Check for updates

Medical Care Research and Review
2022, Vol. 79(1) 133–140
© The Author(s) 2020
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/1077558720980561
journals.sagepub.com/home/mcr
SAGE

The Commissions Paid to Brokers for Fully Insured Health Insurance Plans

Ge Bai[1,2], Angela Park[3], Yang Wang[2], Heidi N. Overton[3], William E. Bruhn[3], and Martin A. Makary[2,3]

Abstract

Insurance agents and brokers play an important role in facilitating the contracting of fully insured health insurance and pharmacy benefit plans for U.S. employers. They are primarily compensated with a commission charged back to the plan. Using a national sample that covered 11.7 million employees enrolled in 33,689 health plans in 2017, we found that a plan's commission (median: $178) was positively associated with a plan's premium (coefficient: 0.01 for the full sample and 0.03 for small plans, $p < .001$) after controlling for the number of enrollees. The commission-to-premium ratio was greater for smaller plans and plans offered by nonmajor insurance companies, and varied by geographic region. Policy makers should consider improving transparency of the commission to facilitate employers making efficient broker contracting and plan purchasing decisions. The fee-based brokerage model has the potential to help employers and workers contain health care spending.

Keywords

employer health insurance, health insurance broker, health insurance agent, health insurance commission

Background

In 2018, the majority of Americans (178 million) received health insurance through their employer (U.S. Census Bureau, 2019). Health insurance costs for American workers have been growing faster than median household income (Kaiser Family Foundation [KFF], 2019; The Commonwealth Fund, 2019). While most large employers directly hire benefit consultants to navigate their self-insured health plans, small employers often use intermediaries, known as insurance agents and brokers, to facilitate decision making on fully insured health plans (Hall, 2000; Karaca-Mandic et al., 2018). These intermediaries, independent from health insurers, are licensed by state insurance regulators to sell insurance products from a single company (agents) or from multiple companies (brokers; Karaca-Mandic et al., 2018).

Most employers, due to their insufficient knowledge of the complex health insurance products, face substantial information asymmetry in the health insurance market (Karaca-Mandic et al., 2018). Insurance agents and brokers (collectively referred to as "brokers" in this study) play an important role in researching, presenting, and recommending fully insured plan options for employers. The market for insurance brokers is competitive. Employers usually take multiple bids to determine which broker to retain. Once retained, a broker initiates a request for proposal based on employers' specific background and preferences, evaluate proposals submitted by insurance carriers, and select the winning plans and carriers. A survey conducted in 2013 found that 80% of small employers (with 50 or fewer employees) used a broker for their fully insured plans. Among these firms, 84% used brokers for plan selection, 79% for employee enrollment, 59% for customer services, 57% for benefit administration through the Consolidated Omnibus Budget Reconciliation Act of 1986, and 31% for determining employee contributions toward premiums (Gabel et al., 2013).

Brokers are primarily compensated by insurance companies through a commission, which is eventually charged to the plan. Brokers also can receive a bonus from insurance companies and receive service or consulting fees directly from employers. Earlier studies documented that in the 1990s, brokers in the individual health insurance market in New Jersey received 10% to 15% of the plan premium as

This article, submitted to *Medical Care Research and Review* on May 7, 2020, was revised and accepted for publication on November 13, 2020.

[1]Johns Hopkins Carey Business School, Baltimore, MD, USA
[2]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA
[3]Johns Hopkins University School of Medicine, Baltimore, MD, USA

Corresponding Author:
Ge Bai, Bernstein-Offit Building 353, 1717 Massachusetts Avenue NW, Washington, DC 20036, USA.
Email: gbai@jhu.edu

commissions (Garnick et al., 1998), and brokers in Florida received 1% to 3% and 5% to 8% of the plan premium as commission for group plans with fewer than four enrollees and plans with up to 25 to 50 enrollees, respectively (Hall, 2000). The results of these studies, however, have limited relevance in the current market, since the Patient Protection and Affordable Care Act (ACA) has altered the landscape of the employer-sponsored health insurance market. For example, the law establishes specific insurance policy criteria, which exacerbates the information asymmetry of employers (Pozen & Vinjamoori, 2015); the law also initiated Small business Health Options Program (SHOP) exchanges for small employers to purchase health plans (Gabel et al., 2015).

New Contributions

To date, the factors associated with the health insurance broker commission have not been examined on a national scale. The proprietary nature of contracts between brokers and insurance companies has created challenges to empirical examination of this question. In this study, we collected data from the mandatory government filings by U.S. employer-sponsored fully insured health plans and created a large national data set to examine the magnitude of commissions and how it varied across plan type, plan size, insurance company type, and geographic regions. Understanding the commissions paid to brokers has important implications for employers and workers as they seek to contain health care spending.

Table 1. Sample Selection.

