4. Efficiencies

Humana–Arcadian sheds light on effect of mitigating factors

- **Humana–Arcadian**, March 2012
  - Presumptive harm in 168 counties
  - **Divestitures** in 45 counties

- Can use this merger to study:
  - Were the divestitures successful?
  - Was entry in response to the merger adequate?

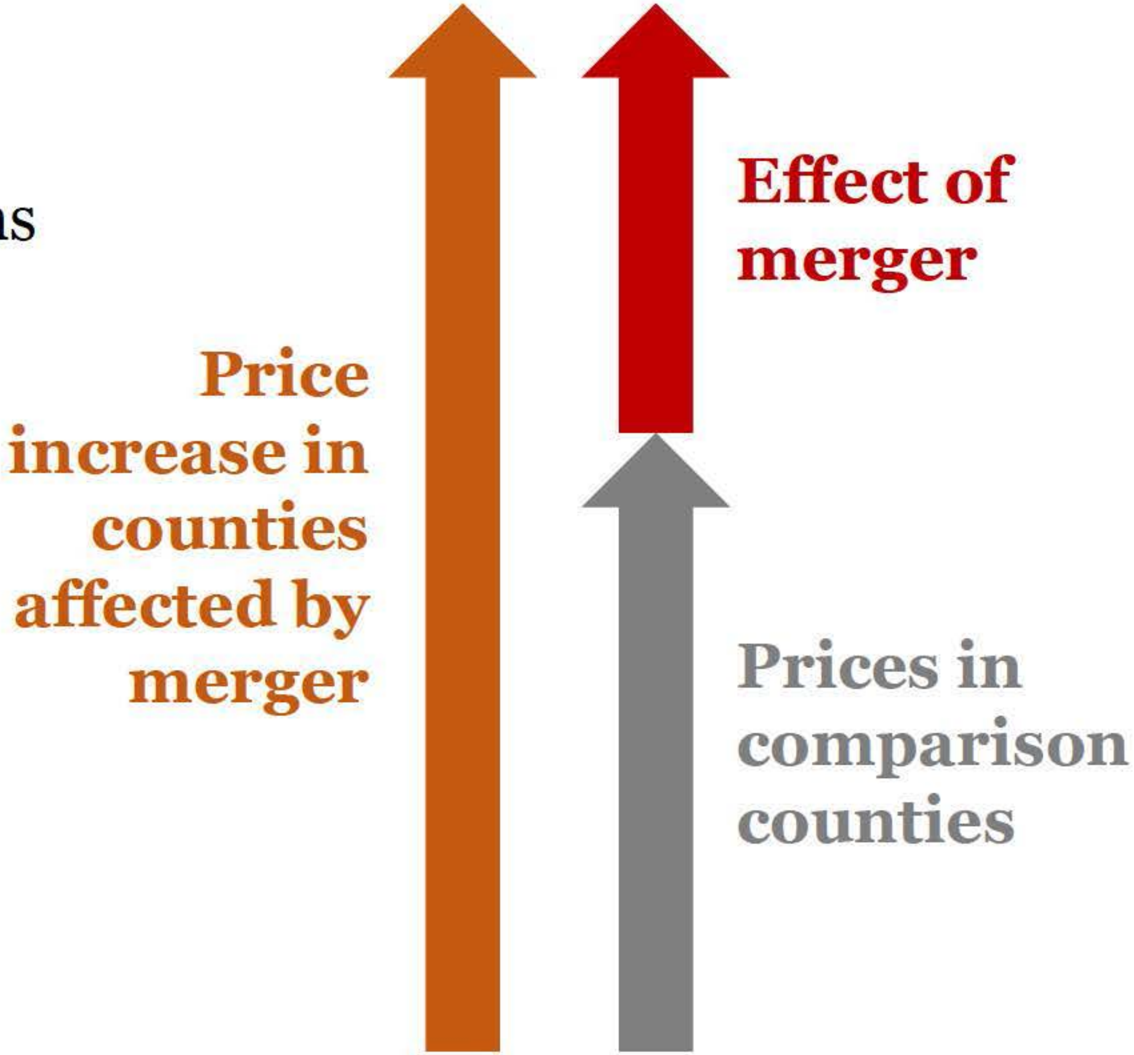
- Were price increases prevented by:
  - Mitigating factors?
  - Age-ins?
  - Regulation?

Nevo Report, ¶¶ 230–238

Evaluate the merger relative to a comparison set

- **Did prices increase** after the merger?
  - Focus on rebate-adjusted premiums
  - Reflect both premiums and additional benefits

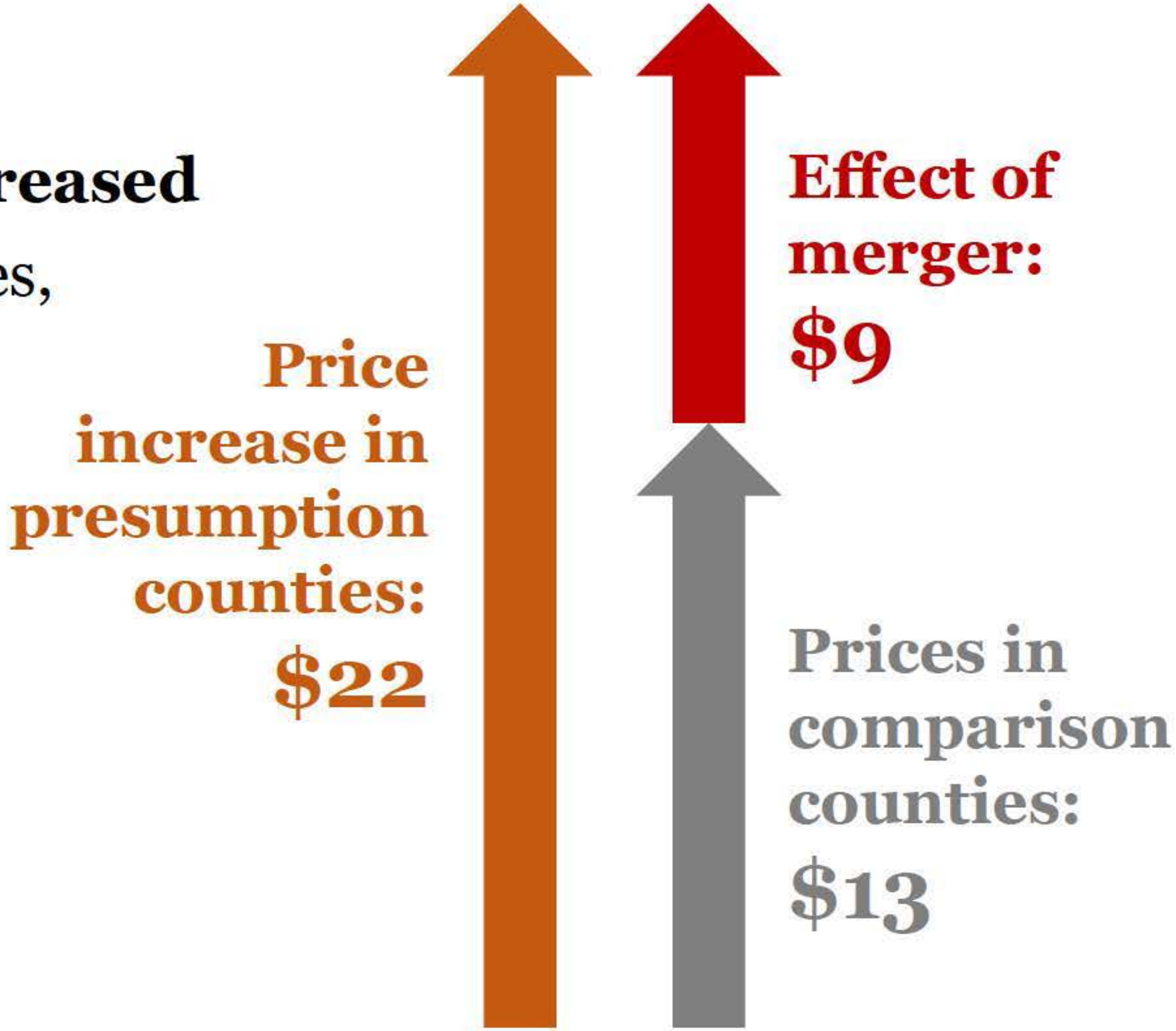
- How did the increase compare to a set of **comparison counties**?
  - Counties in same state not affected by merger
  - Shared changes would not be due to the merger



