

insurer (38% rather than 28%) and the combined share of the two largest insurers (61% rather than 45%).

This example conservatively assumes that the entirety of the “missing” enrollment resides with a single omitted insurer. If that enrollment were dispersed among many unmeasured insurers, the true HHI would be lower still. For example, if the unmeasured enrollment were divided among 10 equally sized firms, the true HHI would be 1,462 (near the middle of the “moderately concentrated” range, as defined by the DOJ and FTC).⁸⁸

Figure 6. Illustration of the magnitude of the potential bias due to unreliable and missing enrollment data

Insurer	True enrollment and shares		AMA reported enrollment and shares	
	Enrollment	Share	Enrollment	Share
A	2,800,000	28%	2,800,000	38%
B	1,700,000	17%	1,700,000	23%
C	1,400,000	14%	1,400,000	19%
D	1,000,000	10%	1,000,000	14%
E	500,000	5%	500,000	7%
F	2,600,000	26%		
TOTAL	10,000,000	100%	7,400,000	100%
HHI	2,070		2,546	

3.6.3. The changes in the HHIs reported by the AMA appear to be entirely unrelated to actual mergers among health plans

A comparison of the 2002 and 2008 versions of the AMA report, which contain data for 2001 and 2006, shows that the state-level HMO/PPO HHIs increased in many states and decreased in many other states (see Figure 7). Only three of the ten states with the largest HHI increase, as reported by the AMA, were affected by one of the health plan mergers identified in the AHA white paper.⁸⁹ These are North Carolina (United-MAMSI), Missouri (WellPoint-RightCHOICE),

⁸⁸ This example assumes that the unmeasured enrollment is attributable to insurers and TPAs that are not captured in the numbers that the AMA uses. If instead the AMA had an accurate census of the providers of insurance administration and coverage in a state and simply had inaccurate enrollment data, the bias could be smaller. However, this is not the most likely explanation. As discussed in the preceding section, the AMA’s data source does not include enrollment in self-funded HMOs and does not include enrollment in self-funded plans that are not administered by health insurance companies. This is the more likely explanation for the “missing enrollment.” (There is no obvious explanation for the “extra enrollment” present in five states.)

⁸⁹ The states affected by a health plan merger identified in the AHA white paper between 2001 and 2006 are as follows: Arizona, California, Colorado, Connecticut, Delaware, Georgia, Illinois, Iowa, Maryland, Missouri,

and Texas (WellPoint-MethodistCare). These three mergers are not plausible explanations for the increases in HHIs reported by the AMA in these three states:

- MAMSI was active in North Carolina but its membership was concentrated in the District of Columbia, Maryland, and Virginia.⁹⁰ (The AMA reports indicate that HHIs in Maryland and Virginia decreased from 2001 to 2006.) United’s acquisition of MAMSI is an unlikely explanation for the reported increase in the HHI in North Carolina.
- WellPoint had little if any presence in Missouri prior to its acquisition of RightCHOICE, so this acquisition does not explain the increase in the reported HHI in Missouri.⁹¹
- MethodistCare had roughly 70,000 enrollees in Texas; this is a small fraction of the commercially insured population of 12.3 million (as of 2006) in Texas.⁹² This acquisition cannot explain the increase in the reported HHI in Texas.

Moreover, two of the states affected by a health plan merger, Virginia and Maryland, are among the 10 states with the largest *decreases* in HHIs from 2001 to 2006.

The changes in the HHIs reported by the AMA appear to be entirely unrelated to actual mergers among health plans. This is another reason why these HHIs are unlikely to be reliable measures of concentration or market power.

The most likely explanation for the high degree of volatility in the HHIs that the AMA reports is that the underlying data are so plagued by measurement error as to be unreliable. If, however, the volatility in the shares and HHIs reported by the AMA is genuine, that would indicate that market share frequently shifts from one insurer to another—a pattern more consistent with strong competition than a lack of competition.

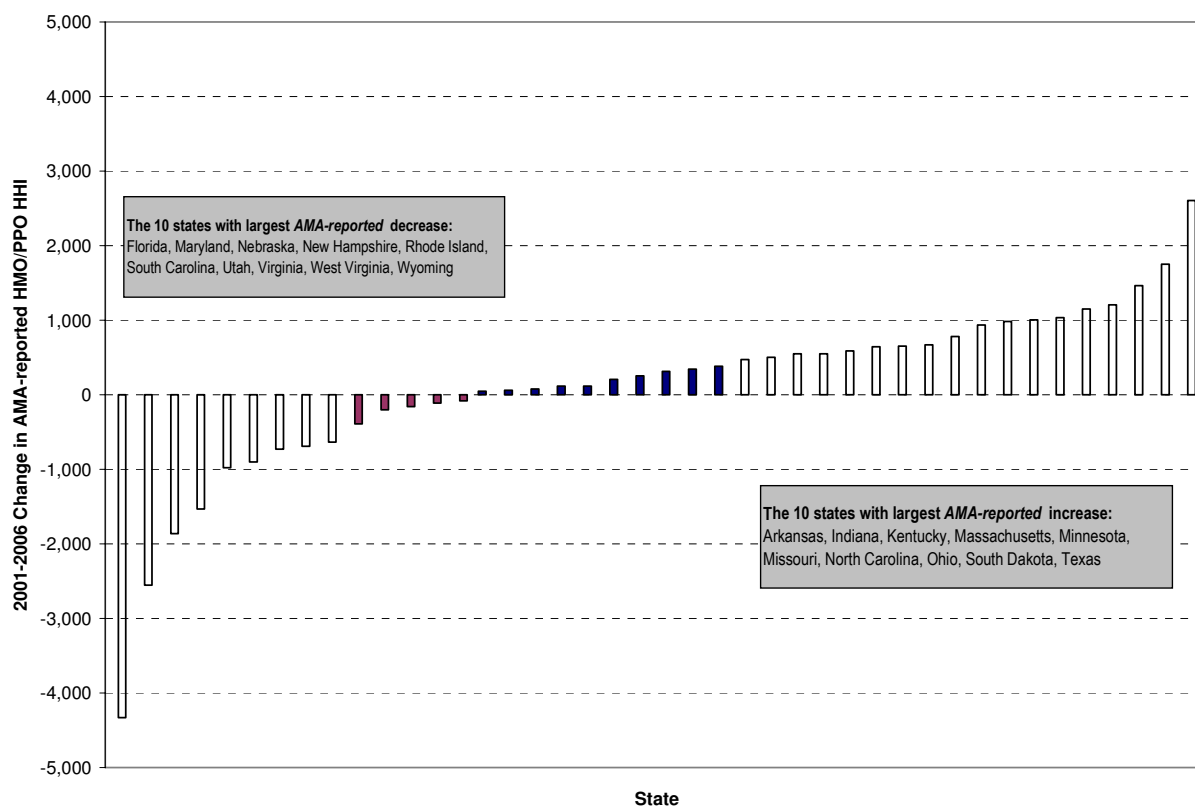
New Jersey, New Mexico, New York, North Carolina, Oklahoma, Tennessee, Texas, Virginia, West Virginia, and Wisconsin. See “AHA White Paper,” 6.

⁹⁰ The District of Columbia, Maryland, and Virginia accounted for 70% of MAMSI’s direct premiums in 2001, whereas North Carolina accounted for only 19%, or \$98 million, of MAMSI’s premiums. Maryland Insurance Administration, “MAMSI Life and Health Insurance Company Examination,” NAIC number 60321, December 31, 2001, 13, <http://www.mdinsurance.state.md.us/sa/documents/MAMSILife60321MD2001.pdf>.

⁹¹ Julie Jacob, “WellPoint Acquires its First Blues Plan in the Midwest,” *AMNews*, Nov. 5, 2001.

⁹² “On April 30, 2002, the Company completed its acquisition of MethodistCare, which served over 70,000 members in Houston, Texas, and surrounding areas at the time of acquisition. This acquisition was intended to enable UNICARE, WellPoint’s national operating unit, to expand its product line.” (WellPoint, Annual Report (Form 10-K), March 15, 2004, 4.) Note that HCSC, not WellPoint, is the BCBS plan in the state of Texas, so this acquisition brought WellPoint, through its unbranded UniCare product, into competition with HCSC in Texas.