Plan description	# of plans
Plans downloaded from the website	228,112
Plans not related to health care	(132,893)
Plans not located in the United States	(2,140)
Plans that reported missing number of enrollees	(1,328)
Plans that reported missing insurance carrier EIN	(28)
Plans that reported negative or missing premiums	(11,688)
Plans that reported negative or missing commissions	(4,806)
Plans that reported greater commissions than premiums	(416)
Stand-alone dental plans	(16,085)
Stand-alone vision plans	(17,642)
Stand-alone prescription drug plans	(255)
Plans that chose any combination of "dental," "vision," and "prescription drug," but not "health," "HMO," or "PPO" as the plan type	(6,297)
Plans with extreme values	(845)
Plans in the final Sample	33,689

Note. Stand-alone plans are plans that selected only one plan type. Plans with extreme values were defined as plans with 3 standard deviations above the median premium per enrollee ($105,763), or 3 standard deviations above the median commission per enrollee ($2,188), or less than $100 premium per enrollee. EIN = Employer Identification Number; HMO = health maintenance organization; PPO = preferred provider organization. Numbers in parentheses indicate the number of subtracted observations.

Method

Data and Sample

U.S. private sector employers that sponsor retirement and welfare benefit plans, covered by the Employee Retirement Income Security Act, must file Form 5500 annually with the Department of Treasury, Department of Labor, and Pension Benefit Guaranty Corporation for plans with at least 100 enrollees. Form 5500 is not mandatory for smaller plans except for those that meet certain criteria. Form 5500 contains basic plan information such as the plan name, the employer name, and the number of enrollees. Plans that contract with insurance carriers to provide benefits (i.e., not Administrative Service Only or self-funded contracts) must also file Schedule A that accompanies Form 5500. Schedule A includes the name of the insurance carrier, plan type, annual plan premiums, and the amount of commissions paid by the insurance carrier to insurance brokers and charged to the plan. Insurance carriers are required by law to provide the information to employers, who use it to complete Form 5500 Schedule A (U.S. Department of the Treasury, Department of Labor, & Pension Benefit Guaranty Corporation, 2017, 2018a, 2018b, 2018c).

The Employee Benefits Security Administration at the U.S. Department of Labor (2019) publishes online the data of Form 5500 and accompanying schedules filed by retirement and welfare benefit plans. There were 228,112 plans with both Form 5500 and Schedule A available online for the 2017 plan year. Each plan selected at least one plan type among 13 options on Schedule A line 8: health (other than dental or vision), dental, vision, life insurance, temporary disability, long-term disability, supplemental unemployment, prescription drug, stop loss, HMO (health maintenance organization) contract, PPO (preferred provider organization) contract, indemnity contract, and other. Given this study's focus on health care-related insurance plans, we excluded 132,893 plans that did not select health, dental, vision, prescription drug, HMO, or PPO as the plan type.

We further excluded 2,140 plans located outside of the United States and 18,266 plans with data anomalies (details presented in Table 1). Among the remaining 74,813 health care-related insurance plans, we focused on 34,534 plans that selected health, HMO, PPO, or a combination of them as the plan type, regardless of whether dental, vision, or prescription drug was selected. Next, we excluded 845 plans with premium or commission per enrollee greater than 3 standard deviations above the median values or less than $100 premium per enrollee, which reflected potential data errors. Our final sample included 33,689 health plans.

Variable Measurement

The commission is defined as the amount that is paid by an insurer to a licensed agent or broker for the sale or placement of the contract or policy and is charged directly to the contract or policy (U.S. Department of the Treasury, Department of Labor, & Pension Benefit Guaranty Corporation, 2017). For each plan, we obtained its size (i.e., number of enrollees) from Form 5500 line 5, commission from Form 5500 Schedule A line 2a, and premium from Form 5500 Schedule A line 10 a. Each plan's commission-to-premium ratio is measured by its commission divided by its premium. It is worth emphasizing that the commission reported on Form 5500 Schedule A pertains only to the amount paid by the insurance carrier to brokers and charged to the plan. The commission does not include any bonus paid by insurance companies or any fee paid by employers directly to brokers or to health benefit consultants.

One employer could sponsor multiple plans and file multiple Forms 5500. Each employer is identified by an Employer Identification Number (EIN; Form 5500 line 2b and Schedule A item D). Each plan has a unique plan number (Form 5500 line 1b and Schedule A item B). These identifications were used to count the total number of employers and plans. The employer's address (Form 5500 Part II line 2a) was used to examine geographic variation in commissions.

