

**Geographic Market Definition in Commercial Health Insurer Matters:
A Unified Approach for Merger Review, Monopolization Claims, and
Monopsonization Claims**

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Abstract

We provide a methodology for geographic market definition when the product(s) being purchased or sold has an intrinsic geographic component, such as 1) the sale of commercial health plans and 2) the purchase of health care providers' services by commercial health plans. In these situations, we show that a straightforward application of the *Horizontal Merger Guidelines* issued by the U.S. Department of Justice (DOJ) and the Federal Trade Commission (FTC) (hereafter, *Guidelines*) that uses the customer or supplier location to define the geographic market is not sufficient and can result in markets that are unintuitively small. This is often addressed by applying an assumption about aggregating based on similar competitive conditions. The practice of relying on the assumption of similar competitive conditions across counties, Metropolitan Statistical Areas, or other geographic areas, without a methodology to support this assumption, could lead to market definitions that are too narrow or too broad and could influence the assessments of the extent of market concentration and the presence or absence of market power. We outline a framework that is consistent with the *Guidelines* and does not require a reliance on the assumption of aggregation based on similar competitive conditions.

Keywords: Market definition, Antitrust, Merger guidelines, Health insurance, Geographic market

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I. INTRODUCTION AND CONTEXT

Identification of relevant antitrust markets in commercial health insurance matters is a fact-specific question often involving complex empirical analysis.¹ Commercial health insurers act both as buyers and as sellers in the health care space. In one set of economic interactions, commercial health insurers assemble networks of providers of health care services (*e.g.*, hospitals, outpatient facilities, and professionals, including physicians) at favorable rates/prices to provide health care services to their enrollees. In another set of economic interactions, commercial health insurers sell commercial health plans that include access to these networks at favorable prices to groups, such as employers, and to individuals.

Due to a commercial health insurer's role as both a buyer and a seller in the health care space, mergers and acquisitions between commercial health insurers may create and enhance market power in markets for the sale of commercial health insurance, as well as in markets for the purchase of services from health care providers. Similarly, due to their role as both buyers and sellers in the health care space, commercial health insurers may be subject to antitrust claims based on both monopolization theories of harm in markets for the sale of commercial health plans, and monopsonization theories of harm in markets for the purchase of services from health care providers. The proper application of market definition in each of the conduct cases requires that antitrust markets be defined from the perspective of the aggrieved party.² Therefore, depending on the parties involved in the proposed merger/acquisition or the nature of the antitrust claim and the alleged misconduct, antitrust practitioners may define relevant antitrust markets for the purchase of the services of health care providers, the sale of commercial health plans, or both.

The differences in the *product* market definitions between the two settings are well understood and are not the focus of this article. Since commercial health insurers are buyers and sellers in the health care space and the ‘product’ being bought and sold differs in the two sets of economic interactions, product market definition naturally reflects these differences.³ In both settings, product market definition is a fact-specific exercise that requires taking into account the industry background and the allegations of a particular case.

In terms of *geographic* market definitions, there is agreement among economists and practitioners that health care markets are local. For example, Gaynor and Town explicitly note that the geographic market for health insurance is local.⁴ Similarly, Capps notes that the structure of the commercial health insurance industry is such that commercial health plans assemble local provider networks and market them to local employers,⁵ making competition between commercial health insurers predominantly local in nature.⁶ Dranove, Gron, and Mazzeo study HMO markets and note that only HMOs that have contracted with local providers are in a position to compete for the business of individual employers.⁷ Furthermore, Kaplow and Shapiro discuss recent hospital merger cases, and conclude that under the SSNIP test, a local geographic area may constitute the relevant market.⁸

Despite the agreement that health care markets are likely local, there is no agreement about what the the geographic boundaries of these local markets are. There are multiple options. Health economists have considered a variety of potential geographic areas as local markets, such as Metropolitan Statistical Areas (MSAs), Core-Based Statistical Areas (CBSAs), Commuting Zones (CZs), Hospital Service Areas (HSAs), Hospital Referral Regions (HRRs), and others.⁹

In merger challenges and cases involving allegations of monopolization or monopsonization, definition of the geographic market usually precedes and has a large influence

on assessments of the extent of market concentration and the presence or absence of market power. Defining markets too narrowly, could lead to overestimates of market concentration and false conclusions about the presence of market power. Similarly defining markets too broadly, could lead to underestimates of market concentration and false conclusions about the absence of market power.

The academic literature provides multiple examples of how changing the geographic boundaries of markets impacts estimates of market concentration and thus, underscores the need for careful empirical analysis underlying geographic market definition. For example, Benmelech, Bergman and Kim study the impact of labor market concentration on wages using two specifications of the geographic market—the county and the CZ. Geographic market specification has a large impact on their estimates of market concentration. Changing from the smaller county-based definition to the larger CZ definition decreased their estimates of market concentration from 52 percent to 34 percent (three-digit SIC level) and from 65 percent to 48 percent (four-digit SIC level).¹⁰

Another example is Prager and Schmitt’s study of the impact of hospital mergers on the wages of workers with industry-specific skills. When the authors measure concentration using geographic markets defined as the CZ, increases in concentration have a negative and statistically significant impact on wage growth. The estimates are no longer statistically significant when geographic markets are measured as the HRR.¹¹

In its three challenges to mergers of health insurers—*Anthem/Cigna* (2016), *UnitedHealth/PacifiCare* (2005), and *Aetna/Prudential* (1999)—the DOJ asserted that the geographic markets for the sale of commercial health plans are MSAs, noting that patients prefer to seek treatment close to where they work or live and, as such, managed care companies compete

on the basis of their local provider networks.¹² In *Anthem/Cigna* (2016), the DOJ alleged harm in the same 35 metropolitan statistical areas (MSAs) for both the purchase of health care services and the sale of health insurance to large groups. This was not the first time that the DOJ defined the same geographic markets for both the purchase of health care services and the sale of health insurance. In fact, it has been the norm. In both the *Aetna/Prudential* (1999)¹³ and *UnitedHealth/PacifiCare* (2005)¹⁴ complaints, the DOJ alleged identical geographic markets for the purchase of health care services and the sale of health insurance.