Figure 7. The 2001–2006 changes in the AMA-reported HMO/PPO HHIs are not systematically related to health plan mergers



Source: AMA Report, 2008 Update; AMA Report, 2002 Update

3.6.4. The AMA’s concentration measures are consistently and significantly higher than the same concentration measures calculated using data from the National Association of Insurance Commissioners

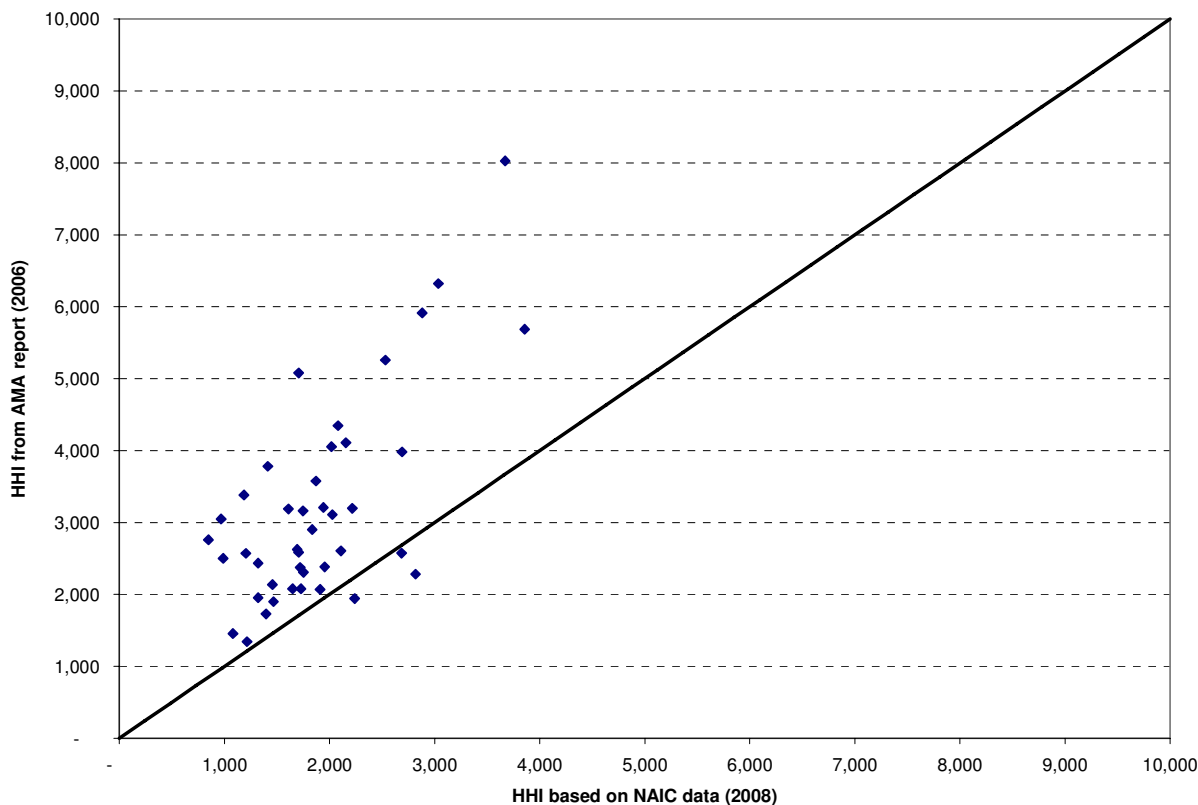
The National Association of Insurance Commissioners (NAIC) also collects state-level data on health plan market shares; NAIC data report total direct premiums rather than total enrollment.⁹³

⁹³ This comparison of AMA-reported HHIs and the HHIs implied by the NAIC data relies upon data from the NAIC’s 2008 *Market Share Reports for the top 125 Accident and Health Insurers*. Unfortunately, the NAIC provides minimal documentation of the sources and methods it uses to assemble its market share data and these data likely also have significant limitations. For example, the NAIC data report premium revenue for both accident and health insurers, and including non-health insurer revenue may bias health insurers’ shares downward (importantly, firms that are unambiguously health insurers typically account for roughly 90% of the premiums reported in the NAIC data and so this cannot account for the discrepancy between AMA-reported

A comparison of the HHIs reported in the most recent AMA report to the HHIs derived from the NAIC data shows that the AMA HHIs are consistently and significantly larger. These two HHIs are plotted in Figure 8. The 2006 AMA HMO/PPO HHI is on the vertical axis, and the HHI derived from the 2008 NAIC Market Share Report is on the horizontal axis. The diagonal line indicates points where the two HHI measures would be equal. As is plainly evident, the AMA's HHIs are consistently above the NAIC-derived HHIs, generally by a substantial amount. This is likely a reflection of the various omissions and biases in the AMA data, as discussed above. (If both data sources were plagued with measurement error but unbiased, the scatter would show a "cloud" centered along the diagonal line.) That the AMA HHI is systematically greater than the NAIC-derived HHI strongly suggests that, in addition to suffering from measurement error, the AMA data are likely also biased upward.

HHIs and NAIC-derived HHIs). The NAIC data likely also include health insurer revenue from activities other than the sale of commercial health insurance (e.g., pharmacy benefits, Medicare Supplemental insurance, and various specialty products), which could bias the insurer shares reported in the NAIC data upward. The point of reviewing the NAIC data is not to definitively identify state-level health insurer market shares but rather to highlight the sensitivity of measured concentration to underlying data quality.

Figure 8. The HHIs reported by the AMA are consistently and significantly larger than the HHIs derived from NAIC data



Source: AMA Report, 2008 Update; 2008 NAIC Market Share Report.

Even if the AMA data were reliable—and the review herein indicates they are not—computing an HHI is only the beginning, not the end, of an antitrust investigation. Indeed, the FTC and DOJ explicitly, and correctly, caution that market shares and concentration measures are only *starting points* in antitrust analysis of mergers. As noted in the DOJ and FTC *Horizontal Merger Guidelines*, “. . . market share and concentration data provide only the starting point for analyzing the competitive impact of a merger. Before determining whether to challenge a merger, the Agency also will assess the other market factors that pertain to competitive effects, as well as entry, efficiencies and failure.”⁹⁴ Simple examination of concentration indices alone cannot substitute for the intensive, case-specific investigation that the agencies routinely undertake when reviewing mergers.

⁹⁴ DOJ and FTC, *Horizontal Merger Guidelines*, § 2.0.

3.7. Increased payments to providers explain all or nearly all of the premium increases over the last decade

Just as airline fares invariably increase when the price of fuel increases, health plan premiums increase when provider reimbursement rates increase. Premiums also increase if providers shift from less expensive to more expensive treatments or if providers increase the volume or intensity of patient interactions (e.g., longer hospital stays, more extensive testing, or more office visits).⁹⁵ As shown in Figure 9, payments to hospitals and physicians have been increasing at rates that substantially exceed overall inflation and the growth rate of workers' earnings.⁹⁶ From 1999–2007, payments to hospitals grew at a compound annual growth rate (CAGR) of 8.7% and payments for physician and clinical services grew at an average annual rate of 8.0%. Overall, total payments by private insurers for all categories of Personal Health Care (i.e., expenditures by insurers on benefits) grew at an average rate of 7.9% per year.⁹⁷

⁹⁵ Depending on the circumstances, it could be entirely appropriate, medically and on a cost-benefit basis, for providers to select more costly technologies or to increase the volume of patient interactions. Regardless of the basis for any such changes, the result will be increased payments to providers and, therefore, higher insurance premiums.

⁹⁶ The AHA white paper implies, inaccurately, that the excess of premium growth over workers' earnings growth and inflation is the result of health plan mergers. ("During this period of increased concentration, health plan prices have increased well above the rate of inflation." "AHA White Paper," 22).

⁹⁷ CMS itemizes Personal Health Care (PHC) expenditures into the following categories: Hospitals, Physician and Clinical Services, Other Professional Services, Dental Services, Other Personal Health Care, Home Health Care, Nursing Home Care, Prescription Drugs, Other Non-durable Medical Products, and Durable Medical Equipment.

Figure 9. Payments by private health insurers to hospitals, physicians, and other providers

Year	Payments by private insurers (Benefits), by type of provider (\$ billion)			Total
	Hospitals	Physician / clinical	Other ^[*]	
1999	\$131.4	\$127.6	\$112.0	\$371.0
2000	\$144.0	\$136.7	\$122.1	\$402.8
2001	\$157.1	\$148.9	\$135.0	\$441.0
2002	\$172.1	\$163.1	\$147.1	\$482.3
2003	\$188.0	\$177.7	\$155.8	\$521.5
2004	\$202.8	\$191.1	\$166.7	\$560.6
2005	\$215.4	\$207.1	\$176.4	\$598.9
2006	\$236.1	\$221.5	\$180.3	\$637.9
2007	\$256.9	\$236.5	\$186.9	\$680.3
CAGR (1999 – 2007)	8.7%	8.0%	6.6%	7.9%

Source: 2007 National Health Expenditures Web Tables, Table 12.

[*] Includes expenditures on the following services and goods: Other Professional Services, Dental Services, Other Personal Health Care, Home Health Care, Nursing Home Care, Prescription Drugs, Other Non-durable Medical Products, and Durable Medical Equipment.