Different insurance carriers (identified by their EINs) can be affiliated with the same parent company. For example, United Health Care of California and United Healthcare Services are both affiliated with UnitedHealth Group. Based on the names of 709 unique insurance carriers (Form 5500 Schedule A line 1a) in the sample, we identified that Aetna Inc., Blue Cross Blue Shield Association, Cigna, UnitedHealth Group, and Kaiser Permanente were dominant insurance companies—each covered at least one million enrollees and operated more than 2,000 plans, and, in aggregate, covered 75% of all enrollees and operated 68% of all plans in the sample. We categorized plans carried by these five insurance companies as carried by "major" companies to differentiate them from the plans carried by other insurance companies.

Statistical Analysis

Using unweighted data, we summarized the total number of plans, employers, enrollees, and drug/dental/vision coverage, and analyzed the median and average plan size, commission, premium, and commission-to-premium ratio. Following prior literature that suggested that plan size influences contracting decisions with brokers (Hall, 2000), we grouped plans into quartiles based on plan size and examined the median commission per enrollee within each quartile. Since the commission structure is designed by insurance companies, we did similar analysis based on whether the plan was operated by a major insurance company or a nonmajor one.

Furthermore, using unweighted data, we conducted regression analysis, using the ordinary least squares method, to explain the variation in commission across plans. Consistent with prior literature, which suggests that commission is related to premium, plan size, and covered benefit (Garnick et al., 1998; Hall, 2000), we included premium, plan size, and whether a plan has dental, vision, and drug benefits in the model. Since insurance regulations vary by states and commission structure varies by insurance carriers, we tested the robustness of the results by adding the state fixed effects and/or insurance carrier fixed effects. We conducted the same regression analysis for plans with fewer than 50 enrollees because small plans face a different regulatory environment under the terms of the ACA and have relatively less resources to administer health plans or hire benefit consultants.

Finally, we analyzed the geographic variations of the commission per enrollee and commission-to-premium ratio across nine Census Divisions. For each division, we calculated the median premium per enrollee and the median commission-to-premium ratio. To measure the variation of the cost of living across divisions, we also obtained 2017 state-level Regional Price Parity (RPP) data from the Bureau of Economic Analysis (2020) and calculated a division-specific RPP index (weighted by the number of households in each state; Statista, Inc., 2019). Based on this RPP index, we adjusted the median premium per enrollee for each division.

Table 2. Descriptive Statistics, 2017.

Characteristics	Health plans
# of plans	33,689
# of employers	23,690
# of employees	11,714,778
# of insurance carriers	709
% major insurance companies	68% of plans; 75% of enrollees
Drug benefits coverage	42% of plans; 38% of enrollees
Dental benefits coverage	22% of plans; 30% of enrollees
Vision benefits coverage	16% of plans; 19% of enrollees
Average enrollees per plan	348
Median enrollees per plan (IQR)	170 (82, 319)
Average commission per enrollee	$212
Median commission per enrollee (IQR)	$178 ($83, $277)
Average premiums per enrollee	$5,302
Median premiums per enrollee (IQR)	$4,965 ($2,872, $6,795)
Average commission-to-premium ratio	5.8%
Median commission-to-premium ratio (IQR)	4.1% (2.8%, 5.7%)

Note. Major insurance companies include Aetna Inc., Blue Cross Blue Shield Association, Cigna, UnitedHealth Group, and Kaiser Permanente. The first and second numbers in the parentheses indicate 25th and 75th percentile, respectively. IQR = interquartile range.

Results

Our sample included 33,689 health plans, sponsored by 23,690 employers and covering 11.7 million enrollees (Table 2). More