Prices increased in presumption counties

- After Humana–Arcadian, **rebate-adjusted premiums increased**
- **Despite** potential entry, divestitures, any efficiencies, CMS regulation, and age-ins

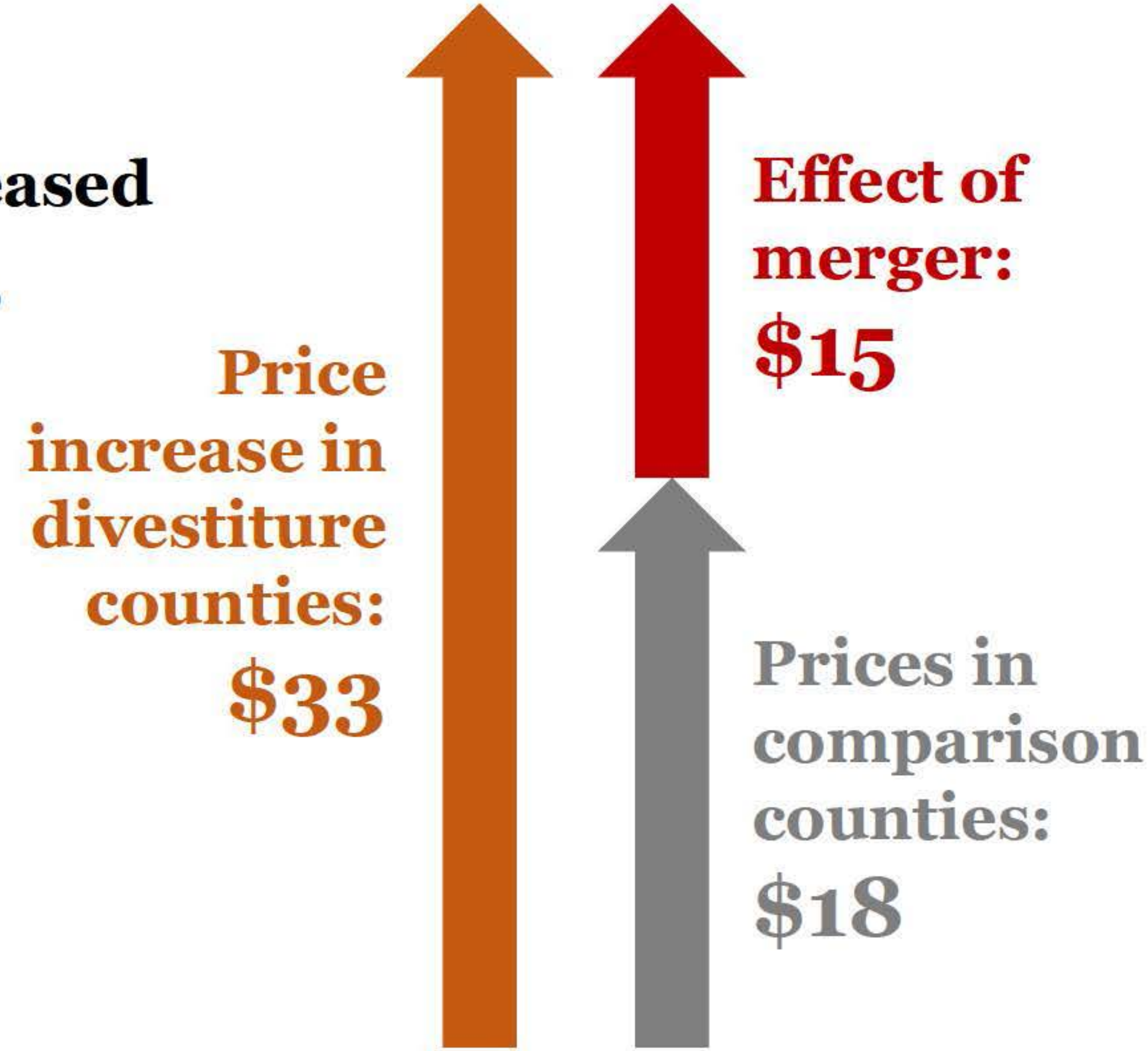
- Did mitigating factors prevent price increases?
    - $22 increase (48 percent) relative to pre-merger
    - **$9 increase (20 percent)** relative to comparison counties



Prices increased in divestiture counties

- After Humana–Arcadian, **rebate-adjusted premiums increased**
- **Despite** potential entry, divestitures, any efficiencies, CMS regulation, and age-ins

- Did the divestitures prevent price increases?
  - $33 increase (67 percent) relative to pre-merger
  - **$15 increase (30 percent)** relative to comparison counties



Humana–Arcadian divestitures did not succeed

- Buyers **exited in 47 percent** of counties by 2016
- **Fraction of enrollees retained** by 2016

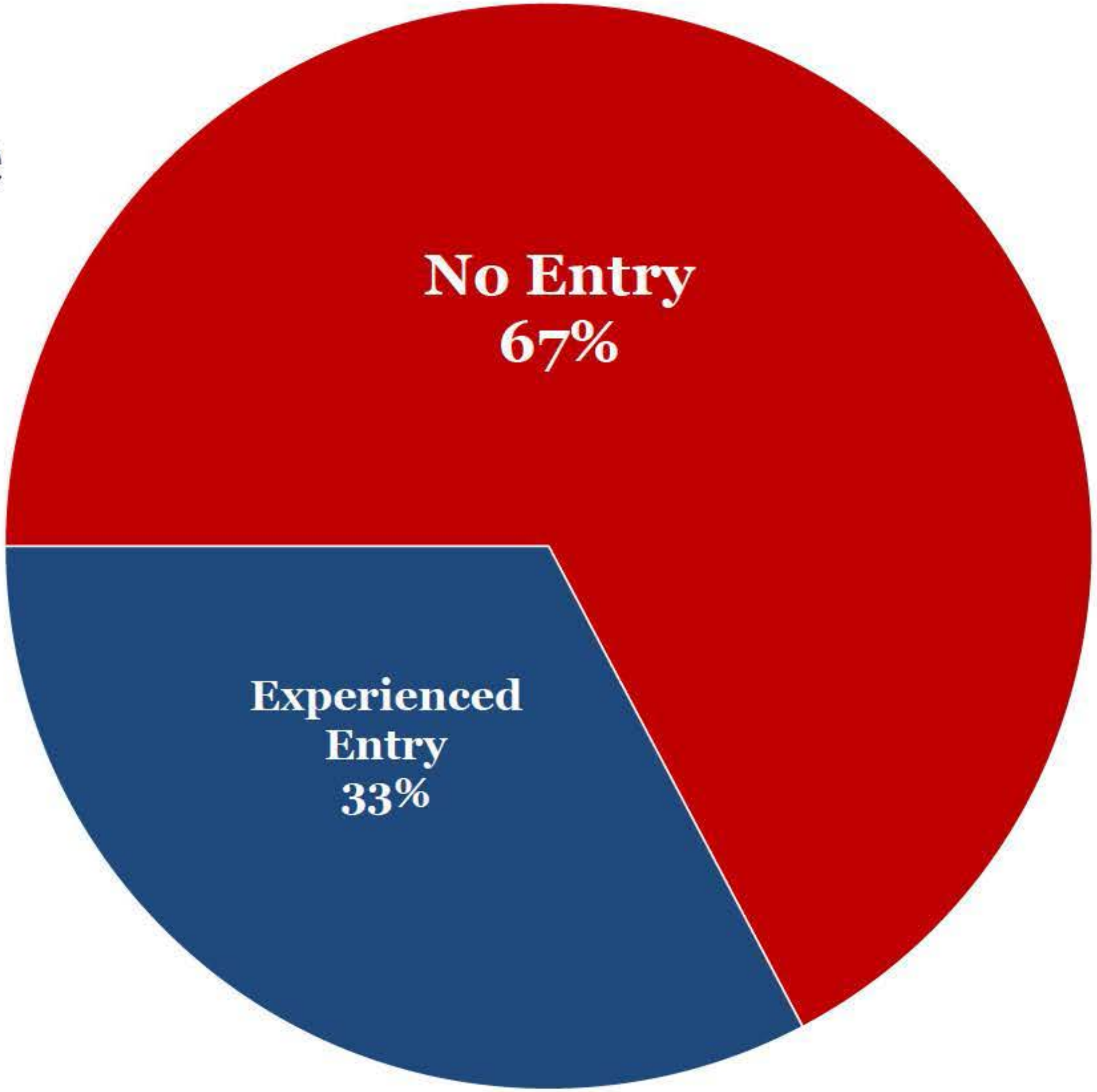
	All buyers	Buyers with no prior MA presence in county
Average	48 percent	32 percent
Median	33 percent	**0 percent**