As noted at the outset of this section, payments to providers are a direct cost to health insurers (and self-funded employers) and increases in such payments will be reflected in increased premiums. Figure 10 provides a comparison of the growth rate of payments to providers to the growth rate of premiums.⁹⁸ Based on data on per enrollee premiums from the National Health Expenditures tables maintained by the Centers for Medicare and Medicaid Services (CMS), the growth rate of premiums is effectively identical to the growth rate of payments to providers of healthcare goods and services—premiums grew at an annual rate of 8.0% from 1999–2007, while payments by insurers for healthcare goods and services grew at a 7.9% annual rate. In other words, *approximately 99% of the increase in premiums over this period is explained by increases in payments for healthcare goods and services.* (From 1999–2007, hospitals, physicians, and clinical services accounted for approximately 70% of expenditures by insurers on healthcare goods and services.)

The AHA cites premium data from alternative sources, principally the Kaiser/HRET surveys.⁹⁹ While the Kaiser/HRET data show larger increases in premiums, there are several reasons to give more credence to the NHE figures. In particular, the Kaiser/HRET figures only present the prices for individual and family plans and so do not fully reflect changes in the mix of plans purchased or changes in family size.¹⁰⁰ Compared to the Kaiser/HRET data, the NHE data are also more

⁹⁸ Details of the analyses underlying the figures in this section are in Appendix C.

⁹⁹ “AHA White Paper,” 22.

¹⁰⁰ In the 2008 survey, Kaiser/HRET also changed the methodology it uses to compute the annual percentage premium increase. Kaiser/HRET 2008 Survey, 11, 20.

extensively sourced, researched, and validated.¹⁰¹ Notwithstanding these considerations, a comparison based on the Kaiser/HRET premium data shows that increased payments to providers account for 83% of the increase in premiums from 1999–2007.

Figure 10. Annual growth rates of (1) insurer payments to providers and (2) premiums

Year	Growth rate of insurer payments to providers ^[1]	Growth rate of premiums	
		Average premium (Kaiser / HRET) ^[2]	Per enrollee premiums (CMS) ^[3]
2000	8.6%	11.8%	8.0%
2001	9.5%	9.3%	10.0%
2002	9.4%	13.9%	11.2%
2003	8.1%	11.7%	10.1%
2004	7.5%	9.5%	6.4%
2005	6.8%	9.1%	6.7%
2006	6.5%	5.5%	5.7%
2007	6.6%	5.5%	5.8%
1999–2007 CAGR	7.9%	9.5%	8.0%

Notes:

[1] 2007 National Health Expenditures Web Tables, Table 12. These annual growth rates reflect increases in expenditures by private insurers on “Personal Health Care,” as defined by CMS.

[2] Kaiser/HRET 2008 Survey, Ex. 1.9. Growth rates are computed as a weighted average of the growth rates in individual and family premiums.

[3] 2007 National Health Expenditures Table 13.

3.8. The public hearings called for by the AHA have already occurred, and repeating them would serve little purpose

In 2002 and 2003, the FTC and DOJ held a series of workshops on a wide array of antitrust topics related to healthcare; these workshops culminated in the release of the lengthy and detailed report, *Improving Health Care: A Dose of Competition*.¹⁰² Two chapters in that report focus on the insurance industry.¹⁰³ The report and the underlying hearings specifically addressed, among other issues, the very topics highlighted in the AHA white paper: competitive effects in markets for the sale of commercial health insurance and competitive effects in markets for the purchase of provider services.¹⁰⁴

¹⁰¹ See Appendix C.

¹⁰² *Dose of Competition*, note 14.

¹⁰³ “Industry Snapshot: Insurance and Other Third Party Payment Programs,” *Dose of Competition*, ch. 5; “Competition Law: Insurers,” *Dose of Competition*, ch. 6.

¹⁰⁴ *Dose of Competition*, ch. 6, section II addresses sell-side effects; section III addresses buy-side effects.

With respect to the creation of market power in the market for the purchase of provider services (the primary focus of the AHA white paper), the FTC and DOJ *explicitly* considered the issue of “buyer power” or monopsony harm. Their analysis and conclusions confirm the agencies’ vigilance in monitoring markets for the exercise of monopsony power in their standard case-specific and fact-intensive manner.¹⁰⁵

The Hearings confirmed two important, interrelated points with respect to monopsony power in the health insurance sector. First, under the right circumstances, monopsony power can be created or exercised in this [health insurance] industry. The Agencies consequently need to remain vigilant in monitoring the market for such situations. Second, properly ascertaining whether monopsony power has in fact been created or exercised in this industry typically will involve a case-specific, factually-intense assessment. As panelists pointed out, “‘low prices’ by themselves are not an indication or certainly not proof of monopsony power,” and correctly determining the presence of monopsony power is “tricky.” (Citations omitted.)

Then, from 2004–2006, the FTC and DOJ held additional hearings to address whether the *Guidelines* framework was “leading to appropriate enforcement decisions on proposed horizontal mergers” and “providing the antitrust bar and the business community with reasonably clear guidance.”¹⁰⁶ This review included but was not limited to the efficacy of enforcement policy in the healthcare industry. The FTC and DOJ concluded that the *Guidelines* framework was “effective in yielding the right results in individual cases and in providing advice to parties considering a merger.”¹⁰⁷

As described in section 3.2, and consistent with the guidance in the *Dose of Competition* report as well as the conclusions reached in the “Guidelines Commentary,” DOJ has in fact given serious consideration to monopsony theories of harm, has conducted “case-specific, factually-intense” investigations, and has sought divestiture on monopsony grounds when it concluded that a proposed merger could lessen competition.¹⁰⁸

¹⁰⁵ *Dose of Competition*, ch. 6, section III.D.

¹⁰⁶ “Guidelines Commentary,” v.

¹⁰⁷ *Id.*

¹⁰⁸ Antitrust analysis of monopsony issues invokes no unique analytic framework or analysis. Instead, as described in § 0.1 of the *Horizontal Merger Guidelines*, “[m]arket power also encompasses the ability of a single buyer (a ‘monopsonist’), a coordinating group of buyers, or a single buyer, not a monopsonist, to depress the price paid for a product to a level that is below the competitive price and thereby depress output. The exercise of market power by buyers (‘monopsony power’) has adverse effects comparable to those associated with the exercise of market power by sellers. **In order to assess potential monopsony concerns, the Agency will apply an analytical framework analogous to the framework of these Guidelines.**” (Emphasis added.)

4. The FTC undertook its hospital merger retrospective based on the antitrust history of hospital mergers and the extensive corresponding economic research

A health plan merger retrospective is, at best, unjustified and, at worst, a diversion of policy and agency resources and attention. In support of its request for retrospective study of insurer mergers, the AHA references the hospital merger retrospective launched by the FTC in 2002.¹⁰⁹ However, the absence of evidence of anticompetitive effects resulting from DOJ either not challenging or not seeking sufficient remedy in any particular health plan merger stands in marked contrast to two key factors that ultimately led the FTC to undertake its hospital merger retrospective: (1) the unique antitrust history of hospital mergers and (2) the substantial body of economic research that suggests that hospital consolidation had resulted in anticompetitive effects. No parallel history or body of evidence exists that suggests that anticompetitive effects resulted from health plan mergers.

4.1. A significant legal history provided a foundation for the hospital merger retrospective

The hospital merger retrospective followed on the heels of an unusual case history that featured six consecutive failed attempts by the FTC or DOJ to block a hospital merger and a seventh failed attempt by the state of California.¹¹⁰ In six of these cases, the relevant geographic market in which the merging hospitals competed was a hotly debated issue. The merging hospitals prevailed in these six cases by arguing, on the basis of analyses of patient flows, that the relevant geographic market was large.¹¹¹

In these cases, both sides made reference to the market definition framework specified in the *Horizontal Merger Guidelines*:¹¹²

¹⁰⁹ FTC, “Federal Trade Commission announces formation of merger litigation task force,” news release, August 28, 2002, <http://www.ftc.gov/opa/2002/08/mergerlitigation.shtm>.