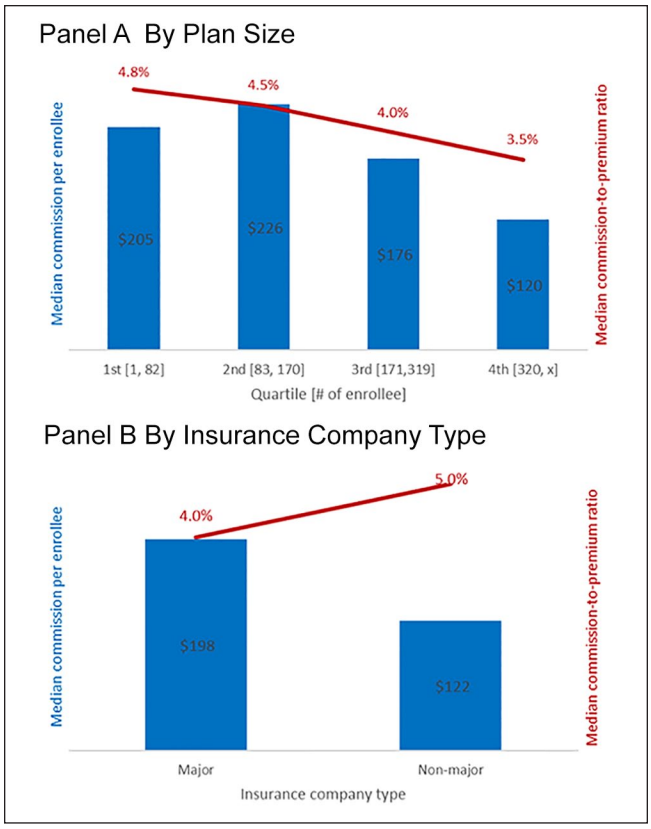

Figure 1. Median commission per enrollee and median commission-to-premium ratio, by plan size and insurance company type, 2017.
Panel A: By plan size.
Note. Filing of Form 5500 and its accompanying Schedule A, which our data was extracted from, is optional for plans with fewer than 100 enrollees.
Panel B: By insurance company type.
Note. Major insurance companies include Aetna Inc., Blue Cross Blue Shield Association, Cigna, UnitedHealth Group, and Kaiser Permanente

than a quarter of the plans had fewer than 100 enrollees. The median commission per enrollee paid to brokers was $178 and the median commission-to-premium ratio was 4.1%.

As plan size increased from the smallest quartile to the largest quartile, the median commission per enrollee increased from $205 to $226 (the second quartile) and decreased to $120; the median commission-to-premium ratio decreased steadily from 4.8% to 3.5% (Figure 1). The median commission per enrollee was higher ($198 vs. $122) and the median commission-to-premium ratio was lower (4% vs. 5%) in plans operated by major insurance companies compared with those of nonmajor insurance companies.

Our empirical models explained 52% of the across-plan variation in the commission for the full sample and 58% for small plans with fewer than 50 enrollees (Table 3). For the full sample, the plan premium was the only independent variable statistically significantly associated with plan commission across all model specifications (coefficient = 0.011; $p < .001$). For every $1,000 increase in premium, on average the commission increased by $11 to $12. For the sample with small plans, plan premium (coefficient = 0.03; $p < .001$) and plan size (coefficient: 76-90; $p < .01$) were statistically significantly associated with plan commission. Holding other factors constant, a $1,000 increase in premium was associated with a $29 to $30 increase in commission, and one more enrollee was associated with a $76 to $90 increase in commission. These results, robust to the inclusion of state and/or insurance company fixed effects, suggest that commission expressed as per-member-per-month (PMPM) might be used in addition to premium-based commission for small plans.

The median commission per enrollee and median commission-to-premium ratio varied across Census Divisions (Table 4). Middle Atlantic and Pacific divisions, with the highest cost of living (measured by division-specific RPP), had the highest median commissions per enrollee, regardless of RPP adjustment. New England division had the lowest median commission-to-premium ratio.

Discussion

This data used in this study has important limitations. First, Form 5500 was self-reported by employers and might be subject to inaccuracies. The large proportion of detected entry errors in our sample (about 20%) raises the concern that potential data entry errors exist and may bias our findings. To our knowledge, data from Form 5500 has not been used in previous academic studies and the challenges of analyzing it have been reported (Allen, 2019a). However, after identifying and excluding health plans with potential data entry errors, we generated a sample that is unlikely to have weak validity. The $132 of weighted average commission per enrollee (all commissions divided by total number of enrollees) in our study is comparable to the weighted average broker compensation reported by KFF—$107 for large employers and $265 for small ones (KFF, 2020). Using a similar methodology, the weighted average premium per enrollee in our sample (by region and plan size) is consistent with the weighted average premium per enrollee (by region, firm size, and industry) reported by the KFF Benefit Survey ($7,485 vs. $6,690; KFF, 2019). Although the premium per enrollee (at the employer level) in our study is lower than that (also at the employer level) reported by the Medical Expenditure Panel Survey (MEPS; $5,386 vs. $6,368), the difference might be partially explained by small employers (with fewer than 50 workers) accounting for 75% of the sample in MEPS (2019).

Second, information on competition level, benefit design and covered dependents was not included in Form 5500 or its accompanying schedules. Whether some health plans were overpriced or underpriced and whether commissions fairly compensate brokers for their services cannot be inferred. In addition, the omitted-variable bias risk was raised, which can lead to overestimated effects of associated factors and low explanatory power of the statistical models. Although we

Table 3. Factors Associated with Plan Commission.

Panel A: Full Sample (Dependent Variable: Plan Commission).