- **Molina has no prior MA presence** in divestiture counties

Nevo Report, ¶ 237

Entry in response to Humana–Arcadian was not *likely*

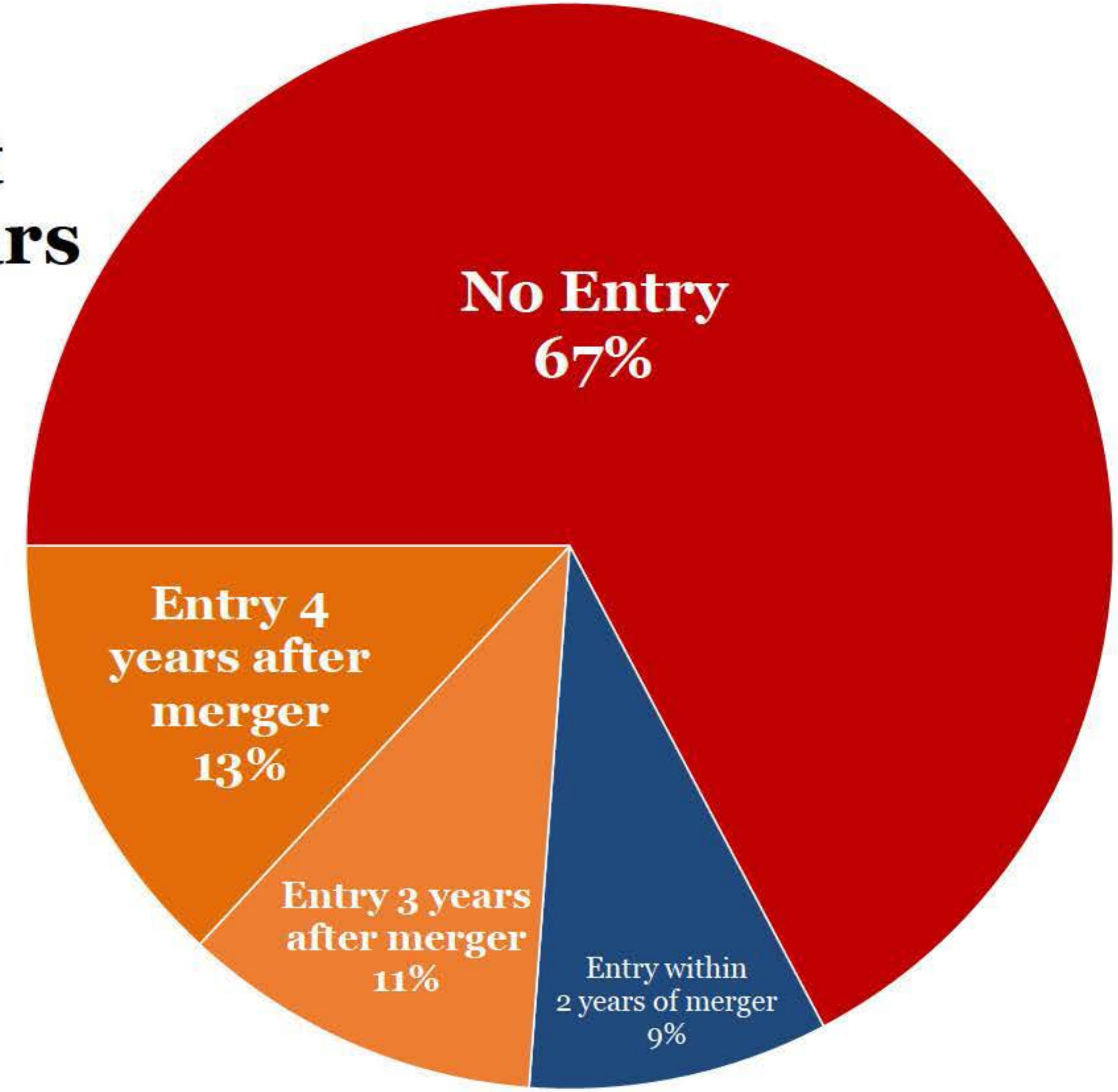
- Most presumption counties have experienced **no entry** by 2016
  - Only 33 percent of counties experienced any entry
  - Only 21 percent of counties had entrants that eventually reached **five percent** market share



Nevo Report, ¶ 238; Nevo Reply Report, ¶ 102

Entry in response to Humana–Arcadian was not *timely*

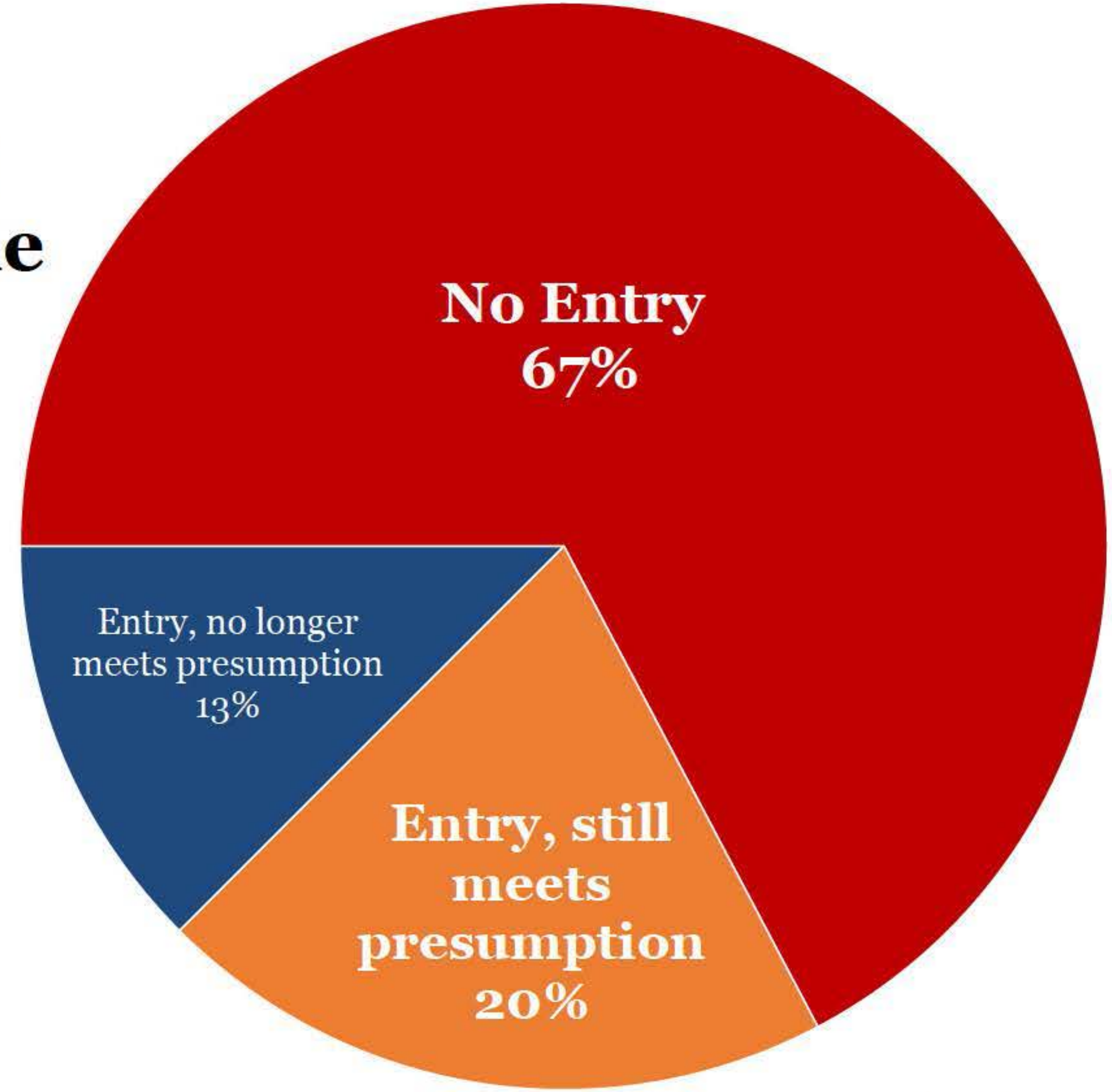
- In most presumption counties it took at least **three or four years** to experience entry