¹¹⁰ *Ukiah Adventist Hosp. v. FTC*, No. 93-70387 (9th Cir. May 18, 1994); *FTC v. Freeman Hosp.*, 911 F.Supp. 1213 (W.D. MO. 1995), *aff’d*, 69 F.3d 260 (8th Cir. 1995); *United States v. Mercy Health Services*, 902 F.Supp. 968 (N.D. Iowa 1995), *vacated as moot*, 107 F.3d 632 (8th Cir. 1997); *FTC v. Butterworth Health Corp.*, 946 F.Supp. 1285 (W.D. Mich. 1996), *aff’d per curiam*, No. 96-2440 (6th Cir. July 8, 1997) (unpublished); *United States v. Long Island Jewish Med. Ctr.*, 983 F.Supp. 121 (E.D.N.Y. 1997); *FTC v. Tenet Healthcare Corp.*, 17 F.Supp. 2d 937 (E.D. Mo. 1998), *rev’d*, 186 F.3d 1045 (8th Cir. 1999); *California v. Sutter Health Sys.*, 84 F. Supp. 2d 1057 (N.D. Cal.), *aff’d mem.*, 2000-1 Trade Cas. (CCH) U 87,665 (9th Cir. 2000), *revised*, 130 F. Supp. 2d 1109 (N.D. Cal. 2001).

¹¹¹ In *FTC v. Butterworth Health Corp.*, the dispositive issue was not geographic market definition but rather the merging hospitals’ nonprofit status.

¹¹² DOJ and FTC, *Horizontal Merger Guidelines* (1992, rev. 1997), § 1.0.

A market is defined as a product or group of products and a geographic area in which those products are produced or sold such that a hypothetical profit-maximizing firm, not subject to price regulation, that was the only present and future producer or seller of those products in that area likely would impose at least a “small but significant and nontransitory” increase in price [SSNIP], assuming the terms of sale of all other products are held constant. A relevant market is a group of products and a geographic area that is no bigger than necessary to satisfy this test.

In practice, merging hospitals relied either on Elzinga/Hogarty analysis or on Critical Loss analysis to approximate, rather than formally implement, the “SSNIP” or “hypothetical monopolist” test described above.¹¹³ Numerous economists, however, have questioned the application of both of these methods of analysis to hospital and other mergers.¹¹⁴ The agencies' belief or suspicion that, in a string of litigated cases, the courts had accepted invalid and overly large geographic markets and thereby allowed anticompetitive hospital mergers to proceed constituted one of the bases for the hospital merger retrospective.

4.2. Hospital ownership is very concentrated in many metropolitan statistical areas

Evidence of increased concentration, as measured by indices such as the Hirschman-Herfindahl Index (HHI), is not in itself enough to draw conclusions of competitive harm. Such evidence can, however, be a useful starting point. A 2006 study, sponsored by the Robert Wood Johnson Foundation (RWJF) and performed by economists Robert Town and William Vogt, summarized the extent of hospital consolidation during the 1990s.¹¹⁵ They report that, on average, the concentration of hospital ownership within metropolitan statistical areas (MSAs) increased by a substantial amount during the 1990s.¹¹⁶

¹¹³ In a number of these cases, the government also used Elzinga/Hogarty or Critical Loss analyses but differed with hospitals' experts over the appropriate way to implement the analysis or the correct thresholds to apply.

¹¹⁴ See G. Werden, “The Limited Relevance of Patient Migration Data in Market Delineation for Hospital Merger Cases,” *Journal of Health Economics* 8, no. 4 (1990): 363–76; K. Danger and H. Frech, “Critical Thinking About ‘Critical Loss’ in Antitrust,” *Antitrust Bulletin* 46, no. 2 (2001): 339–355; J. Langenfeld and W. Li, “Critical Loss Analysis in Evaluating Mergers,” *Antitrust Bulletin* 46, no. 2 (2001): 299–337; C. Capps, D. Dranove, S. Greenstein, and M. Satterthwaite, “Antitrust Policy and Hospital Mergers: Recommendations for a New Approach,” *Antitrust Bulletin* (Winter 2002): 677–714; M. Katz and C. Shapiro, “Critical Loss: Let’s Tell the Whole Story,” *Antitrust* 17, no. 2 (2003): 49–56; and D. O’Brien and A. Wickelgren “A Critical Analysis of Critical Loss,” *Antitrust Law Journal* 71, no. 1 (2004): 161–84.

¹¹⁵ W. Vogt and R. Town, “How Has Hospital Consolidation Affected the Price and Quality of Hospital Care?” *RWJF Research Synthesis Report No. 9*, February 2006 (*RWJF Synthesis Report*); and C. Williams, W. Vogt, and R. Town, “How Has Hospital Consolidation Affected the Price and Quality of Hospital Care?” *RWJF Policy Brief*, No. 9, February, 2006 (*RWJF Policy Brief*).

¹¹⁶ *RWJF Synthesis Report*, 1.

Over the 1990s the hospital industry underwent a wave of consolidation that transformed the inpatient hospital market place. By the mid-1990s, hospital merger and acquisition activity was nine times its level at the start of the decade In 1990, the typical person living in a metropolitan statistical area (MSA) faced a concentrated hospital market with an HHI of 1,576. By 2003, however, the typical MSA resident faced a hospital market with an HHI of 2,323. This change is equivalent to a reduction from six to four competing local hospital systems. (Citations omitted.)

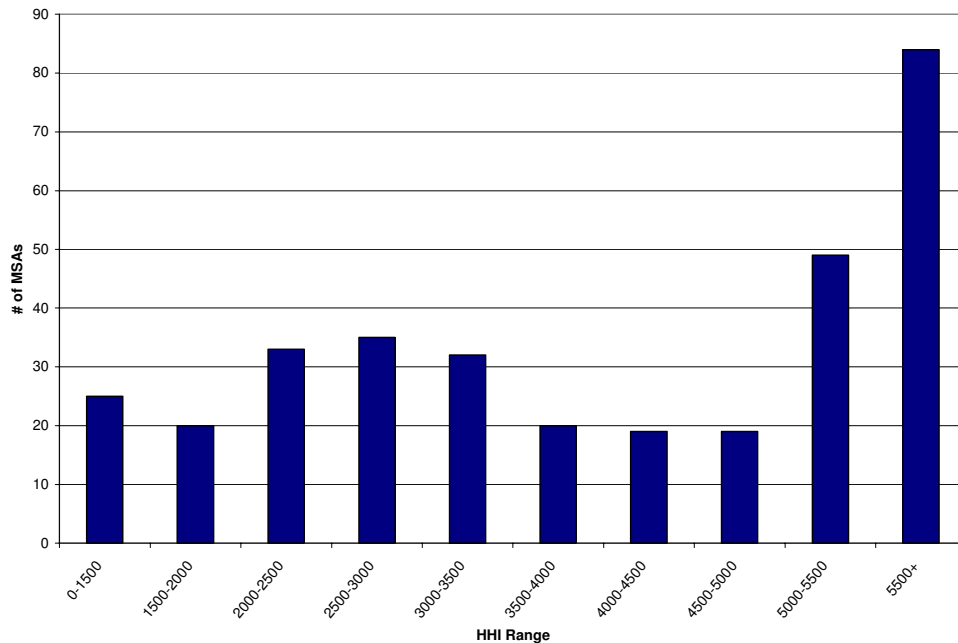
More recent data verify that hospital ownership in most MSAs is highly concentrated.¹¹⁷ Figure 11 shows that in 2006, the HHI exceeded 2,000 in a majority of MSAs. Moreover, 75% of MSAs had an HHI over 2,500, and 50% had an HHI over 4,000 in 2006.¹¹⁸ (The relevant “antitrust” geographic market in which hospitals compete is likely to be smaller than an MSA in many cases. However, for the purpose of summarizing the scope of hospital ownership consolidation at a general level on a nationwide basis, the MSA is a reasonable unit of analysis.¹¹⁹)

¹¹⁷ While the data relied upon in the AMA’s study of insurer concentration are subject to significant limitations (see section 3.6), data for reliably measuring hospital system shares within specific geographic areas are readily available from sources such as the American Hospital Association’s *Annual Survey of Hospitals* and various state hospital discharge databases.

¹¹⁸ The HHI is computed on the basis of acute care inpatient hospitals only (including children’s hospitals and short-term specialty hospitals) and on the basis of shares of beds.

¹¹⁹ To the extent that the MSA is larger than the relevant geographic market, measuring shares at the MSA-level will tend to understate the degree of hospital ownership concentration.

Figure 11. Distribution of hospital concentration within MSAs, 2006



Source: 2006 American Hospital Association Annual Survey of Hospitals (the HHI is measured based on shares of beds).

4.3. Economic analyses of hospital competition and hospital mergers showing significant price increases provided a key foundation for the hospital merger retrospective

Over the course of the 1990s, many economists analyzed the relationship between hospital concentration and hospital pricing. In their 2006 RWJF study, Town and Vogt also surveyed the economic research into the effects of hospital consolidation on the price, quality, and cost of hospital care.¹²⁰ In total, they reviewed 87 distinct studies. They summarize their conclusions regarding the price effects of hospital consolidation as follows:¹²¹

The balance of the evidence indicates that the 1990–2003 consolidation in metropolitan areas raised hospital prices by at least five percent and likely by significantly more.