	(1)	(2)	(3)	(4)
	Coefficient (*SE*)	Coefficient (*SE*)	Coefficient (*SE*)	Coefficient (*SE*)
Premium	0.0113*** (0.0022)	0.0113*** (0.0031)	0.0115*** (0.0024)	0.0113*** (0.0025)
# of enrollees	−2.3391 (13.5507)	−2.3301 (16.8879)	−3.5426 (14.0437)	−5.1143 (13.2240)
Major insurance company	10,853.5947*** (1708.8880)	8,504.2134* (3,428.8246)	0.0000	0.0000
Drug benefits coverage	7,488.0708*** (1,037.4980)	6,494.9671*** (1,239.3583)	8,094.8114 (5,194.4022)	6,218.5899** (2,280.9794)
Dental benefits coverage	2,599.3545 (1,551.1618)	707.3302 (3,296.8638)	280.8695 (1,876.1909)	1,645.7453 (2,135.4136)
Vision benefits coverage	1,820.3995 (1,484.7711)	4,477.5116** (1,510.2405)	−37.0539 (1,498.8799)	1,839.9183 (1,768.9974)
State fixed effects	No	Yes	No	Yes
Insurance carrier fixed effects	No	No	Yes	Yes
Constant	18,910.0725*** (3,134.6148)	20,931.0932*** (4,286.0237)	27,039.8055*** (4,680.0990)	28,037.6685*** (4,146.2527)
Observations	33,689	33,689	33,689	33,689
Adjusted R^2 (Overall)	.5200	.5199	.5176	.5173

Note. The dependent variable of the regression model is the amount of commission and the independent variables are listed in the table. Drug, dental, vision benefits coverage were binary variables. Robust standard errors (*SE*s) were clustered at the state level for columns (2), at the insurance carrier level for columns (3), and at the state and the insurance carrier level for columns (4). The estimated constants represent the average value of the estimated fixed effects.
*$p < .05$. **$p < .01$. ***$p < .001$ (two-tailed tests).

Panel B: Plans with Fewer than 50 Enrollee (Dependent Variable: Plan Commission).

	(1)	(2)	(3)	(4)
	Coefficient (*SE*)	Coefficient (*SE*)	Coefficient (*SE*)	Coefficient (*SE*)
Premium	0.0302*** (0.0027)	0.0304*** (0.0049)	0.0293*** (0.0038)	0.0293*** (0.0040)
# of enrollee	79.6119*** (12.7964)	76.0197*** (21.1880)	89.7412*** (19.9805)	90.3745*** (21.6113)
Major insurance company	520.2359** (175.8028)	351.5623 (305.6331)	0.0000	0.0000
Drug benefits coverage	6.8635 (142.6384)	−77.8754 (207.0618)	182.2522 (176.4058)	133.5510 (200.6130)
Dental benefits coverage	1,767.7917*** (241.5374)	1,557.5078** (467.3308)	1,566.2429 (898.7418)	1,424.6550** (497.7585)
Vision benefits coverage	756.9052* (336.4330)	1,181.2442* (448.6610)	658.1845 (661.8232)	1,484.3339** (550.7034)
State fixed effects	No	Yes	No	Yes
Insurance carrier fixed effects	No	No	Yes	Yes
Constant	−386.3649*** (96.7209)	−213.8375 (178.4834)	−245.7645 (504.0059)	−273.8709 (238.8370)
Observations	5,860	5,860	5,860	5,860
Adjusted R^2 (Overall)	.5829	.5829	.5814	.5809

Note. The dependent variable of the regression model is the amount of commission and the independent variables are listed in the table. Drug, dental, vision benefits coverage were binary variables. Robust standard errors were clustered at the state level for columns (2), at the insurance carrier level for columns (3), and at the state and the insurance carrier level for columns (4). The estimated constants represent the average value of the estimated fixed effects. The median commission, premium, and commission-to-premium ratios among these 5,860 plans were $201 (IQR: $90, $349), $5,119 (IQR: $2,226, $7,713), 4.8% (IQR: 2.9%, 8.6%). IQR = interquartile range.
*$p < .05$. **$p < .01$. ***$p < .001$ (two-tailed tests).

controlled for the number of enrollees in each plan in the regression analysis, the number of enrollees is an approximation, rather than an accurate measure, of firm size.

Third, the mandatory government filings used in this study do not apply to self-insured plans, which cover the majority of workers enrolled in employer-sponsored plans (KFF, 2019). Fourth, filing of Form 5500 and its accompanying Schedule A is optional for plans with fewer than 100 enrollees but mandatory for larger plans. Therefore, the sample underrepresented small employers, and the results pertaining to small plans should be interpreted with caution due to the self-selection bias. Fifth, our regression results only indicate estimated associations. Causality was not inferred in any way. Sixth, the commission reported on Form 5500 Schedule A does not reflect the total expenditure for insurance advising and intermediation. Seventh, the commission structure, which can be either based on insurance premiums, PMPM, or both, is unavailable in the data. Finally, the location of each plan was identified by a single address of its sponsoring employer, and one employer might sponsor multiple plans located in different U.S. Census Divisions, which added noise to the geographic analysis.

Table 4. Commissions per Enrollee and Commission-to-Premium Ratios Across U.S. Census Division, 2017.