Nevo Report, ¶ 238; Nevo Reply Report, ¶ 108

Entry in response to Humana–Arcadian was not *sufficient*

- Most presumption counties that experienced entry **still meet the presumption thresholds**



Nevo Report, ¶ 238

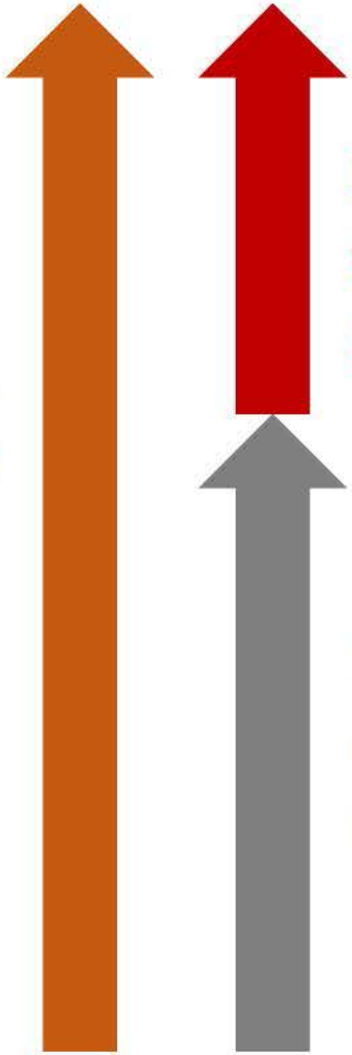
Aetna–Coventry demonstrates limited effect of efficiencies

- **Aetna–Coventry**, May 2013
  - No divestitures
  - Defendants claim as **example of efficiencies**
- Can use this merger to study:
  - The effect of claimed efficiencies

Merged firm increased prices despite mitigating factors

- After Aetna–Coventry, the merged firm **raised rebate-adjusted premiums**
- **Despite** potential entry, claimed efficiencies, CMS regulation, and age-ins

- Did the efficiencies prevent price increases?
  - $23 increase (69 percent) relative to pre-merger
  - **$9 increase (26 percent)** relative to comparison counties



Potential mitigating factors are insufficient to restore the lost competition

1. Lessons from past mergers
2. **Entry:** Entry will not be likely, timely, or sufficient
3. Divestiture
4. Efficiencies

How should “entry” be defined?

- **Plain English definition of entry**
  - An insurer enters if it (1) is present in a county in one year (offers MA plans); and (2) was not present in the previous year

Focus on non-merging parties

- Do not include Aetna and Humana: they are not available to enter

  "The prospect of entry into the relevant market will alleviate concerns about adverse competitive effects **only if such entry will deter or counteract any competitive effects** of concern so the merger will not substantially harm customers."
  (Guidelines § 9)

- They have been more successful than other entrants

Nevo Reply Report, ¶¶ 91–95

My conclusions are not affected by using a threshold to define entry

- Analyze entry in two ways:
  1. As defined earlier: present one year and not the prior year
  2. Look only at entrants that eventually exceed five percent share

- Use the actual year of entry when using a threshold

- Analyze entry in the last five years, 2012–2016

Nevo Reply Report, ¶¶ 91–95

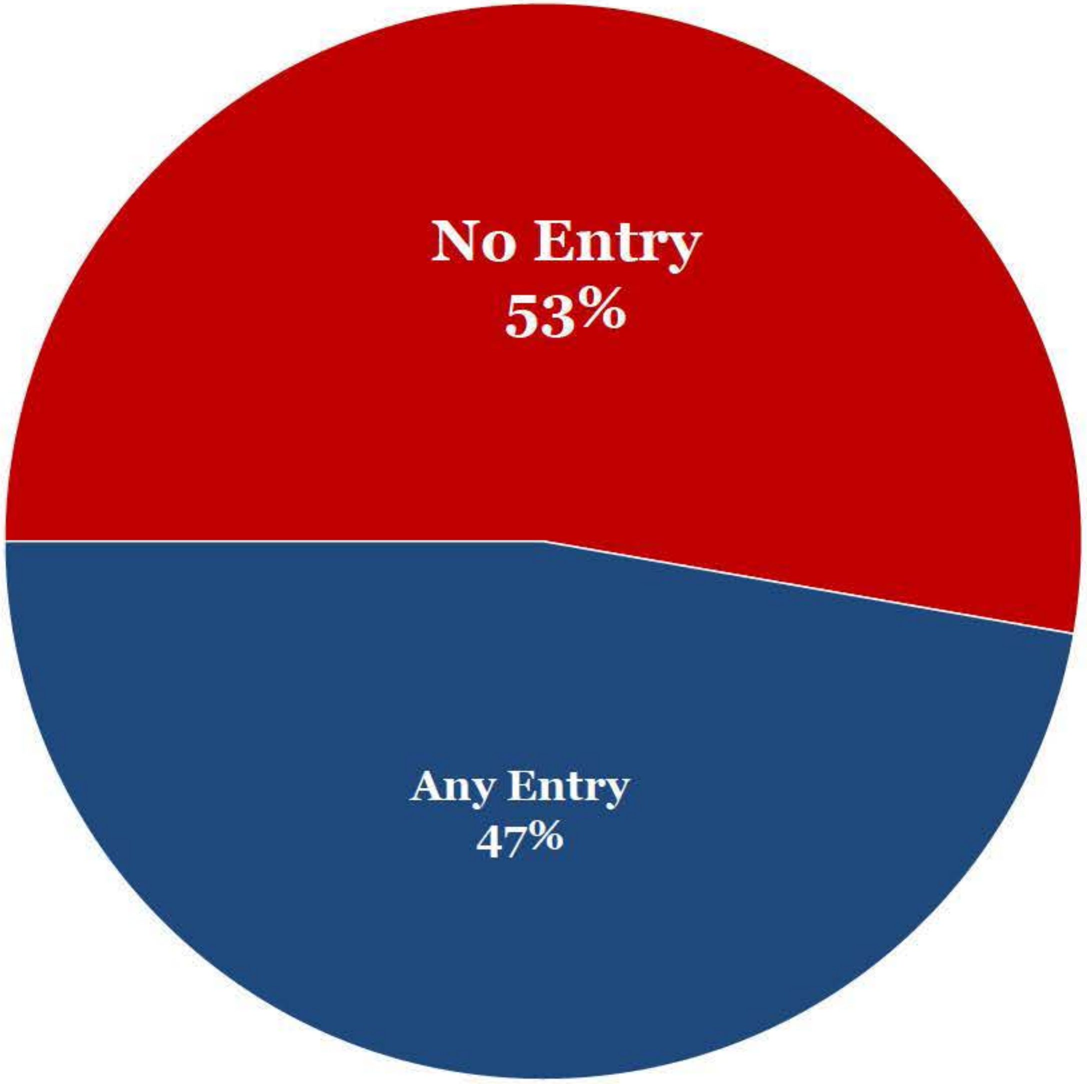
Entry into Complaint counties has not been *likely*

- Entry in **only** 13 percent of Complaint counties **per year**

- **Even over the last five years, no entry in many** Complaint counties

    - Only 47 percent of counties experienced **any** entry

    - Only 25 percent of counties had entrants that eventually reached **five percent** market share