Of the 13 surveyed papers that analyzed market-level concentration and pricing, 10 found that prices were higher in areas where hospital ownership is more concentrated.¹²² Some of the other

¹²⁰ *RWJF Synthesis Report; RWJF Policy Brief.*

¹²¹ *RWJF Synthesis Report*, 11.

¹²² *Id.* at 6. The economists who conducted these studies were generally not analyzing “markets” in the antitrust

surveyed papers were based on “event studies” (e.g., before-and-after comparisons of price changes at merging hospitals relative to some benchmark change, such as price changes at nonmerging hospitals). Town and Vogt summarize these studies as follows: “The best event studies find that, relative to controls, hospital prices rose 10 percent and more after mergers.”¹²³

Following the FTC and DOJ’s 2002 and 2003 healthcare hearings, which covered a wide array of antitrust topics (including both insurer and hospital mergers), the agencies reached a very similar conclusion:¹²⁴

Most studies of the relationship between competition and hospital prices have found that high hospital concentration is associated with increased prices, regardless of whether the hospitals are for-profit or nonprofit.

Finally, Town and Vogt also summarized the literature on the quality and cost effects of hospital consolidation:

- “Although the results of the literature are mixed, a narrow balance of the evidence and the evidence from the best studies indicates that hospital consolidation more likely decreases quality than increases it.”¹²⁵
- “Although the results of the literature are mixed, the balance of the evidence indicates that hospital facility consolidation produces cost savings for the consolidated hospitals.”¹²⁶

In general, the economic literature reviewed by Town and Vogt shows that estimated price effects that result from hospital mergers that create or enhance market power are greater than the estimated cost savings from those mergers that do result in cost savings.

The compelling empirical evidence that many hospital mergers resulted in significant price increases called into question the methodologies—Elzinga/Hogarty and Critical Loss—relied upon by the courts in the 1990s.^{127, 128} In a complementary line of research, economists also

sense but were focusing on studying concentrations in geographic areas such as counties or healthcare referral regions.

¹²³ *RWJF Synthesis Report*, 6.

¹²⁴ *Dose of Competition*, Executive Summary.

¹²⁵ *RWJF Synthesis Report*, 11.

¹²⁶ *Id.* “Hospital facility consolidation” refers to instances in which merging hospitals combine licensing and integrate operations. Town and Vogt report that simple ownership consolidation without facility consolidation results in “modest cost savings.” *RWJF Policy Brief*, 1.

¹²⁷ For specific critiques, see C. Capps, D. Dranove, S. Greenstein, and M. Satterthwaite, “Antitrust Policy and Hospital Mergers: Recommendations for a New Approach,” *Antitrust Bulletin* (Winter 2002): 677–714.

¹²⁸ Eventually, even Kenneth Elzinga, cocreator of the Elzinga/Hogarty methodology, would testify that

began developing and empirically testing models of competition specifically designed to match the key economic characteristics of hospital markets, particularly selective contracting. These models allowed the researchers to formally implement the hypothetical monopolist test described in the *Horizontal Merger Guidelines*. Each analysis concluded that the relevant geographic markets in which hospitals compete are much smaller than the markets adopted by the courts in the 1990s.¹²⁹

5. No retrospective of health plan mergers or unique analytical framework for assessing health plan mergers is necessary

By the time the FTC undertook its hospital merger retrospective, an extensive and compelling body of economic research had emerged that showed that many hospital mergers had likely resulted in increased prices without offsetting efficiencies. In contrast to this history, the AHA offers no specific evidence of anticompetitive effects resulting from any health plan merger. Absent such evidence, launching new hearings or launching a retrospective analysis of health plan mergers would be a highly questionable use of DOJ and FTC resources.

Additionally, the analytic framework outlined in the *Horizontal Merger Guidelines* has already been revisited. In 2004, the agencies held a merger enforcement workshop and, building upon that workshop, issued their formal commentary on the *Horizontal Merger Guidelines* in 2006. The FTC and DOJ summarize the conclusions from that workshop and the subsequent commentary as follows:¹³⁰

Workshop participants generally agreed that the analytical framework set out in the Guidelines is effective in yielding the right results in individual cases and in

Elzinga/Hogarty analysis is inappropriate in the context of defining geographic antitrust markets for hospitals:

[T]here is this silent majority, and if patient flow data show that a non trivial number of people travel to a distant hospital, the problem in the Elzinga-Hogarty Test, using patient flow data, is that one might assume from it—assume incorrectly—that the existence of those traveling patients protects and disciplines the prices paid by the silent majority who don’t travel, and these economists, Greg Werden and others and myself, are persuaded that in that regard, the Elzinga-Hogarty Test, using patient flow data, is misleading in trying to establish the contours of a relevant geographic market area.

Transcript of Record at 2,391, In re Evanston Northwestern Healthcare Corp., No. 9315, (Fed. Trade Comm’n Feb. 11, 2005) (testimony of Ken Elzinga).

¹²⁹ R. Town and G. Vistnes, “Hospital Competition in HMO Networks,” *Journal of Health Economics* 20, no. 5 (2001): 733–53; C. Capps, D. Dranove, and M. Satterthwaite, “Competition and Market Power in Option Demand Markets,” *RAND Journal of Economics* 34, 4 (2003): 737–63; M. Gaynor and W. Vogt, “Competition Among Hospitals,” *RAND Journal of Economics* 34, 4 (2003): 764–85.

¹³⁰ “Guidelines Commentary,” v. The agencies also revisited their analytic framework for assessing mergers in the healthcare arena in a set of hearings in 2002 and 2003 that culminated in the release of the lengthy and detailed report, *Improving Health Care: A Dose of Competition* (see *supra* note 14 and section 3.8).

providing advice to parties considering a merger. Thus, the Agencies concluded that a revamping of the Guidelines is neither needed nor widely desired at this time. Rather, the Guidelines' analytic framework has proved both robust and sufficiently flexible to allow the Agencies properly to account for the particular facts presented in each merger investigation.

Even after losing six consecutive hospital merger cases between them and being informed by the economic research on the price effects of hospital mergers, the agencies did not recommend or adopt unique standards, analytic frameworks, or special presumptions for assessing hospital mergers. Instead, as the "Guidelines Commentary" makes clear, the agencies apply the standard framework in a fact-specific fashion that is tied to the evolving structure of the hospital industry.¹³¹ This approach is equally appropriate and sufficient for antitrust analysis of health plan mergers.¹³²

In summary, the American Hospital Association's various requests for reinvigorated antitrust enforcement of health plan mergers are unwarranted and are not supported by the arguments in the AHA white paper. Despite the claims in that white paper, DOJ enforcement of health plan mergers is consistent, robust, and vigorous, and appropriately follows the time-tested analytic framework prescribed by the FTC and DOJ *Horizontal Merger Guidelines*.

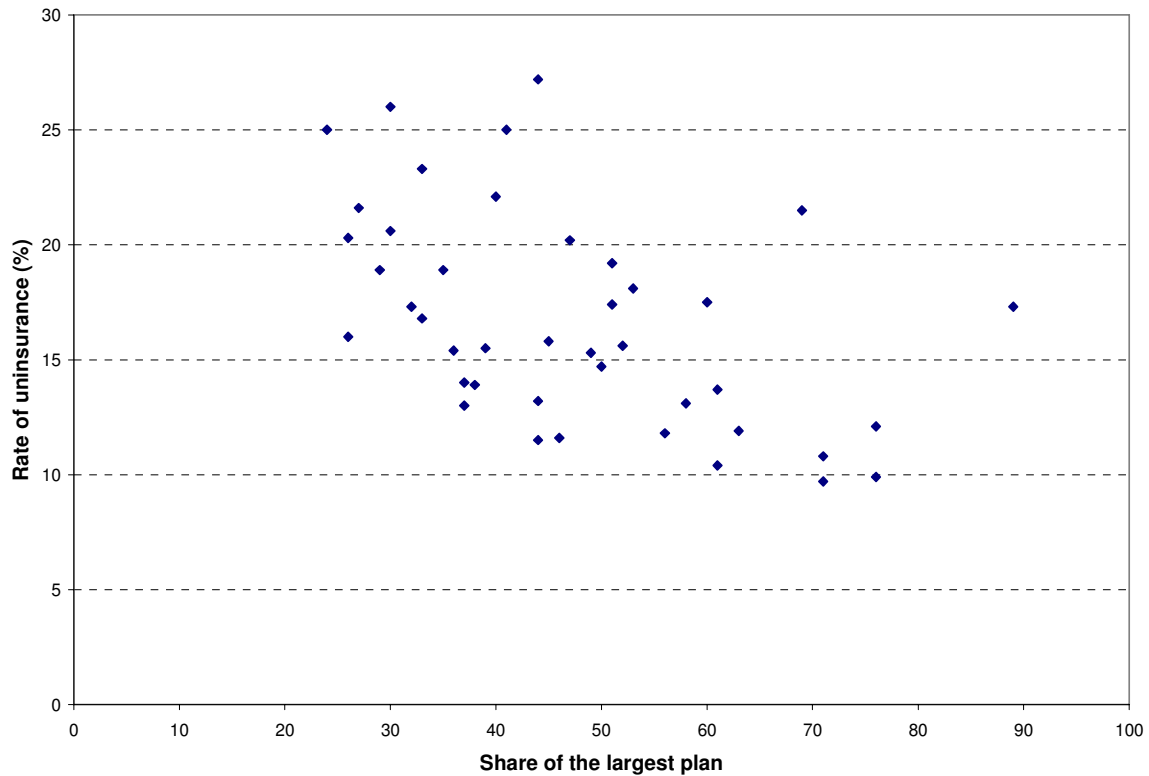
¹³¹ "The Agencies have used bargaining theory to analyze the effects of hospital mergers on the prices they charge managed care organizations" ("Guidelines Commentary," 34). The "Commentary" goes on to describe one hospital case, a joint venture, that the FTC did not oppose and one hospital merger case that the FTC did oppose.