In this article we take a deeper dive into the application of the hypothetical monopolist/monopsonist test as outlined in the *Horizontal Merger Guidelines* (hereinafter, the *Guidelines*).¹⁵ We show that a narrow interpretation of the *Guidelines* that uses either the supplier or the customer location to geographically bind competition is not well-suited for defining relevant antitrust geographic markets when the services being sold or purchased have an intrinsic geographic component, such as access to a network in a specific geographic location. A critical evaluation of the implication of this use of the supplier or customer locations in the context of products with an intrinsic geographic component is particularly timely given the joint public inquiry launched by the DOJ and the FTC in 2022 on ways to modernize the federal merger guidelines given developments in the modern economy, with a particular focus on monopsony power.¹⁶

Specifically, we ask: Does the standard approach for geographic market definition used by the DOJ actually lead to the geographic markets they have alleged for both the purchase of health care providers' services by commercial insurers and the sale of commercial health insurance? In answering this question, we dissect the arguments presented in DOJ complaints over time to illustrate how the agencies have evolved in their language and grappled with the standard approach

to geographic market definition. Importantly, the strict application of either the supplier location or the customer location does not yield the geographic markets that the DOJ alleged, but instead yield price discrimination markets as narrow as individual consumers that need to be aggregated geographically to lend themselves to empirical analysis. To reach the conclusion of MSAs being the relevant geographic markets in *Anthem/Cigna* (2016), the DOJ relied on the assumption that competitive conditions in these distinct price discrimination markets were sufficiently similar in local geographic areas to be analyzed in a single relevant market.

We then outline a conceptual approach that we have applied in practice that overcomes these shortcomings and leads to the definition of local geographic markets that coincide for both the sale of commercial health plans and the purchase of health care providers' services. Key to our proposed approach is that geographic market definition should account for the intrinsic geographic component of the product being sold or bought by commercial health insurers, rather than focusing exclusively on the supplier or the customer locations. In our framework, the hypothetical monopolist/monopsonist serves as a gatekeeper for commercially insured access between enrollees who live in the candidate geographic area and health care providers located in that area. We thus assume that (1) enrollees living in the geographic area can only access providers at contracted prices within the candidate geographic area through the hypothetical monopolist/monopsonist, and (2) health care providers within the candidate geographic area can only access enrollees who live in the candidate geographic area through the hypothetical monopolist/monopsonist. We then demonstrate that our framework is consistent with the methods laid out in the *Guidelines* and unified in that it can be applied for both monopolization and monopsonization claims brought against commercial health insurers. In fact, our proposed approach is consistent with the DOJ's view that the same patient preferences that result in a local market for the sale of commercial health

plans create local markets for the purchase of health care provider services, arguing that the tangible and non-tangible assets that established providers accumulate over time are not easily transportable, including office space and equipment; established relationships with patients, hospitals, and other physicians; and a favorable reputation.

Our framework is consistent with the two-stage model of competition in which the prices of health care providers' services are determined. In the first stage, commercial health insurers and health care providers negotiate to establish prices at which the providers will be included in the health insurer's network. In the second stage, in-network health care providers compete, based on nonprice variables, to provide care for the enrollees of the health insurer. Our methodology takes into account that health insurers' and health care providers' relative bargaining leverage in the negotiation over prices in the first stage of competition is, in part, determined by the geographic location(s) of the health care provider and the geographic locations of the insurer's enrollees.

II. A DISCUSSION OF THE SHORTCOMINGS ASSOCIATED WITH USING EITHER THE SUPPLIER OR CUSTOMER LOCATIONS WHEN DEFINING GEOGRAPHIC MARKETS IN COMMERCIAL HEALTH INSURANCE MATTERS

In the *Guidelines*, the agencies note that the supplier and customer locations might determine the geographic arena of competition affected by a merger or anticompetitive conduct.¹⁷ The choice of either the supplier or the customer location affects both the thought experiment of the hypothetical monopolist/monopsonist test and the construction of market shares.

In cases when price discrimination based on customer location is feasible or when delivered pricing is used in an industry, the agencies tend to define geographic markets based on the location of the customer. When this is not the case, the agencies tend to define markets based on the location

of the supplier. Geographic markets based on the location of the supplier generally apply when customers receive goods or services at the suppliers' location and competitors in the market are other firms that also operate within the geographic market. In such cases, customers may be located inside or outside of the candidate market.¹⁸ When the location of the supplier is used, "[t]he hypothetical monopolist test requires that a hypothetical profit-maximizing firm that was the only present or future producer of the relevant product(s) located in the region would impose at least a SSNIP from at least one location, including at least one location of one of the merging firms."¹⁹

On the other hand, geographic markets based on the location of the customer generally apply when suppliers deliver their products or services to customers' locations, and thus the geographic market encompasses the regions into which sales are made. Competitors in the market are firms that sell to customers in the region, but may themselves be located either inside or outside the boundaries of the region.²⁰ When the location of the customer is used, "[t]he hypothetical monopolist test requires that a hypothetical profit-maximizing firm that was the only present or future seller of the relevant product(s) to customers in the region would impose at least a small but significant non-transitory increase in price (SSNIP) on some customers in that region. A region forms a relevant geographic market if this price increase would not be defeated by substitution away from the relevant product or by arbitrage, *e.g.*, customers in the region travelling outside it to purchase the relevant product."²¹

Neither of the two alternatives outlined above is well-suited for the analysis of the geographic markets for the sale of commercial health plans and for the purchase of health care provider services. We outline the reasons why this is the case below.