Nevo Report, ¶ 253, Exhibit 25; Nevo Reply Report, ¶ 98, Exhibit 14

Timely entry must be rapid enough to prevent significant harm

"Even if the prospect of entry does not deter the competitive effects of concern, post-merger entry may counteract them. This **requires that the impact of entrants in the relevant market be rapid enough that customers are not significantly harmed by the merger**, despite any anticompetitive harm that occurs prior to the entry." (Guidelines § 9.1)

Entry will not be *timely*

- Developing a provider network can take **a full year or more**

- If entrants wait for merger-related uncertainty to be resolved, they will not be able to enter **until at least 2019**

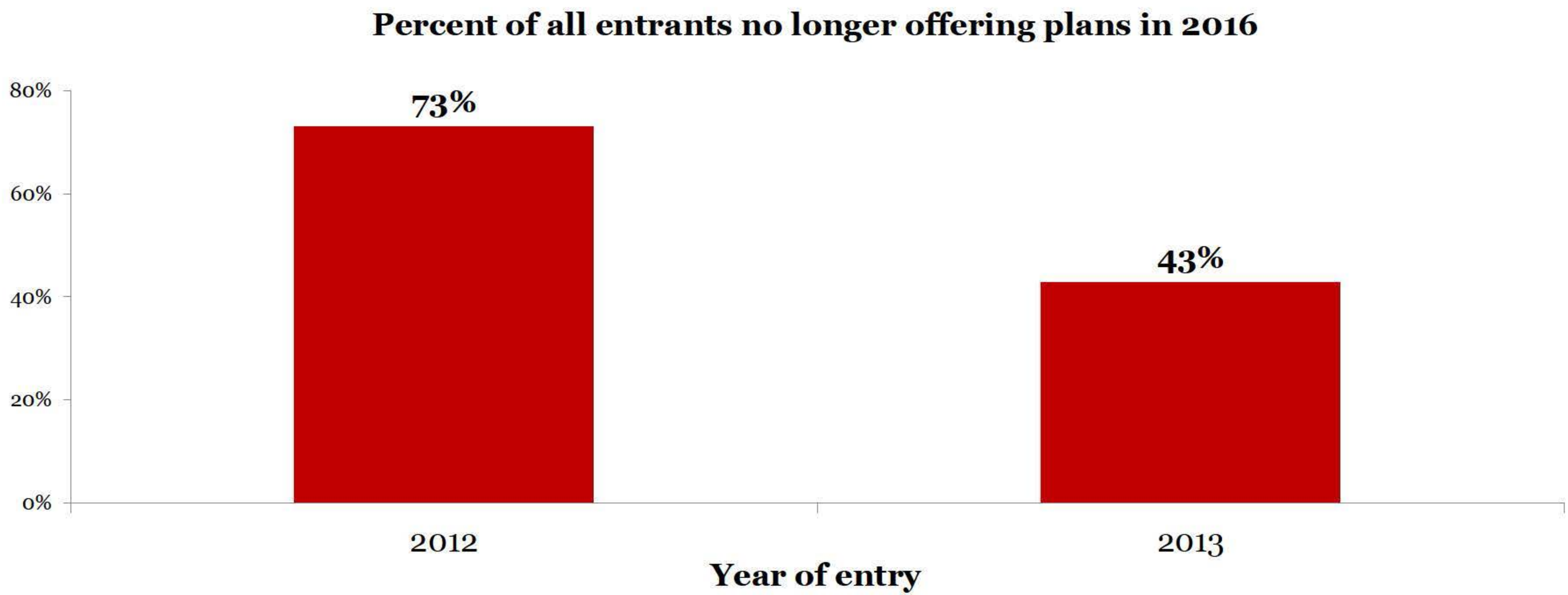
Nevo Reply Report, ¶¶ 105–108

Entry will not be *sufficient*

- Many MA entrants:
  1. **Do not survive**
  2. **Do not achieve sufficient share** to replace the lost competition

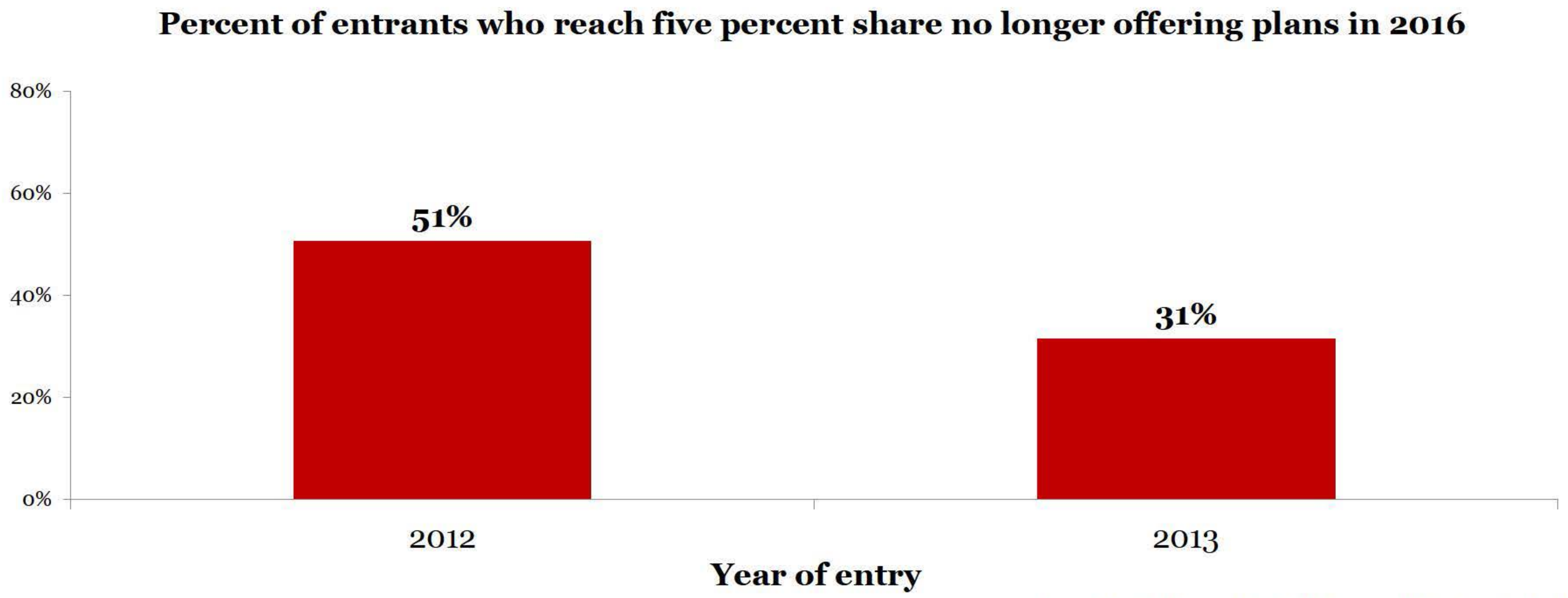
- Findings hold:
  - With or without a five percent threshold
  - With multiple entrants

Many entrants leave the market after three years



Nevo Report, Exhibit 26

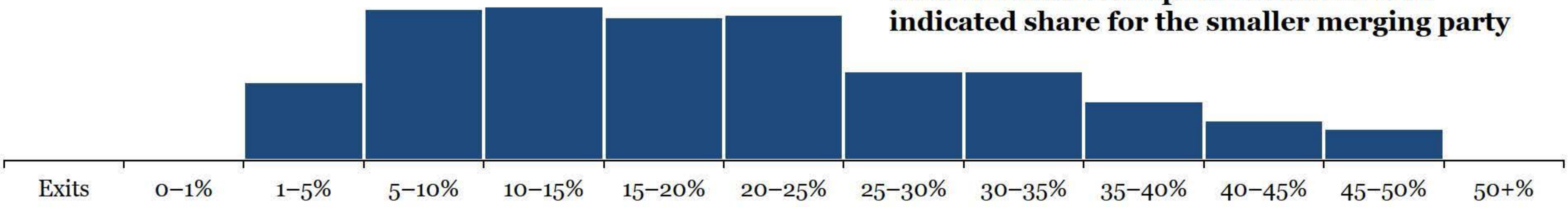
Even brief success does not ensure survival