¹³² The FTC and DOJ explicitly considered whether the *Guidelines* were effective in analyzing both monopoly and monopsony harm: "The Agencies, therefore, consider the possibility that a merger would produce a significant anticompetitive effect by eliminating competition between the merging firms in a relevant market in which they compete for an input. By eliminating an important alternative for input suppliers, a merger can lessen competition for an input significantly." "Guidelines Commentary," 36.

Appendix A. Sensitivity analysis of the negative relationship between uninsurance rates and AMA-reported health plan concentration

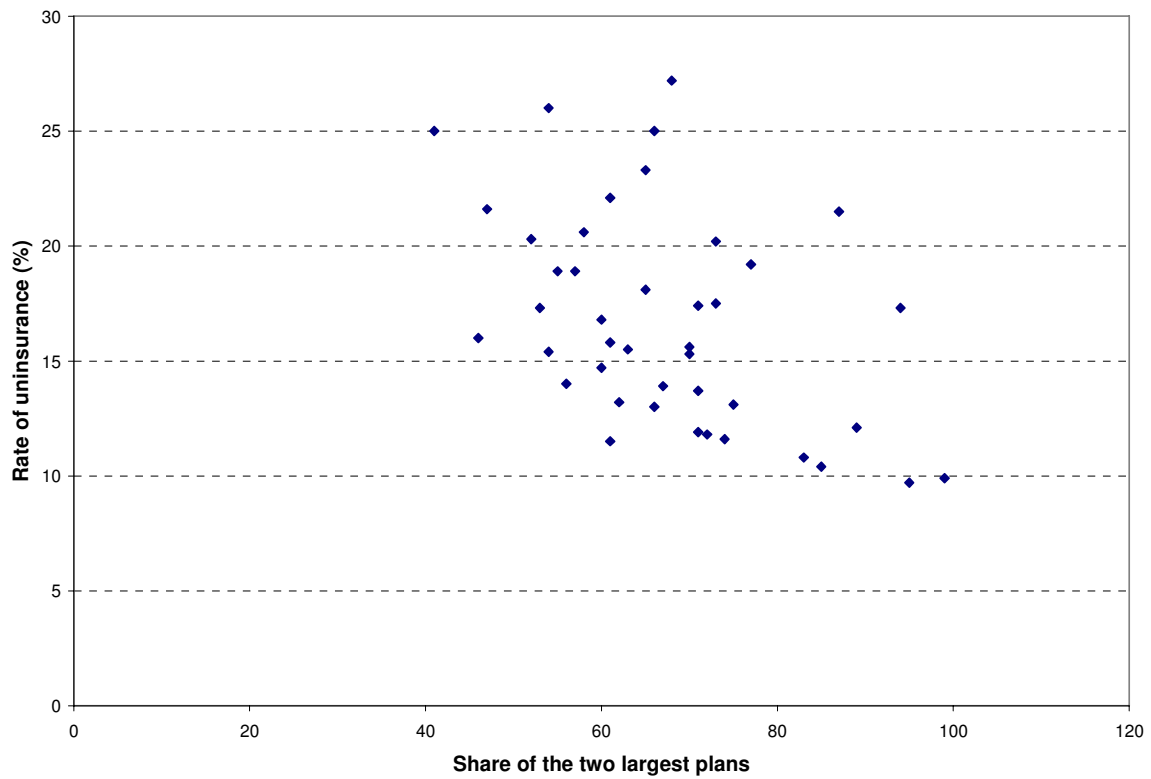
The absence of a positive relationship between concentration and rates of uninsurance is robust across time, concentration measures, and data sources. For example, the AMA also reports statewide market shares for the largest and second largest insurer in each state. As shown in Figure 12 and Figure 13, markets with higher AMA-reported “largest insurer” and “largest two insurers” shares also generally have lower rates of uninsurance, not higher.

Figure 12. State-level uninsurance rates and the AMA-reported share of the largest plan, 2006



Source: AMA, *Competition in Health Insurance, 2008 update* (containing data for 2006); 2006 Current Population Survey (CPS), Table HIA-6.

Figure 13. State-level uninsurance rates and the AMA-reported combined share of the two largest plans, 2006

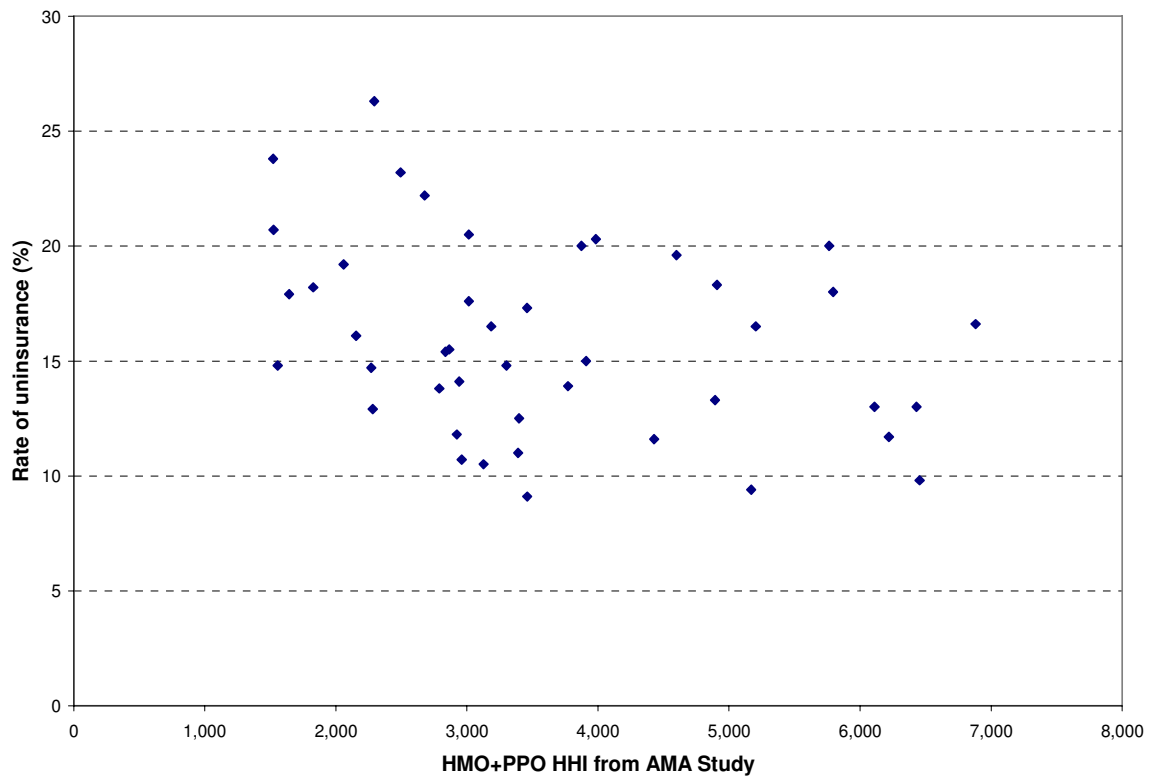


Source: AMA, *Competition in Health Insurance, 2008 update* (containing data for 2006); 2006 Current Population Survey (CPS), Table HIA-6.

As shown in Figure 14, the negative relationship between the AMA-reported HMO+PPO HHI and uninsurance rates also held in 2005.¹³³

¹³³ The 2008 AMA report is based on HLIS data for 2006, and the 2007 AMA report is based on HLIS data for 2005.