A. Competition for the sale of commercial health plans is limited by access to provider networks at contracted prices

Table II.1 summarizes the evolution of the specific language that the DOJ has used in past commercial health insurance matters to frame the hypothetical monopolist test. Although its language has evolved, the DOJ has consistently alleged the relevant geographic markets in such matters to be MSAs.

Table II.1 – DOJ’s Framing of the Hypothetical Monopolist Test over Time

CASE	HYPOTHETICAL MONOPOLIST TEST	GEOGRAPHIC MARKET
AETNA/ PRUDENTIAL (1999)	“A small but significant increase in the price of HMO and HMO-POS products in these [...] geographic areas would not cause a sufficient number of customers to switch to health plans outside of these areas to make such a price increase unprofitable.” ²²	MSAs in and around Houston and Dallas, Texas
UNITEDHEALTH/ PACIFICARE (2005)	“An insufficient number of small group employers would purchase commercial health insurance outside the [...] MSA to make a small but significant price increase [...] unprofitable.” ²³	Tucson MSA, Arizona
ANTHEM/CIGNA (2016)	“[L]arge groups are unlikely to move their offices to a different area in response to a small but significant and non-transitory increase in the price of commercial health insurance.” ²⁴	35 MSAs

In both the Aetna/Prudential (1999) and the UnitedHealth/PacifiCare (2005) complaints, the DOJ framed the hypothetical monopolist test in such a way that customers would have had to switch to purchasing commercial health plans outside of the candidate geographic market to defeat the SSNIP. However, the thought experiment framed using only the location of the supplier – i.e., the health insurer – does not speak to where the health insurer’s provider networks are located. Employers’ willingness and ability to substitute to a health insurer in a different geographic area

depend on the substitutability of the products offered, which are typically a bundle of services, and may include administrative services and risk-bearing services, as well as access to provider networks at contracted prices. The value of access to the provider network depends on the location of the health care providers in the health insurers' networks. Intuitively, an employer would likely view two health insurers, A and B, as closer substitutes if the provider networks of A and B are close together geographically, relative to if the providers networks of A and B are far apart geographically.

Without taking into account the location of provider networks, the hypothetical monopolist test based on the location of the *health insurer* is difficult to operationalize. Presumably, a health insurer located outside of the candidate geographic market could provide access to provider networks within the candidate market at contracted prices, in which case the likelihood of switching to this insurer is higher. If the health insurer outside the candidate market does not provide access to provider networks within the candidate market, it is less likely that employers would be willing to switch.

The DOJ's framing of the hypothetical monopolist test changed in the more recent *Anthem/Cigna* (2016) case. A shortcoming of this more recent methodology is that it would find numerous individual firm-specific markets the size of a city block that could satisfy the SSNIP test and thus, this methodology relies on an assumption of similar competitive conditions to define the relevant geographic market.²⁵ More specifically, in *Anthem/Cigna* (2016), the DOJ appears to have conceptualized the hypothetical monopolist test based on the location of the *customer* – *i.e.*, the employers seeking coverage for their employees – with the only options available to employers to escape the SSNIP being to stop providing insurance to their employees, to self-supply, or to move outside of the candidate market. These are not practical alternatives for most large employers in

response to a SSNIP, and as such a candidate market, no matter how small/narrow, would likely satisfy the SSNIP test based on these alternatives. For example, if one were to start with an overly narrow candidate geographic market, say, the size of a city block encompassing a single employer, very few, if any, large employers would or even could opt for any of these alternatives in response to a small but significant non-transitory increase in price. Therefore, it is unlikely that a SSNIP imposed on any city block would be defeated by employers moving outside of the city block. As such, the hypothetical monopolist test would find numerous individual firm-specific markets the size of a city block that would satisfy the SSNIP test.

The hypothetical monopolist test implemented in this manner does not speak to what is the relevant geographic market and the appropriate geographic scope of aggregation for individual target markets. The DOJ's approach described above in the *Anthem/Cigna* (2016) matter is equivalent to defining markets to serve targeted customers, also known as price discrimination markets. This approach leads to relevant markets that can be defined as narrowly as individual consumers. Since market shares calculated for individual consumers are usually less informative in predicting potential competitive effects, the agencies often define markets for groups of targeted customers who face *similar competitive conditions* so as to be able to rely on aggregated market shares.²⁶ Indeed, to arrive at the MSAs as the relevant geographic markets, the DOJ aggregated individual target markets for large group employers in local MSAs under the assumption of similar competitive conditions.

B. Competition for the purchase of health care providers’ services by commercial insurers is limited by access to the enrollee base

The DOJ’s framing of the hypothetical *monopsonist* test has also evolved over time, as shown in **Table II.2**. Like the geographic markets for the sale of commercial health plans, the DOJ has consistently alleged the relevant geographic markets in these cases to be MSAs.