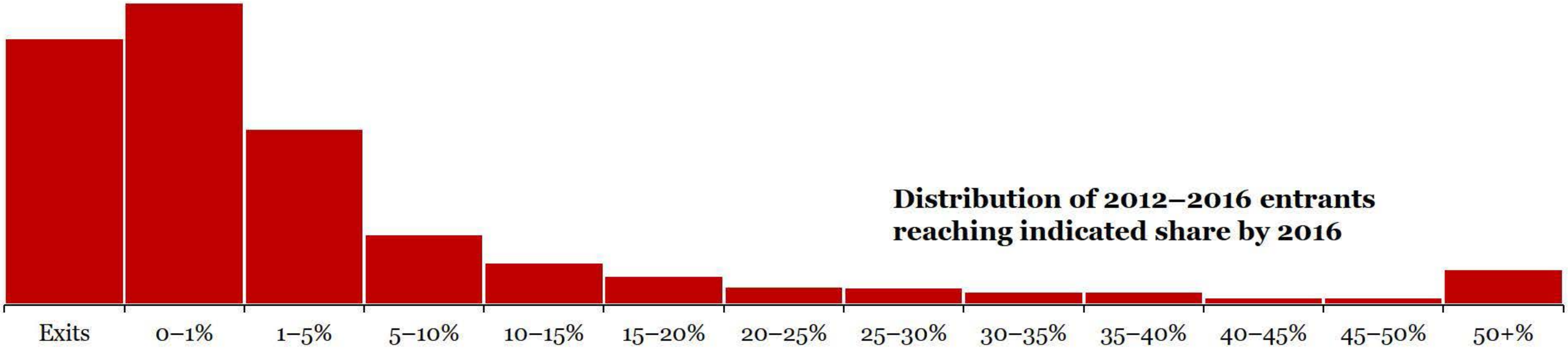
Nevo Reply Report, Exhibit 25 and Backup to Exhibit 25

Most entrants do not achieve *sufficient* share to replicate the smaller of the Defendants

Distribution of Complaint counties with indicated share for the smaller merging party



Distribution of 2012–2016 entrants reaching indicated share by 2016



Nevo Report, Exhibits 27 and 28

Even under generous assumptions, entry will not be *sufficient*

- Facts:
  - More than half of Complaint counties had no entry in five years
  - What entry took place after Humana–Arcadian took 3–4 years
  - Many entrants do not survive and the median entrant achieves less than one percent market share
- Make generous assumptions to Defendants and compute entry
  - Assign an entrant to every county
  - Assume entry is immediate
  - Assign each entrant market share of 2.7 percent, the average

- Even under these assumptions, **94 percent of Complaint counties still meet presumption thresholds**

Nevo Report, ¶ 259, Exhibit 30

Potential mitigating factors are insufficient to restore the lost competition

1. Lessons from past mergers
2. Entry
3. **Divestiture:** The potential divestiture will not offset the lost competition
4. Efficiencies

The potential divestiture will not mitigate competitive concerns

- For the potential divestiture to offset the competitive concerns, two things must be true

- The proposed buyer must:
  1. Become a **viable competitor** in the Complaint counties
  2. **Restore the competition** lost between Defendants

- The available evidence demonstrates that these conditions are unlikely to be met by Molina

Nevo Report, ¶¶ 243–249; and
DOJ Policy Guide to Merger Remedies, June 2011

Merger divestitures can fail to restore lost competition

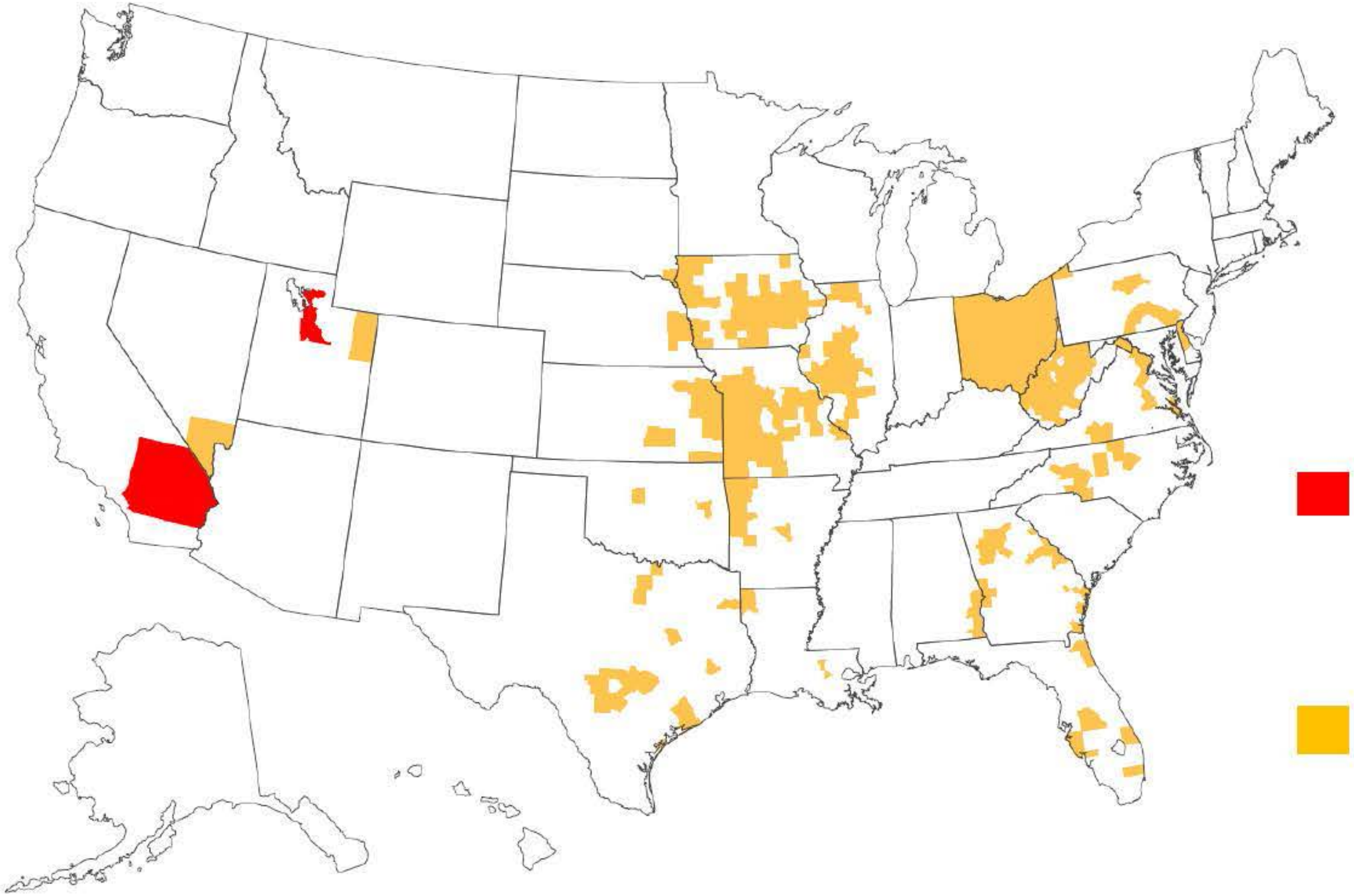
- Academic literature has studied divestitures that fail

- Studies identify certain features as associated with unsuccessful divestitures:
  - Weak buyers
  - Buyer receives partial or insufficient assets