U.S. Census Division (RPP index)	Unadjusted median commission per enrollee	RPP adjusted median commission per enrollee	Median commission-to-premium ratio
New England (105.9)	$161	$152	2.8%
Middle Atlantic (109.4)	$205	$187	3.9%
East North Central (92.9)	$146	$157	3.8%
West North Central (91.7)	$125	$136	3.5%
South Atlantic (97.5)	$145	$149	4.5%
East South Central (88.2)	$157	$178	5.0%
West South Central (94.5)	$164	$174	4.9%
Mountain (97.6)	$146	$149	4.3%
Pacific (112.1)	$218	$194	4.7%

Note. New England: CT, ME, MA, NH, RI, and VT; Middle Atlantic: NJ, NY, and PA; East North Central: IN, IL, MI, OH, and WI; West North Central: IA, KS, MN, MO, NE, ND, and SD; South Atlantic: DE, DC, FL, GA, MD, NC, SC, VA, and WV; East South Central: AL, KY, MS, and TN; West South Central: AR, LA, OK, and TX; West South Central: AR, LA, OK, and TX; Mountain: AZ, CO, ID, NM, MT, UT, NV, and WY; Pacific: AK, CA, HI, OR, and WA. The values in parentheses are division-specific RPP indices. For median commission per enrollee, Mood's median tests (results not tabulated) showed that Middle Atlantic and Pacific divisions differed from all other divisions ($p < .001$) but not between each other ($p = .9$). For median commission-to-premium ratio, Mood's median tests (results not tabulated) showed that New England differed from all other divisions ($p < .001$).

Based on the data with these limitations, we found that in 2017, the median commission per enrollee was $178 for fully insured health insurance plans, which implies that a U.S. company with 500 employees could pay $89,000 to brokers. Commission per enrollee was associated with premium per enrollee. Small plans had higher commission-to-premium ratios than larger plans. This disparity might be explained by the difference in regulatory environment, the level of resources, the complexity of brokerage services, and the feasibility of competing options (e.g., directly hiring benefit consultants) between large and small employers. The variations across Census Divisions provided some evidence that the commission per enrollee was positively related to the cost of living.

The ACA established the SHOP to assist small employers in providing health insurance coverage to their workers. States can administer their own SHOP marketplaces, participate in the federally administered marketplaces, or partner with the federal government to operate marketplaces (Gabel et al., 2015). The main benefits of SHOP insurance plans include administrative flexibility and the tax credit for employers with fewer than 25 workers (Centers for Medicare and Medicaid Services, 2020). Licensed brokers must register and complete brief training before selling SHOP insurance plans (HealthCare.gov, 2020). In most states, the compensation structure for brokers who sell SHOP plans is required to be the same as that for other plans, in order to reduce their incentive to steer enrollment from SHOP plans (Blumberg & Rifkin, 2013). Small businesses, lacking human resource expertise, often rely on brokers for plan selection, employee enrollment, and dispute resolution (Gabel et al., 2013). Before the initiation of SHOP, approximately 80% of small employers used brokers; after the initiation, approximately 90% of the employers (one state) on SHOP exchanges used brokers (Blumberg & Rifkin, 2013, 2014; Gabel et al., 2013).

Commissions are currently included in "administrative expenses" from the medical loss ratio calculation (Centers for Medicare and Medicaid Services, 2015). The National Association of Insurance Commissioners has opposed this ruling, arguing that it would constrain commissions paid to brokers due to insurers' cost-containment effort (National Association of Insurance and Financial Advisors, 2020). The report by the KFF suggested that commission per member increased by 16% for small plans and remained unchanged for large plans from 2010 to 2012, a period that covers pre-implementation and postimplementation of the ACA and its medical loss ratio requirement; from 2012 to 2018, the commission per member increased by 8% for small plans and 22% for large plans (KFF, 2020). These trends, however, cannot provide evidence that commissions were not negatively affected by the inclusion of commission in the medical loss ratio due to the absence of counterfactual or earlier trends. Future studies are warranted to clarify this issue.

Commissions are charged to the plan and thus increase the premium paid by employers and workers. The positive relationship between commissions and premiums indicates that it is possible that commissions might affect premiums, which represents a potential conflict of interest for insurance brokers for these plans (Allen, 2019a, 2019b). Brokers might advise employers to contract with plans that yield the highest commissions for themselves, rather than plans that bring the best value for the employer and workers, thus leading to inefficient purchase decisions. Insurance carriers might influence broker behavior by manipulating the structure of commissions—for example, setting high commission-to-premium ratios for the plans with high profitability and low ratios for the disfavored plans (Hall, 2000).