Table II.2 – DOJ’s Framing of the Hypothetical Monopsonist Test over Time

CASE	HYPOTHETICAL MONOPSONIST TEST	GEOGRAPHIC MARKET
AETNA/ PRUDENTIAL (1999)	“A small but significant decrease in the prices paid to physicians would not cause physicians to relocate their practices outside of the [...] markets in numbers sufficient to make such a price reduction unprofitable.” ²⁷	MSAs in and around Houston and Dallas, Texas
UNITEDHEALTH/ PACIFICARE (2005)	“The number of physicians who would sell their services outside [... the geographic market] (by relocation, attracting patients from outside the physician’s home MSA, or otherwise) , would not be sufficient to make a small but significant price decrease [...] unprofitable. Similarly, a reduction in the quantity or quality of physician services as a result of a small but significant decrease in the prices paid to physicians would not cause patients to seek physicians’ services outside of these markets , in numbers sufficient to make such a price reduction unprofitable.” ²⁸	Boulder and Tucson MSAs, Arizona
ANTHEM/CIGNA (2016)	“A small but significant decrease in the prices paid to physicians would not cause physicians to relocate their practices outside of [...] markets in numbers sufficient to make such a price reduction unprofitable . Similarly, a reduction in the quantity or quality of physician services as a result of a small but significant decrease in the prices paid to physicians would not cause patients to seek physicians’ services outside of these markets , in numbers sufficient to make such a price reduction unprofitable.” ²⁹	35 MSAs

In both *Aetna/Prudential* (1999) and *Anthem/Cigna* (2016), the DOJ framed the hypothetical monopsonist test in such a way that physicians would need to relocate outside of the candidate market to defeat the small but significant non-transitory decrease in price (SSNDP).³⁰ This is consistent with the application of the hypothetical monopsonist test based on the location of the sellers – i.e., the physicians. In the *UnitedHealth/PacifiCare* (2005) complaint, the DOJ allowed for the possibility of physicians attracting patients from outside the candidate market.³¹

As in the discussion above, neither the location of the health insurer (*i.e.*, the buyer) nor the location of the health care provider (*i.e.*, the seller) is sufficient to properly delineate the relevant geographic market, without an assumption on access to the enrollee base. The thought experiment framed using the location of the commercial health insurer does not consider where this insurer’s enrollees are located. Providers’ willingness and ability to substitute to selling to a health insurer located in a different geographic area depends on the geographic location(s) of the health insurer’s enrollees, not the location of the health insurer itself. Intuitively, if commercial health insurers A and B both have large numbers of enrollees residing near a provider, but commercial health insurer C’s enrollees live far away from the provider, then the provider would likely view A and B as “closer” substitutes, relative to C. As such, a provider would likely not view C as a viable option for replacing the enrollees of A or B. From the health care provider’s perspective, the geographic location of the health insurer itself is irrelevant. A health insurer located outside of the health care provider’s candidate geographic market may have enrollees within the candidate market, in which case the likelihood of a provider switching to this insurer is higher. On the other hand, if the health insurer outside the candidate market does not have any enrollees within the candidate market, it is less likely that providers would be willing to switch.

Thus, to identify the relevant geographic market, a hypothetical monopsonist test based on the location of the commercial health insurer would need to assume that the insurer only enrolls individuals who reside (or intend to seek care) in the same location as the insurer itself.

Meanwhile, the thought experiment framed using only the location of the health care provider does not offer any reasonable alternatives to health care providers to escape a SSNDP. If physicians would need to relocate outside of the candidate market to defeat the SSNDP, as contemplated in *Aetna/Prudential* (1999) and *Anthem/Cigna* (2016), it is unlikely that a SSNDP imposed on any city block would be defeated by physicians moving outside of the city block. To arrive at the MSA as the relevant geographic market, the DOJ again assumed “similar competitive conditions.” Yet again, the hypothetical monopolist test implemented in this manner did not inform the definition of what is the relevant geographic market and the appropriate geographic scope of aggregation for individual target markets.

III. A UNIFIED FRAMEWORK FOR BOTH THE SALE OF COMMERCIAL HEALTH PLANS AND THE PURCHASE OF HEALTH CARE PROVIDERS' SERVICES

Below we describe a unified framing of the hypothetical monopolist and monopsonist tests that takes into account the intrinsic geographic component of the product being sold or bought in markets for commercial health insurance.

While the general principles underpinning the definition of relevant markets in both settings are the same as laid out in the *Guidelines*,³² there are differences in the application of these principles in the two settings. Market definition in health care *buyer* conduct cases focuses on the alternatives that sellers of health care services (*e.g.*, hospitals, outpatient facilities, and health care professionals) have in response to a SSNDP imposed by a hypothetical monopsonist buyer of health care services in a particular geographic area. On the other hand, in cases involving alleged misconduct by *sellers* of commercial health plans, market definition focuses on the alternatives that buyers of commercial health plans (*e.g.*, employers and individuals) have in response to a SSNIP imposed by a hypothetical monopolist seller of health plans in a particular geographic area.

For the purposes of this discussion, it may be helpful to begin by stating the relevant *product* markets we hypothesize for this discussion. For the relevant markets for the sale of commercial health insurance, we consider the product market to be the sale of commercial insurance plans to large groups, such as employers. This product market encompasses fully insured and/or self-insured plans of various types (*e.g.*, HMOs, preferred PPOs, POS plans), as well as other potential alternatives such as third-party administrators and rental networks, but excludes the sale of Medicare Advantage and Managed Medicaid plans (administered by commercial insurers on behalf of the government).