- The proposed divestiture to Molina **suffers from both these flaws**

Nevo Report, ¶¶ 243–249

Molina has limited presence and a history of failure in MA

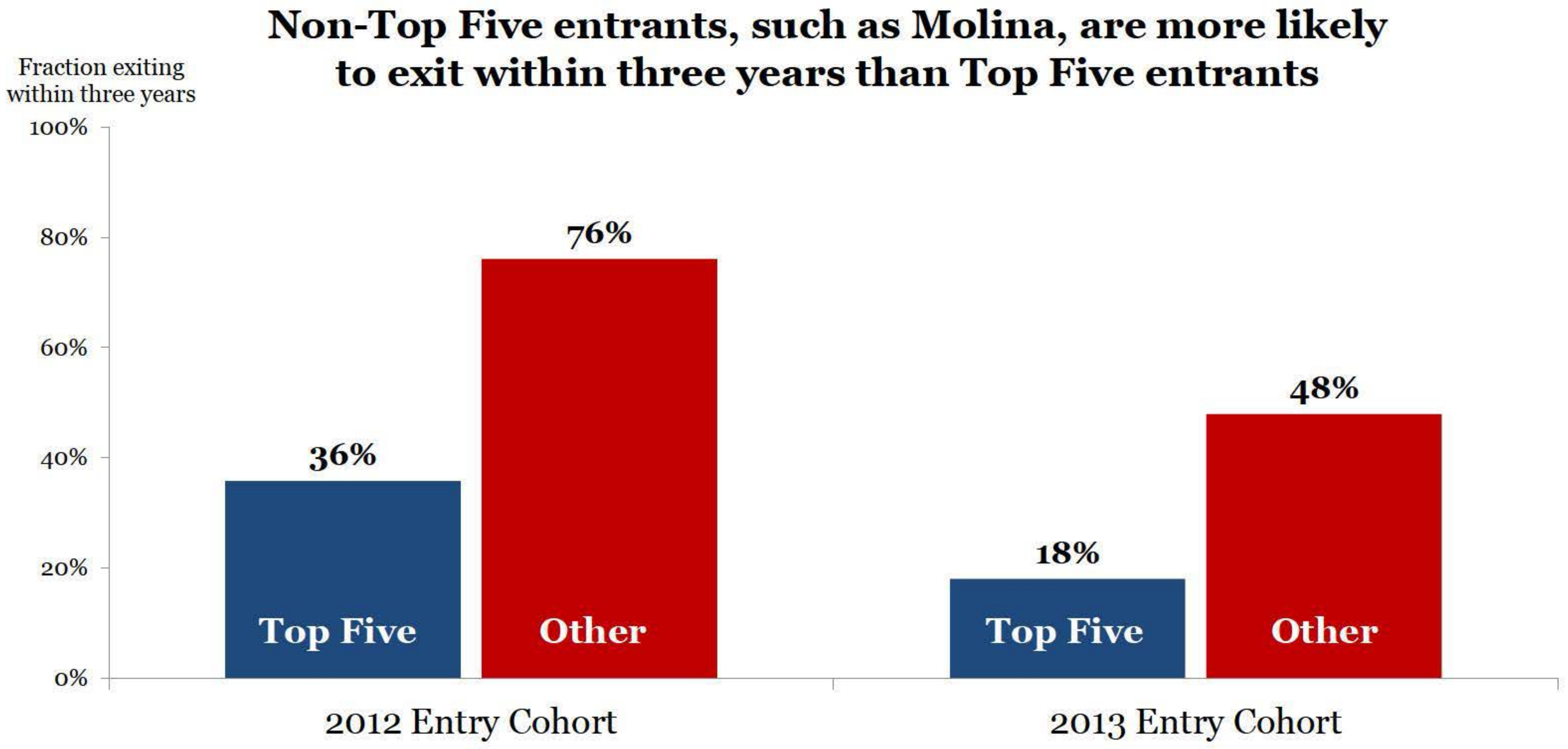


Molina's MA presence in 2016

Proposed divestiture to Molina

Nevo Report, Exhibit 24

Molina will be inhibited by its lack of brand recognition



Nevo Reply Report, Exhibit 18

Potential mitigating factors are insufficient to restore the lost competition

1. Lessons from past mergers
2. Entry
3. Divestiture
4. **Efficiencies:** Efficiency claims are insufficient to mitigate the lost competition

Efficiency claims are insufficient to mitigate lost competition

- To offset lost competition, efficiencies must be:

Merger-specific

"The Agencies credit **only those efficiencies likely to be accomplished with the proposed merger** and **unlikely to be accomplished in the absence of either the proposed merger** or another means having comparable anticompetitive effects. These are termed merger-specific efficiencies." (Guidelines § 10)

Verified

"Efficiency claims will not be considered if they are vague, speculative, or otherwise **cannot be verified** by reasonable means." (Guidelines § 10)

- I understand that **Defendants have not shown** their efficiencies claims to be merger-specific or verifiable

Nevo Report, ¶¶ 261–262; and
Expert Report of Christine M. Hammer, October 21, 2016

All potential mitigating factors together are still insufficient

- Facts
  - Defendants have not verified efficiencies or shown them to be merger-specific
  - More than half of Complaint counties had no entry in five years; many entrants do not survive and the median entrant achieves less than one percent market share
  - Molina record in MA; median buyer in Humana–Arcadian with no presence failed
- Make generous assumptions to Defendants
  - Half a percent efficiencies
  - Assign an entrant to every county with market share of 2.7 percent, the average
  - Molina retains 33 percent of enrollment received from Defendants

- Even under these favorable assumptions, a merger simulation shows that **rebate-adjusted premiums would increase**

Nevo Report, ¶¶ 248, 253, 261–262, Exhibits 25 and 28; and Expert Report of Christine M. Hammer, October 21, 2016

Prices increase even allowing for potential mitigating factors

- Plans that the merged firm will retain in the Complaint counties **increase rebate-adjusted premiums by 15 percent**

Summary of opinions on Medicare Advantage

1. The relevant antitrust market is Medicare Advantage (MA) plans sold to individuals within each Complaint county

2. The proposed merger will lessen competition in each Complaint county

3. The potential mitigating factors put forward are insufficient to restore the lost competition

Individual commercial insurance

Different sources of insurance for non-seniors

- Employer-sponsored
- Medicaid, Medicare for special needs
- Individual: **on-exchange** and off-exchange

Nevo Report, ¶¶ 271–286

ACA exchanges provide centralized, standardized marketplaces

- ACA individual mandate

- Four “metal tiers”
- Subsidies for low-income individuals
  - Premiums
  - Cost-sharing

- 700,000 enrollees in the 17 Complaint counties

Nevo Report, ¶¶ 271–286

Assignment on individual commercial insurance

- Asked to analyze the competitive effects of the proposed merger in individual commercial insurance markets as if Aetna had not withdrawn from the 17 Complaint counties
  - There is a question as to whether Aetna's decision was strategically motivated by the proposed merger and this litigation
  - Proceed under the assumption that market outcomes in 2016 are informative about the state of competition in future years but-for the proposed merger
  - If the merger is blocked, Aetna may decide to re-enter these counties and restore its competition with Humana
  - Basic economic theory teaches that firms operate in markets they expect to be profitable

Nevo Report, ¶¶ 266–270

Summary of opinions on individual commercial insurance

1. The relevant antitrust market is individual commercial health insurance plans sold on the ACA exchanges within each Complaint county

2. The proposed merger will lessen competition in each Complaint county

3. Entry and efficiencies would be insufficient to restore the lost competition

Competition should be evaluated at the county level

- **Counties constitute relevant geographic markets**
  - ACA regulations
  - Insurers can offer different plans in different counties
  - Hypothetical monopolist test

Individual commercial insurance plans sold on the ACA exchanges constitute a relevant antitrust product market

1. Market realities
2. Actual customer substitution
3. Academic literature
4. Hypothetical monopolist tests

Market realities support market definition

- Subsidies make on-exchange uniquely appealing
  - **Only on-exchange purchases receive subsidies**
  - Advance Premium Tax Credit (“APTC”)
    - 85 percent of on-exchange customers receive APTC
    - APTC covers at least 10 percent of premium for nearly all who receive them
  - Additional cost-sharing subsidies available for low-income customers who buy silver plans on-exchange

Nevo Report, ¶¶ 277, 279–281

Actual customer substitution supports market definition

- Customers who switch are likely to stay on-exchange
  - HHS study finds that **at least 47 percent** stayed on-exchange
  - A Humana study finds that **67 percent** stayed on-exchange

- Figures likely underestimate substitution
  - HHS study cannot observe changes in eligibility
  - Both studies measure switching out of an insurer