Figure 14. State-level uninsurance rates and the AMA-reported HMO+PPO HHI, 2005



Source: AMA, *Competition in Health Insurance, 2007 update* (containing data for 2005); 2006 Current Population Survey (CPS), Table HIA-6.

Other factors, such as economic conditions, could cause some states to have both high levels of uninsurance and fewer health plans. As the regression in Figure 15 shows, controlling for income and the unemployment rate does not change the basic, negative relationship between the rate of uninsurance and the HHI measure reported by the AMA (i.e., the negative and statistically significant coefficient on “HMO/PPO HHI” indicates that, on average, rates of uninsurance are lower in states where AMA-reported concentration is higher).¹³⁴

¹³⁴ The relationship between the AMA’s HHI measure and uninsurance is statistically insignificant when state fixed effects are included. This indicates that *changes in the AMA’s HHI* are not statistically correlated with *changes in the rate of uninsurance*.

Figure 15. Regression of state-level uninsurance rates on AMA-reported HHI and control variables, 2005 and 2006

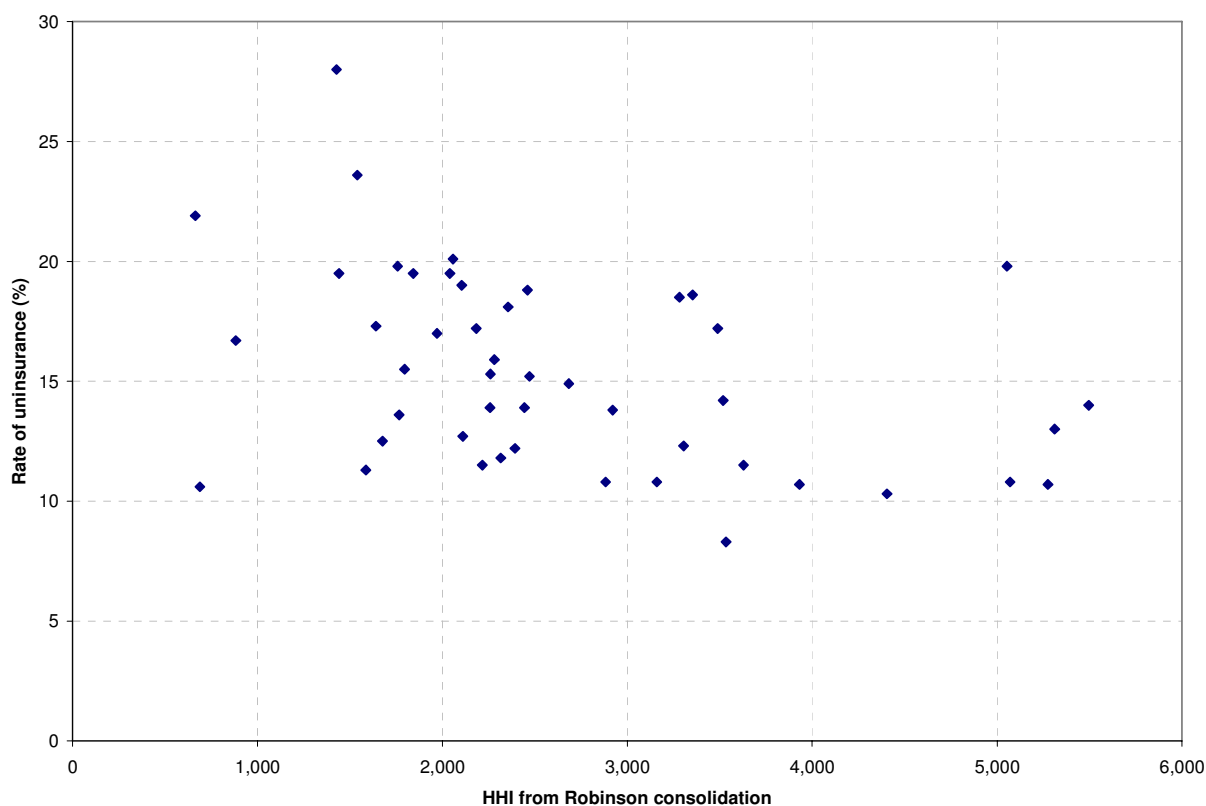
Variable	Coefficient	Std. Error	t Statistic	Prob.
HMO/PPO HHI	-0.00133	0.00027	-4.86000	0.00000
Income	-0.00029	0.00006	-5.14000	0.00000
Unemployment Rate	-0.36707	0.42780	-0.86000	0.39300
2006 Dummy	0.42511	0.81114	0.52000	0.60200
Constant	36.19234	4.21225	8.59000	0.00000
Adjusted R-squared	0.3303			
Number of observations	86			

Source: AMA, *Competition in Health Insurance, 2007 Update and 2008 Update*; 2006 Current Population Survey (CPS), Table HIA-6; U.S. Census Bureau: 2005 Median Household Income by State; and U.S. Bureau of Labor Statistics: 2005 Unemployment rate data.

Finally, the AMA also cites insurer market share and HHI data from a study by Robinson (2004).¹³⁵ The same negative relationship between uninsurance and the measured HHI holds based on data from that study. See Figure 16.

¹³⁵ “AHA White Paper,” 19, citing James C. Robinson, “Consolidation and the Transformation of Competition in Health Insurance,” *Health Affairs* 23, no. 6 (2004): 11–24.

Figure 16. State-level uninsurance rates and the HHI reported in Robinson (2004)



Source: Robinson (2004); 2006 Current Population Survey (CPS), Table HIA-6.

Appendix B. There is no relationship between private health care spending and the AMA-reported measure of concentration

The AHA claims that the high health plan enrollment shares alleged by the AMA imply that health plans also have monopsony power in markets for the purchase of provider services.¹³⁶ This claim is unsupported for two reasons. First, the predicate that the AMA-reported HHIs constitute evidence of health plan market power (in markets for the sale of health insurance) is inconsistent with the analysis showing that rates of uninsurance are generally *lower*, not higher, in states with higher AMA-reported HHIs.¹³⁷ Second, available data on state-level private

¹³⁶ “AHA White Paper,” 27.

¹³⁷ If higher AMA-reported HHIs indicate that health plans have and exercise market power in many states, the price of commercial insurance should be higher—and insurance coverage rates lower—in more concentrated states. The data clearly reject this hypothesis. See section 3.5.

healthcare spending are also inconsistent with the AHA's premise that "most health insurers have preexisting monopsony power."¹³⁸

In particular, a monopsonist will purchase a lower quantity of the monopsonized inputs in order to reduce the price of those inputs.¹³⁹ Because a monopsonist purchases *fewer* inputs at *lower* prices, total expenditures on inputs should be lower in a monopsonized market than in a competitive market.¹⁴⁰ Therefore, if the AMA measures of concentration, which the AHA relies upon, are valid indicators of the presence and exercise of monopsony power then private healthcare spending should be lower in those states that the AMA report alleges are most concentrated.

As shown in Figure 17, however, there is in fact no meaningful relationship between private healthcare spending and the AMA's measure of concentration. The vertical axis in Figure 17 contains 2004 state-level private healthcare spending per person under-65, and the horizontal axis contains the 2005 HMO+PPO HHI reported in the 2007 AMA study.¹⁴¹ Contrary to the hypothesis of monopsony power, per capita private healthcare expenditures are not systematically lower in states with higher AMA-reported HHIs. In fact, there is a visually apparent modestly positive (not negative) relationship between private healthcare spending and the AMA-reported HHI, though that relationship is statistically insignificant ($t = 0.69$).¹⁴²

¹³⁸ "AHA White Paper," 27.