For the relevant markets for the purchase of health care providers' services, we consider the product market to be the purchase of services from health care providers, such as facilities and professionals, by commercial insurers. This product market excludes purchases of services from health care facilities by individuals who pay for health care services out of pocket, purchases from government programs such as traditional Medicare and traditional Medicaid, and purchases from commercially managed programs such as Medicare Advantage and Managed Medicaid.

A. Geographic markets for the sale of commercial health plans

To define a relevant geographic market for the sale of commercial health plans, we assume that the hypothetical monopolist is the only seller of commercial health plans with insured access to provider networks in the candidate market.

Consider the options available to an employer with employees who reside and/or work in the candidate market in which a SSNIP is imposed. Under the assumptions described above, employers would have the following alternatives to avoid a SSNIP.

First, the employer could forgo offering commercial health insurance altogether, or could self-supply, although these options are unlikely to be viable for most employers. Commercial health insurance is a central component of benefits that employees seek, and employers would have a hard time retaining employees without this essential benefit.³³ Moreover, self-supplying insurance by negotiating directly with health care providers is only an option for a select few very large employers with sufficient scale.

Alternatively, the employer could offer commercially insured access to provider networks outside of the candidate market. This could be accomplished in one of two ways. Either employees

would need to travel outside the candidate market for insured access to health care providers, or the employer could relocate itself and its employees to outside of the candidate market.

As it is unlikely that enough employers would relocate due to a SSNIP, given the cost of doing so, the mechanism for defeating a SSNIP largely relies on employees' willingness to travel outside the candidate market for insured access to health care providers' services. For a candidate market to pass the SSNIP test, it needs to be broad enough that enough employees would find travelling outside the candidate market prohibitive. Given the importance of customer preference in geographic market definition cases,³⁴ as well as the well-documented employee preferences for insured access to health care providers located near to where employees live and/or work,³⁵ the candidate market to pass the SSNIP test would likely need to be local, but not unreasonably small. To the extent that insurer claims data are available, an empirical study of where employees seek care can shed light on whether the candidate market is sufficiently large to pass the SSNIP test. For example, if the vast majority of total claims are associated with services provided in the same candidate market in which the employees reside, it would be unlikely that an employer would disrupt a large portion of the healthcare services of its employees by shifting to offering its employees insured access only to provider networks outside of the candidate market in response to a SSNIP.

Consider, for example, a candidate market the size of a city block. In this case, the hypothetical monopolist is the only seller of commercial health plans with insured access to provider networks in the city block. In most cases, the exception being some rural areas, employees of employers located within the city block likely would not find it too burdensome to travel outside the city block to obtain insured access to health care services.³⁶ As such, it is reasonable to assume that a sufficient number of employers within the city block could respond to a SSNIP by switching

to a commercial health insurer selling insured access to provider networks outside the city block without much backlash from employees. Employers likely could avoid, and thus likely defeat, a SSNIP imposed in a geographic market the size of a city block.

The hypothetical monopolist test then proceeds by expanding the candidate market and repeating the exercise until the SSNIP is successful, which will occur when the candidate market is large enough that not enough employees would be willing to travel outside of it for insured access to the services of health care providers. Under this framing, a MSA could likely pass the test, depending on the actual underlying data; however, as discussed above, a city block would most likely fail the test.

B. Geographic markets for the purchase of health care providers' services

To define a relevant geographic market for the purchase of health care providers' services, we assume that the hypothetical monopsonist is the only buyer of health care providers' services for enrollees who live and work in the candidate geographic area.

To consider whether a SSNDP imposed by the hypothetical monopsonist would be profitable, one must determine (1) the extent to which health care providers would respond by reducing the quantity of services provided; and (2) the extent to which demand for the insurer's commercial health plans would decrease, as a result of the decrease in quantity supplied by health care providers. If the reduction in the monopsonist's total costs, associated with paying providers less for each service and paying for fewer services, outweighs the reduction in total revenues, associated with fewer enrollees, then the SSNDP would be profitable, and the candidate market qualifies as a relevant antitrust geographic market. If health care providers are not very responsive to a reduction in the prices they are paid, or demand for the insurer's commercial health plans is

not very responsive to changes in its provider networks, then the SSNDP is more likely to be profitable. We address each of these issues sequentially.

Consider the options available to a health care provider located in the candidate market in which a SSNDP is imposed. Under the assumptions described above, the provider could either relocate outside the candidate market or try to replace the business associated with the hypothetical monopsonist located within the candidate market with business from another health insurer located outside the candidate market. As noted above, it is unlikely that health care providers, especially health care facilities, would relocate to a different candidate geographic market in response to the SSNDP. As such, the most likely mechanism for a health care provider to escape the SSNDP is to try to attract new business from outside the candidate market.

A health care provider's ability to escape the SSNDP depends on the provider's ability to replace the lost business associated with the hypothetical monopsonist. The greater the amount of business associated with the hypothetical monopsonist, the more difficult and expensive it would be to replace the lost business associated with the hypothetical monopsonist. In addition, the provider's ability to avoid the SSNDP depends on the number of current and prospective enrollees who both reside and work outside the candidate market and are willing to obtain their care where the provider is located. To the extent that insurer claims data are available, empirical study of the geographic areas from which health care providers draw their patients can shed light on whether the candidate market is sufficiently large to pass the SSNDP test. For example, if the vast majority of the total allowed amount is associated with patients residing in the same candidate market in which the health care provider is located, it would be very difficult for a health care provider to replace a significant share of its total business by attempting to attract commercially insured enrollees who reside and work outside of the candidate market in response to a SSNDP.