Nevo Report, ¶¶ 297–299

Academic literature confirms market definition

- Customer substitution analyzed in academic literature suggests that a **hypothetical monopolist could profitably increase premiums**
  - HHS study (2015)
  - Tebaldi (2016)
  - Dafny et al. (2015)

Nevo Report, ¶¶ 168–177, 301–303

On-exchange plans pass the hypothetical monopolist test

- On-exchange plans pass single-product test
  - Allow the hypothetical monopolist to increase the price of *one* merging party individual commercial plan on an exchange
  - A **10 percent SSNIP would be profitable** for at least one plan in **100 percent of counties** for a wide range of margins and measures of customer substitution

Nevo Report, ¶¶ 168–177, Exhibit 32

Summary of opinions on individual commercial insurance

1. The relevant antitrust market is individual commercial health insurance plans sold on the ACA exchanges within each Complaint county

2. **The proposed merger will lessen competition in each Complaint county**

3. Entry and efficiencies would be insufficient to restore the lost competition

Multiple sources of evidence demonstrate that the proposed merger will lessen competition in each Complaint county

1. Concentration measures
2. Empirical analysis

Multiple sources of evidence demonstrate that the proposed merger will lessen competition in each Complaint county

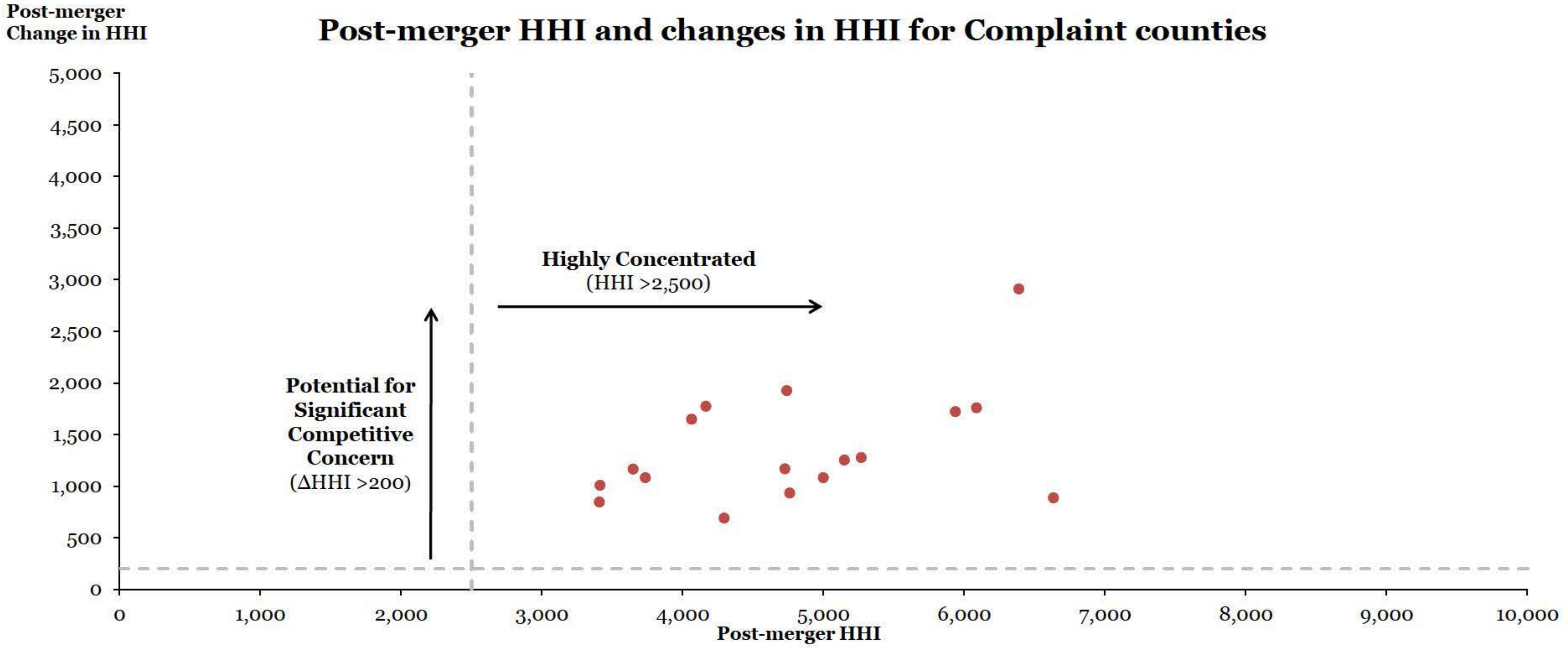
1. **Concentration measures:** The proposed merger would increase concentration in already highly concentrated markets
2. Empirical analysis

The proposed merger will increase concentration in already highly concentrated markets

- Concentration calculated using HHI
- Both Guidelines thresholds are met in all Complaint counties

Guidelines § 5.3

Both thresholds are met in the Complaint counties



Nevo Report, Exhibit 33

Multiple sources of evidence demonstrate that the proposed merger will lessen competition in each Complaint county

1. Concentration measures
2. **Empirical analysis:** The proposed merger will lessen competition and lead to increased prices
    1. Literature
    2. My estimates

Empirical analysis in literature shows that the proposed merger would lessen competition in the Complaint counties

- Empirical analysis in the literature
  - **HHS:** Premiums and premium growth decline when counties experience a net-gain in insurers
  - **Dafny et al.:** Second-lowest silver premiums increase when markets get more concentrated

Nevo Report, ¶¶ 317-322

My analysis shows that higher HHI leads to higher premiums

- A regression of price measures on HHI suggests that an increase in concentration leads to higher premiums

- Average second-lowest silver premiums in Complaint counties would **increase by 2.1 percent**

Nevo Report, Exhibits 34 and 35

Summary of opinions on individual commercial insurance

1. The relevant antitrust market is individual commercial health insurance plans sold on the ACA exchanges within each Complaint county

2. The proposed merger will lessen competition in each Complaint county

3. **Entry and efficiencies would be insufficient to restore the lost competition**

Entry will not be likely, timely, or sufficient

- **Barriers to entry** suggest that entry will not be likely, timely, or sufficient to offset the effects of the proposed merger
  1. Create a network of low-cost providers
  2. Hire personnel with appropriate experience
  3. Develop necessary information technology infrastructure for enrollment and billing

Nevo Report ¶¶ 327–334

Defendants' efficiency claims would be insufficient

- The proposed merger would increase monthly average second-lowest silver premiums by **2.1 percent**

- Even taken at face value, the efficiencies claimed by Defendants would lead to no more than **0.71 percent** of savings to consumers

Nevo Report, Exhibit 35; Nevo Reply Report, ¶¶ 138–140

Summary of opinions on individual commercial insurance

1. The relevant antitrust market is individual commercial health insurance plans sold on the ACA exchanges within each Complaint county

2. The proposed merger will lessen competition in each Complaint county

3. Entry and efficiencies would be insufficient to restore the lost competition

Overall Conclusions

- **Opinions:**

1. Substantial lessening of competition in markets for Medicare Advantage plans
2. Substantial lessening of competition in markets for Individual Commercial plans
3. Substantial harm to consumers – higher prices and lower benefits

Appendix

The technical disagreement is over instrumental variables

- **Correlation is not causation**
  - Any confounding effects that are not controlled for in a standard regression can bias the estimates
  - Instrumental variables is a method that allows us to deal with this bias

- Instrumental variables are about bringing in new information

- The new information needs to be
  - Unrelated to the confounding factors
  - Related to the variable of interest

Nevo Reply Report, ¶¶ 142–168

The instruments in my models are valid and vary within county

- The information I use: the identity of competitors
  - Common approach in the academic literature (Berry, Levinsohn, Pakes)
  - Used by the academic papers I discussed earlier
  - Identity of competitors is related to prices and within segment share
  - Identity has more information than just number of competitors

- I use information from the service area and not just the county
  - Using information from other areas is common (Hausman, Nevo)
  - Used by the academic papers I discussed earlier
  - Brings in more information
  - Guards against confounding factors at the county level

Nevo Reply Report, ¶¶ 142–168