The potential conflict of interest induced by the commission structure should be considered in the context of the growing health insurance costs for American workers and

the increasing public interest in addressing the inefficiency of health care spending (KFF, 2019; Shrank et al., 2019; The Commonwealth Fund, 2019). It is worth emphasizing, however, that our study did not examine the benefit design of insurance plans, nor did it provide any evidence on whether commission is associated with inefficiency in plan contracting decisions. The marginal benefit provided by brokers, such as the saved opportunity cost of employing human resource staff, can outweigh their cost, at least for some employers. In the automobile insurance market, where the search costs are relatively low, half of customers still purchased insurance plans through an agent (J.D. Power, 2016). Policy makers interested in addressing the potential conflict of interest, therefore, should consider improving transparency to facilitate employers making informed decisions about using brokers and purchasing plans.

The Lower Health Care Cost Act, introduced by the U.S. Senate Committee on Health, Education, Labor, and Pensions in May 2019, would require that health insurance brokers disclose all compensation associated with plan selection and enrollment before the contract is finalized (U.S. Senate, 2019). This legislation has the potential to reduce information asymmetry faced by employers and to facilitate informed decision making.

A fee-based brokerage model has emerged, in which brokers are compensated with fees directly paid by employers without receiving any payment from insurance companies (Allen, 2019a; Hall, 2000). Technological advances, by reducing search costs, offer employers new opportunities to rely on internal resources to search online and directly contract with insurance plans without using intermediaries (Schwarcz & Siegelman, 2015). Whether the fee-based brokerage model and the no-intermediary purchasing model can change the landscape of the health insurance brokerage market remains to be seen.

To conclude, insurance brokers play an active role in facilitating the contracting of fully insured health insurance plans for U.S. employers. The commission paid to brokers represents an important category of health care spending. It could indicate a potential conflict of interest that limits the efficiency of employers' plan choices and could increase health care spending for employers and workers. Policy makers may consider improving transparency to facilitate employers making efficient purchasing or broker contracting decisions. Such policy initiatives could benefit U.S. employers who are motivated to contain health care spending. The fee-based brokerage model and the no intermediary purchasing model also have the potential to improve efficiency and create value for employers and workers. Due to data limitation, the reasons behind the variations of commission across multiple dimensions, and the noncommission expenditure for insurance advising and intermediation for self-insured employers, are unexplored in this study and remain promising areas for future research.

Declaration of Conflicting Interests

Ge Bai provided consulting services to White & Case LLP. Martin Makary reports receipt of payment for a book published by Bloomsbury, USA.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Ge Bai and Martin Makary receive funding from Arnold Ventures.

References

Allen, M. (2019a, February 20). Insurers hand out cash and gifts to sway brokers who sell employer health plans. *NPR*. https://www.npr.org/sections/health-shots/2019/02/20/694719998/insurers-hand-out-cash-and-gifts-to-sway-brokers-who-sell-employer-health-plans

Allen, M. (2019b, May 24). Senators call for disclosure of perks and fees paid to health benefit brokers. *ProPublica*. https://www.propublica.org/article/senators-call-for-disclosure-of-perks-and-fees-paid-to-health-benefits-brokers

Blumberg, L. J., & Rifkin, S. (2013). *Implementation of small business exchanges in six states*. Robert Wood Johnson Foundation and Urban Institute. https://www.urban.org/sites/default/files/publication/23756/412853-Implementation-of-Small-Business-Exchanges-in-Six-States.PDF

Blumberg, L. J., Rifkin, S., & Wengle, E. (2014). *The launch of the Affordable Care Act in selected states*. Robert Wood Johnson Foundation and Urban Institute. https://nationaldisabilitynavigator.org/wp-content/uploads/state-resources/NASHP-small_group_marketplaces.pdf

Bureau of Economic Analysis. (2020). *Regional price parities by state and metro area*. https://www.bea.gov/data/prices-inflation/regional-price-parities-state-and-metro-area

Centers for Medicare and Medicaid Services. (2015). *Insurance standards bulletin series: Information*. https://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/MLR-Guidance-Earned-Premium-and-APTC-Rebates-20150527.pdf

Centers for Medicare and Medicaid Services. (2020). *Small business health options program (SHOP)*. https://www.cms.gov/CCIIO/Programs-and-Initiatives/Health-Insurance-Marketplaces/SHOP

Gabel, J. R., Stromberg, S., Green, M., Lischko, A., & Whitmore, H. (2015). An early look at SHOP marketplaces: Low premiums, adequate plan choice in many, but not all, states. *Health Affairs*, *34*(5), 2032-2039. https://doi.org/10.1377/hlthaff.2014.1370

Gabel, J. R., Whitmore, H., Pickreign, J., Satorius, J. L., & Stromberg, S. (2013). Small employer perspectives on the Affordable Care Act's premiums, SHOP exchanges, and self-insurance. *Health Affairs*, *32*(11), 2032-2039. https://doi.org/10.1377/hlthaff.2013.0861