To the extent health care providers decrease the quantity of services supplied to the enrollees of the hypothetical monopsonist in the candidate market, the hypothetical monopsonist would likely lose some enrollees. As noted in the section above, however, the hypothetical monopsonist is unlikely to lose many enrollees if the candidate geographic market is sufficiently large, as employees tend to view health insurance as an important benefit, employers likely would not relocate outside the candidate market in response to providers decreasing the quantity of health care services supplied, and employees likely would be unwilling to travel large distances to receive health care services.

Thus, the same mechanisms that limit the geographic dimension of competition in markets for the sale of commercial health plans apply to markets for the purchase of health care providers' services. The candidate market needs to be sufficiently broad that sufficiently many employees would find travelling outside the candidate market prohibitive. Under this framing, due to the same reasoning described above in III.A, a city block would likely fail the SSNDP test, but a MSA likely would pass the test, depending on the actual underlying data.

Using this unified framework, the relevant geographic markets for both the purchase of health care provider services and the sale of commercial health plans are local and likely to coincide.

IV. APPLICATION OUTSIDE OF HEALTH CARE

The unified framework we describe above may be applied to other industries in which intermediaries buy and sell products with geographic components. For example, the U.S. Federal Communications Commission has concluded that the relevant geographic markets for services provided by multichannel video programming distributors (MVPDs) are also local.³⁷ In this

setting, cable operators acquire programming, which is then packaged and sold to consumers. This programming typically includes local components, such as local news networks, as well as advertisements intended for viewers in a target geographic area. In framing the hypothetical monopolist and monopsonist tests for a MVPD, similar limitations arise with respect to using either the location of the seller or customer to define a geographic market. Cable providers may serve consumers in geographic areas other than those in which they themselves are located, just as health insurers may enroll individuals from other areas. In addition, it is reasonable to suppose that consumers would be unlikely to move residences to avoid a SSNIP when it comes to their cable subscription. However, a residence – just like an employer – is typically located in a small geographic area (*e.g.*, a city block, a one-acre plot of land) that would again need to be aggregated for analytical convenience under an assumption of similar competitive conditions.

The approach presented in this paper could also apply to two-sided platforms, since many two-sided platforms facilitate the exchange of products and services with intrinsic geographic components (*e.g.*, ridesharing, home rentals).³⁸ In these cases, traditional approaches to framing of the hypothetical monopolist and monopsonist tests are likely to be similarly inadequate and insufficient to define those geographic markets relevant to competition.

V. CONCLUSION

In this article we explored the question: Is a narrow interpretation of the *Guidelines* that focuses on either the supplier or the customer location well suited for defining geographic markets when the services being sold or purchased have an intrinsic geographic component, such as access to health care providers' services in a specific geographic location? We show that a straightforward application of the *Guidelines* that uses the customer or supplier location to define the geographic

market is not sufficient and can result in markets that are unintuitively small. This is often addressed by applying an assumption about aggregating based on similar competitive conditions. Instead, we propose an alternative framework that treats the geographic aspect of the product bought or sold as the geographically limiting factor to competition and does not require a reliance on the assumption of aggregation based on similar competitive conditions. We then illustrate conceptually how this framework could be applied to the markets for the purchase of health care providers' services by commercial health insurers and the sale of commercial health insurance.

Our framework is consistent with economic theory and antitrust practitioners' views that health care markets are local. That said, broader geographic markets, even national markets, may be well defined in certain commercial health insurer matters. The implication of this article is not that geographic markets for commercial health insurers must be local irrespective of the context of the allegations. To the extent that access to the health care provider networks is relevant, it is likely that the relevant geographic markets will be local. Commercial health insurers usually provide a number of health care financing services, including but not limited to access to a network of health care providers in the enrollees' geographic area(s), risk-bearing services, medical management, and administrative services, such as claims processing, billing, record keeping, and facilitation of payments to health care providers. Unlike access to health care provider networks, which has an intrinsic geographic component, administrative services and risk bearing are not inherently local. For example, third-party administrators can provide administrative services from virtually anywhere. Depending on the allegations of the case, it may make sense to consider the entire bundle of health care financing services or potentially to focus only on a subset of services for which the at-issue conduct has been alleged.

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- ¹ We consider commercial health insurance (also referred to as private health insurance) matters to include matters related to the design, operation, and administration of health insurance by non-governmental parties. Such matters may include, for example, contracting with health care providers to form provider networks associated with insurance plans, contracting with employers and/or individuals to facilitate enrollment in such plans, and processing claims incurred by plan enrollees.
- ² *See, for example*, Steward Health Care System, et al. v. Blue Cross & Blue Shield RI, Case No. 13-405 S, Opinion and Order Re Motion to Dismiss is Denied, 34–35 (February 19, 2014) (“The correct lens through which to conduct relevant market analysis is from the perspective of the aggrieved party”).
- ³ In the context of the purchase of health care services, product market definition involves delineating the set of buyers of health care services to be included in the relevant product market. These buyers may include commercial health insurers; government programs such as traditional Medicare and traditional Medicaid; and commercially managed programs such as Medicare Advantage and Managed Medicaid. This approach to product market definition has been used in prior cases related to the sale of health insurance brought by and before the DOJ. *See, for example*, U.S. v. UnitedHealth Group, Inc. and PacifiCare Health Systems, Inc., Case No. 105-CV-02436, Complaint, ¶ 16 (December 20, 2005). On the other hand, in the context of the sale of commercial health insurance, product market definition involves delineating the set of sellers to which buyers of commercial health insurance can turn. These sellers may include health insurance companies that offer fully insured and/or self-insured plans of various types (e.g., health maintenance organization (HMO), preferred provider