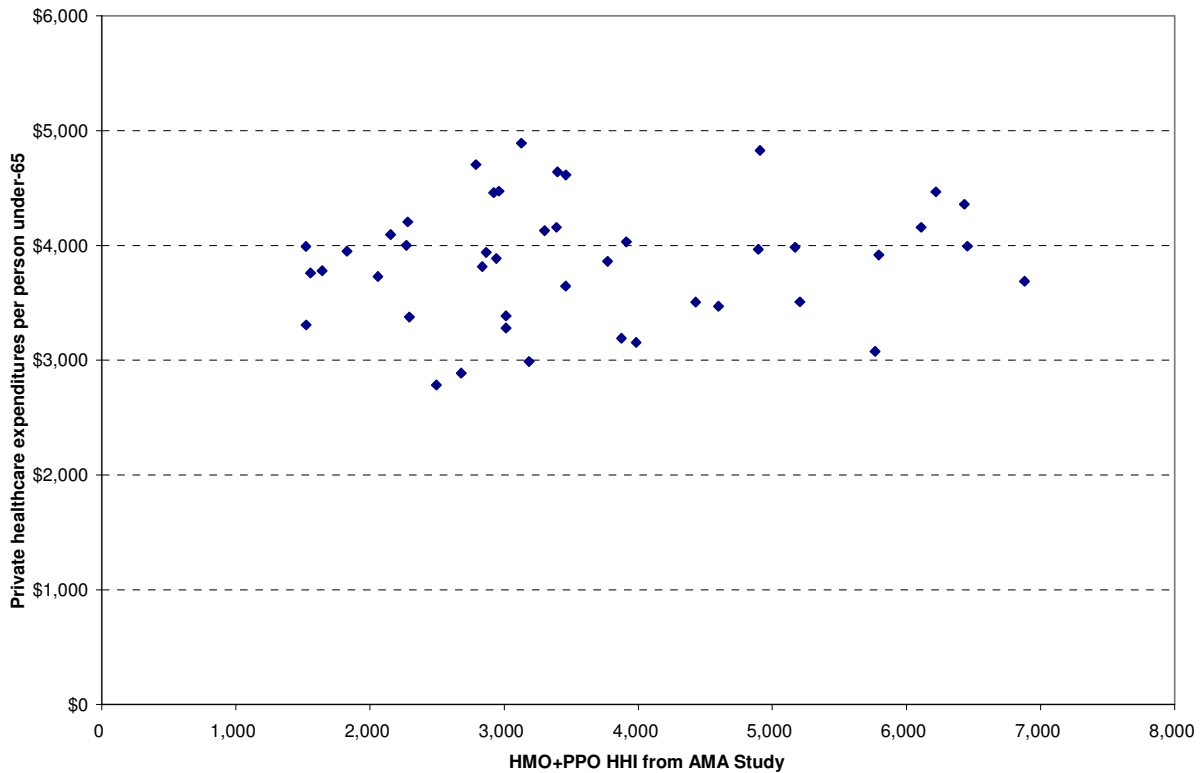
¹³⁹ This is simply the mirror image of monopoly: where a monopolist reduces its output in order to increase the sale price relative to the competitive level, a monopsonist reduces its purchases of inputs in order to reduce the purchase price relative to the competitive level. See also, *supra* note 41.

¹⁴⁰ Even though expenditures on inputs are reduced, genuine exercise of monopsony power is inefficient. As explained in the *Dose of Competition* report, "[w]hen a monopsonist reduces purchases of inputs to reduce input prices, society foregoes the production of output whose value to consumers exceeds the resource costs of associated inputs, thereby creating a welfare loss to society." *Dose of Competition*, ch. 6, section III.

¹⁴¹ State-level private healthcare expenditures are calculated from the most recent year of itemized state-level data, 2004 (CMS, "Health Expenditures by State of Provider, 1980-2004"). Private expenditures per capita are computed as [(Total personal healthcare expenditures – Medicare and Medicaid personal healthcare expenditures) / 2005 Under-65 population]. Personal healthcare expenditures, as defined by CMS, do not include the costs of private health insurance (i.e., administrative expenses and profit).

¹⁴² CMS notes that the state-level data, which are calculated on the basis of provider rather than patient states, may be biased by travel across borders. A regression based just on the 25 largest states, which likely have less cross-border travel, also shows an insignificant relationship ($t = -0.49$). The same is true for a regression that includes region fixed effects, which controls for the fact that cross-border travel is most likely an issue in the Northeast ($t = -0.35$).

Figure 17. State-level private healthcare expenditures are unrelated to the AHA-reported HHI



Source: AMA, *Competition in Health Insurance, 2007 update* (containing data for 2005); CMS, *Health Expenditures by State of Provider, 1980–2004*; U.S. Census Bureau, *Interim State Population Projections, 2005*.

Appendix C. Statistical basis for cost and premium calculations

CMS maintains the National Health Expenditures (NHE) data, which are “the official estimates of total health care spending in the United States.”¹⁴³ The most recent set of NHE tables contains highly detailed annual data for the period 1997–2007, as well as data for selected earlier years.¹⁴⁴ In particular, Table 12 in the NHE tables contains data on the total dollar value of Private Health Insurance (PHI) payments for personal health care (i.e., expenditures on benefits) and the total dollar value of insurance premiums. Table 13 in the NHE tables contains data on premiums collected by private health insurers on a per enrollee basis.

¹⁴³ http://www.cms.hhs.gov/NationalHealthExpendData/02_NationalHealthAccountsHistorical.asp.

¹⁴⁴ <http://www.cms.hhs.gov/NationalHealthExpendData/downloads/tables.pdf>.

From 1999–2007, the growth rate in total expenditures by private insurers on personal healthcare (i.e., payments by private insurers on behalf of enrollees) grew at an average rate of 7.9%. This is almost identical to the 8.0% growth rate in per enrollee premiums over the same period. If the difference between the figures 7.9% and 8.0% is meaningful, rather than the result of rounding, this indicates that 98.75% of the increase in per enrollee premiums since 1999 is explained purely by increased payments to healthcare providers, pharmaceutical companies, and medical equipment manufacturers.¹⁴⁵

Figure 18. Private health insurance: expenditures on benefits and premiums

Year	Personal Health Care expenditures (Benefits), by type of provider (\$ billion) ^[1]				Premiums		
	Hospitals	Physicians and clinics	Other	Total	Kaiser / HRET ^[2]		NHE ^[3]
					Individual	Family	Per enrollee premiums
1998	\$121.9	\$122.1	\$100.4	\$344.4			\$2,012
1999	\$131.4	\$127.6	\$112.0	\$371.0	\$2,196	\$5,791	\$2,136
2000	\$144.0	\$136.7	\$122.1	\$402.8	\$2,471	\$6,438	\$2,306
2001	\$157.1	\$148.9	\$135.0	\$441.0	\$2,689	\$7,061	\$2,537
2002	\$172.1	\$163.1	\$147.1	\$482.3	\$3,083	\$8,003	\$2,821
2003	\$188.0	\$177.7	\$155.8	\$521.5	\$3,383	\$9,068	\$3,106
2004	\$202.8	\$191.1	\$166.7	\$560.6	\$3,695	\$9,950	\$3,306
2005	\$215.4	\$207.1	\$176.4	\$598.9	\$4,024	\$10,880	\$3,527
2006	\$236.1	\$221.5	\$180.3	\$637.9	\$4,242	\$11,480	\$3,729
2007	\$256.9	\$236.5	\$186.9	\$680.3	\$4,479	\$12,106	\$3,946
CAGR (1999 – 2007)	8.7%	8.0%	6.6%	7.9%	9.3%	9.7%	8.0%

Notes:

[1] 2007 National Health Expenditures Web Tables, Table 12.

[2] Kaiser/HRET 2008 Survey, Ex. 1.9.

[3] 2007 National Health Expenditures Web Tables, Table 13.

The data on premiums from the Kaiser/HRET survey show an average increase in individual and family premiums that is approximately 19% larger than the increase implied by the per enrollee figures from the NHE. There are at least two explanations for this difference, and both suggest that the NHE data are the more reliable basis for assessing increases in premiums. First, Census estimates indicate that from 2000 to 2007, average family size increased from 3.14 to 3.19.¹⁴⁶

¹⁴⁵ The NHE tables itemize personal health care expenditures into 10 distinct categories: Physician and Clinical Services, Other Professional Services, Dental Services, Other Personal Health Care, Home Health Care, Nursing Home Care, Prescription Drugs, Other Non-durable Medical Products, and Durable Medical Equipment.

¹⁴⁶ U.S. Census Bureau, Fact Sheet, 2000, <http://factfinder.census.gov/servlet/SAFFacts>; U.S. Census Bureau, Fact Sheet, 2005–2007, <http://factfinder.census.gov/servlet/ACSSAFFacts>.

While this difference may appear trivial, it implies one additional insured person for every 20 families with family coverage.¹⁴⁷ To the extent that increases in family premiums simply reflect increases in family size, the increase in family premiums will overstate the per enrollee increase in premium expenditures. An increase in premiums stemming from an increase in family size would reflect the costs of covering additional persons and would not constitute an actual price increase. Second, the NHE figures are constructed by combining the results of three data sources: (1) insurance industry data from A.M. Best and other sources, (2) provider and household survey data, and (3) surveys of employers and individuals. CMS also cross-checks its results against alternative sources, which include but are not limited to Kaiser/HRET.¹⁴⁸ Because the NHE data are more extensively sourced, researched, and cross-checked, they are likely to be more accurate.

¹⁴⁷ More than one-third of those who purchase insurance through their employers select family coverage. Kaiser/HRET 2008 Survey, Ex. 3.9.

¹⁴⁸ CMS, “National Health Expenditures Accounts: Definitions, Sources, and Methods, 2007,” 14–15, <http://www.cms.hhs.gov/NationalHealthExpendData/downloads/dsm-07.pdf>.