Garnick, D. W., Swartz, K., & Skwara, K. C. (1998). Insurance agents: Ignored players in health insurance reform: After reforms, insurance agents in New Jersey still exert a good deal of influence in the individual health insurance market. *Health Affairs*, *17*(2), 137-143. https://doi.org/10.1377/hlthaff.17.2.137

Hall, M. A. (2000). The role of independent agents in the success of health insurance market reforms. *Milbank Quarterly*, *78*(1), 23-45. https://doi.org/10.1111/1468-0009.00160

HealthCare.gov. (2020). *Agents and brokers: Sell marketplace health insurance for 2019*. https://www.healthcare.gov/agents-and-brokers-register/

J.D. Power. (2016). *Digital are the channels of choice for today's auto insurance shopper; digital leaders setting the pace for premium growth, says J.D. Power study*. https://www.jdpower.com/business/press-releases/2016-us-insurance-shopping-study

Kaiser Family Foundation. (2019). *Employer health benefits: 2019 Annual survey*. http://files.kff.org/attachment/Report-Employer-Health-Benefits-Annual-Survey-2019

Kaiser Family Foundation. (2020). *Broker compensation by health insurance market*. https://www.kff.org/health-costs/state-indicator/health-insurance-broker-compensation

Karaca-Mandic, P., Feldman, R., & Graven, P. (2018). The role of agents and brokers in the market for health insurance. *Journal of Risk and Insurance*, *85*(1), 7-34. https://doi.org/10.1111/jori.12139

Medical Expenditure Panel Survey. (2019). *Insurance/employer component*. https://meps.ahrq.gov/survey_comp/Insurance.jsp

National Association of Insurance and Financial Advisors. (2020). *Medical loss ratio: Restoring consumer access to health insurance agent services*. https://solutions.naifa.org/medical-loss-ratio

Pozen, R., & Vinjamoori, A. (2015). Self-funding of health-care plans by small firms: Risk and reforms. *Risk Management and Insurance Review*, *18*(2), 243-254. https://doi.org/10.1111/rmir.12046

Schwarcz, D., & Siegelman, P. (Eds.). (2015). *Research handbook on the economics of insurance law*. Edward Elgar Publishing. https://www.e-elgar.com/shop/usd/research-handbook-on-the-economics-of-insurance-law-9781782547150.html

Shrank, W. H., Rogstad, T. L., & Parekh, N. (2019). Waste in the U.S. health care system: Estimated costs and potential for savings. *Journal of the American Medical Association*, *322*(15), 1501-1509. https://doi:10.1001/jama.2019.13978

Statista Inc. (2019). *Number of households in the United States in 2018, by state*. https://www.statista.com/statistics/242258/number-of-us-households-by-state/

The Commonwealth Fund. (2019). *Trends in employer health care coverage, 2008-2018: Higher costs for workers and their families*. https://www.commonwealthfund.org/sites/default/files/2019-11/Collins_state_premium_trends_2008_2018_db_1.pdf

U.S. Census Bureau. (2019). *Health insurance coverage in the United States: 2018*. https://www.census.gov/content/dam/Census/library/publications/2019/demo/p60-267.pdf

U.S. Department of Labor. (2019). *2017 Form 5500 datasets*. https://www.dol.gov/agencies/ebsa/about-ebsa/our-activities/public-disclosure/foia/form-5500-datasets

U.S. Department of the Treasury, Department of Labor, & Pension Benefit Guaranty Corporation. (2017). *Instructions for Form 5500*. https://www.dol.gov/sites/dolgov/files/ebsa/employers-and-advisers/plan-administration-and-compliance/reporting-and-filing/form-5500/2017-instructions.pdf

U.S. Department of the Treasury, Department of Labor, & Pension Benefit Guaranty Corporation. (2018a). *Form 5500 Annual Return/Report of Employee Benefit Plan*. https://www.dol.gov/sites/dolgov/files/EBSA/employers-and-advisers/plan-administration-and-compliance/reporting-and-filing/form-5500/2018.pdf

U.S. Department of the Treasury, Department of Labor, & Pension Benefit Guaranty Corporation. (2018b). *Instructions for Form 5500-SF*. https://www.dol.gov/sites/dolgov/files/EBSA/employers-and-advisers/plan-administration-and-compliance/reporting-and-filing/form-5500/2018-sf-instructions.pdf

U.S. Department of the Treasury, Department of Labor, & Pension Benefit Guaranty Corporation. (2018c). *Schedule A (Form 5500). Insurance Information*. https://www.dol.gov/sites/dolgov/files/EBSA/employers-and-advisers/plan-administration-and-compliance/reporting-and-filing/form-5500/2018-schedule-a.pdf

U.S. Senate. (2019). *S.1895: Lower Health Care Costs Act*. https://www.congress.gov/bill/116th-congress/senate-bill/1895