organization (PPO), and point of service (POS) plans), as well as other potential alternatives such as third-party administrators and rental networks. *See*, for example, *U.S. and Texas v. Aetna, Inc. and Prudential Ins. Co. of America*, Case No. 3-99CV1398-H, Complaint, ¶¶ 17–18 (June 21, 1999). We also note that, in theory, buyers of commercial health insurance may forgo purchasing commercial insurance entirely. In the case of employers, this option is impractical given the essential value attached to employer-sponsored health benefits by both current and prospective employees. In practice, over 80% of the commercially insured population in the U.S. is covered through their employer. *See Health Insurance Coverage of the Total Population*, The Henry J. Kaiser Family Foundation, 2015, <http://www.kff.org/other/state-indicator/total-population/>; Dallas Salisbury & Pamela Ostuw, *Value of Benefits Constant in a Changing Job Environment: The 1999 World at Work/EBRI Value of Benefits Survey*. EBRI NOTES. 21 at 5–6 (2000); Ellen O’Brien, *Employers’ benefits from workers’ health insurance*, MILBANK Q. 81(1) at 5–43 (2003). doi:10.1111/1468-0009.00037

⁴ Martin Gaynor & Robert J. Town, *Competition in Health Care Markets*, National Bureau of Economic Research Working Paper (2011) at 83 (“[s]ince the vast majority of health insurance restricts enrollees’ choices to a network of providers, most of whom are local, the geographic market for health insurance is local, and smaller than a state.”).

⁵ Cory S. Capps, *Buyer Power in Health Plan Mergers*, J. COMPET. LAW ECON, 6, 2, 2009, at 388–389 (“[h]ealth plans assemble networks of local providers and market those networks to local employers. As a result, the geographic market in which physician services are purchased and the geographic market in which health plans are sold roughly coincide.”).

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- ⁶ Cory S. Capps, *Federal Health Plan Merger Enforcement Is Consistent and Robust*, Bates White LLC Working Paper (2009) at 13 (“[t]his comports with common sense and the industry structure [...]: health insurers assemble networks of local physicians, hospitals, and other providers and then market those networks to local employers. Thus, the bulk of competition between insurers, both for customers and for providers, is predominantly local.”).
- ⁷ David Dranove, Anne Gron & Michael J. Mazzeo, *Differentiation and Competition in HMO Markets*, J. IND. ECON. 440 (2014) (“employers typically purchase HMO services on behalf of employees, and that employees strongly prefer to use medical services from local providers. [...] [O]nly those HMOs that have contracted with local providers are in a position to compete for the business of individual employers.”).
- ⁸ Louis Kaplow & Carl Shapiro, *Chapter 15: Antitrust*, HANDBOOK OF LAW AND ECONOMICS, VOLUME 2, 1176–1177 (A. Mitchell Polinsky and Steven Shavell ed., 2007).
- ⁹ CBSAs and MSAs are classifications of geographic areas delineated by the U.S. Office of Management and Budget. A CBSA is a geographic area containing a large urban area and the adjacent communities that have a high degree of integration with that urban area. A CBSA must have a population of at least 50,000 to qualify as an MSA. CZs, unlike CBSAs, have no urbanized area requirements and span the entire United States. HRRs and HSAs were developed as part of the Dartmouth Atlas Project. HSAs represent geographical regions in which residents receive most of their hospitalizations from the hospitals in that region. HRRs represent the geographical regions in which residents receive tertiary care. HRRs

were created by assigning HSAs to the geographical region in which the greatest proportion of tertiary cardiovascular procedures were performed.

- ¹⁰ Benmelech, Efraim, Nittai K. Bergman, and Hyunseob Kim, *Strong Employers and Weak Employees: How Does Employer Concentration Affect Wages?*, JOURNAL OF HUMAN RESOURCES, vol. 57 no. 7, (2022), at S208.
- ¹¹ Prager, Elena, and Matt Schmitt, *Employer Consolidation and Wages: Evidence from Hospitals*” AMERICAN ECONOMIC REVIEW, 111 (2), (2021), at 415.
- ¹² U.S. and Texas v. Aetna, Inc. and Prudential Ins. Co. of America, Case No. 3-99CV1398-H, Complaint, ¶¶ 19–20 (June 21, 1999) (“Patients seeking medical care generally prefer to receive treatment close to where they work or live, and many employers require managed care companies to offer a network that contains a certain number of health care providers within a specified distance of each employee’s home. As a result, virtually all managed care companies establish provider networks in the localities where employees live and work, and they compete on the basis of their local provider networks.”); U.S. v. UnitedHealth Group, Inc. and PacifiCare Health Systems, Inc., Case No. 105-CV-02436, Complaint ¶ 22 (December 20, 2005) (“Health care primarily occurs on an in-person basis. Employees seek relationships with physicians and other health care professionals and institutions that are located in the metropolitan area in which they live and work.”); U.S. v. Anthem, Inc. and Cigna Corp., Civil Action No. 16-1493 (ABJ), Complaint, ¶¶ 42–43 (July 21, 2016) (“Patients typically seek medical care close to where they live or work, so they strongly prefer health plans offering a network of doctors and hospitals in those same areas.”).

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- ¹³ U.S. and Texas v. Aetna, Inc. and Prudential Ins. Co. of America, Case No. 3-99CV1398-H, Complaint, ¶¶ 19–20, 28–29 (June 21, 1999).
- ¹⁴ U.S. v. UnitedHealth Group, Inc. and PacifiCare Health Systems, Inc., Case No. 105-CV-02436, Complaint, ¶¶ 22–25, 34–35 (December 20, 2005).
- ¹⁵ *Horizontal Merger Guidelines*, U.S. Department of Justice (2010) (hereinafter, “*Guidelines*”).
- ¹⁶ *Federal Trade Commission and Justice Department Seek to Strengthen Enforcement Against Illegal Mergers*, Federal Trade Commission, 2022, <https://www.ftc.gov/news-events/news/press-releases/2022/01/federal-trade-commission-justice-department-seek-strengthen-enforcement-against-illegal-mergers>.
- ¹⁷ *Guidelines*, *supra* note 3, at 13–14.
- ¹⁸ *Id.* at 13.
- ¹⁹ *Id.* at 13.
- ²⁰ *Id.* at 14.
- ²¹ *Id.* at 13–14.
- ²² U.S. and Texas v. Aetna, Inc. and Prudential Ins. Co. of America, Case No. 3-99CV1398-H, Complaint, ¶¶ 19–20 (June 21, 1999).
- ²³ U.S. v. UnitedHealth Group, Inc. and PacifiCare Health Systems, Inc., Case No. 105-CV-02436, Complaint, ¶ 25 (December 20, 2005).
- ²⁴ U.S. v. Anthem, Inc. and Cigna Corp., Civil Action No. 16-1493 (ABJ), Complaint, ¶¶ 42–43 (July 21, 2016).

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- ²⁵ Note that the DOJ also defined markets for national accounts. Here we focus on large group employers, as this was the market for which the judge found sufficient anticompetitive harm to block the merger.
- ²⁶ *See, Guidelines*, at 12–13.
- ²⁷ U.S. and Texas v. Aetna, Inc. and Prudential Ins. Co. of America, Case No. 3-99CV1398-H, Complaint, ¶¶ 29 (June 21, 1999).
- ²⁸ U.S. v. UnitedHealth Group, Inc. and PacifiCare Health Systems, Inc., Case No. 105-CV-02436, Complaint, ¶ 35 (December 20, 2005).
- ²⁹ U.S. v. Anthem, Inc. and Cigna Corp., Civil Action No. 16-1493 (ABJ), Complaint, ¶¶ 68 (July 21, 2016).
- ³⁰ Note that the DOJ used the equivalent term, small but significant and non-transitory *reduction* in price (SSNRP).
- ³¹ The *UnitedHealth/PacifiCare* matter (2005) also introduced an additional layer to the hypothetical monopsonist test which carried over to the *Anthem/Cigna* (2016) case, where the framing included a second-order effect related to patients’ response to this SSNDP. This was not previously included in the *Aetna/Prudential* (1999) complaint, but is an addition that we think is proper and necessary to operationalize the hypothetical monopsonist test.
- ³² *Horizontal Merger Guidelines*, U.S. Department of Justice (2010).
- ³³ *See* Dallas Salisbury & Pamela Ostuw, *Value of Benefits Constant in a Changing Job Environment: The 1999 World at Work/EBRI Value of Benefits Survey*, EBRI NOTES. 2000:21:5–6; Ellen O’Brien, *Employers' benefits from workers' health insurance*,

MILBANK Q. 2003:81(1):5–43. doi:10.1111/1468-0009.00037, *See also* U.S. v. Anthem, Inc. and Cigna Corp., Civil Action No. 16-1493 (ABJ), Complaint, ¶ 42.

³⁴ *See, e.g.*, Louis Kaplow, *Why (Ever) Define Markets?*, Harvard Law School Public Law & Legal Theory Working Paper Series, 11-08 (2010) at 448, FN 22.

³⁵ *Id.* *See also* U.S. v. Anthem, Inc. and Cigna Corp., Civil Action No. 16-1493 (ABJ), Complaint, ¶ 42 (July 21, 2016); R. Brondeel, A. Weill, F. Thomas, B. Chaix, *Use of health care services in the residence and workplace neighbourhood: the effect of spatial accessibility to healthcare services*, HEALTH PLACE, 2014 Nov. 30:127–33. doi: 10.1016/j.healthplace.2014.09.004. Epub 2014 Sep 28. PMID: 25262490.

³⁶ In some rural areas with only one hospital, a geographic area the size of a city block that includes the only hospital may pass the hypothetical monopolist test if the next closest hospital is prohibitively far away for enough employees to be willing to travel to for insured access to hospital services.

³⁷ *In the Matter of Applications of Comcast Corp. and Time Warner Cable Inc.*, MB Docket No. 14-57 Applications and Public Interest Statement (April 8, 2014) https://www.sec.gov/Archives/edgar/data/1377013/000095010314002555/dp45501_425.htm.

³⁸ While we discuss that commercial health insurers serve as intermediaries between upstream health care providers and downstream employers and individuals, commercial health insurers are not platforms facilitating interactions between two sets of users. Our view is consistent with the economic literature, which does not consider health insurance to be two-sided platforms. (*See, e.g.*, Hermalin, Benjamin E. and Michael L. Katz, “What’s So Special About Two-Sided Markets?,” *Toward a Just Society*, Columbia University Press, September 2018)

Fundamentally, commercial health insurers buy health care services from providers of health care services and sell commercial health plans that grant access to these networks at discounted prices. Moreover, unlike two-sided platforms, health insurers have an incentive to reduce interactions between health care providers and patients. For instance, preventative care covered by commercial health insurance is meant to detect health issues before symptoms develop and reduce the number of costly medical visitations and procedures.