

Plan Management Navigator

Analytics for Health Plan Administration



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ECONOMIES OF SCALE IN HEALTH INSURANCE IN 2020

Conclusion

If calculated based on *total* administrative cost, excluding Miscellaneous Business Taxes, economies of scale of administrative expenses were significant for both Blue Cross Blue Shield Plans (Blue) and Independent / Provider - Sponsored (IPS) plans. But for the *combined* universe of 14 Blues and 18 IPS plans (one IPS plan in the 2021 universe was excluded as an outlier), economies of scale for total administrative expenses were not significant. Individual functions displayed economies of scale in each universe. The Larger Plan edition, summarized in the mid-November edition of *Navigator* also suggested Economies of Scale.

Health plans operate numerous functions and each of them vary in their apparent cost sensitivity to scale. Shown in Figure 1, functions composing a range of approximately 13.2% to 44.8% of health plan administrative expenses demonstrated economies of scale in 2020, the most recently available year. The scale slope is relatively modest so that a doubling of the plan will lead to those costs subject to economies of scale that are 83.3% to 88.0% of the pre-doubling PMPM costs. The proportion of the expenses subject to economies of scale, the functions subject to scale and their sensitivity to scale, varied by whether the set of plans analyzed was IPS plans, Blue Plans or the combination of both.

From a strategic perspective, this means that administrative and technical economies of scale of is unlikely to create an overwhelming competitive advantage. For instance, suppose a health plan operated at \$55 PMPM. Using the Combined universe model shown in Figure 1, 13.2% or \$7.24 PMPM would be subject to economies of scale and, if the enterprise doubled in size, \$0.87 or 1.6% would be saved through pure scale advantages. While an additional \$0.87 would be welcomed by any CFO, the modest effects of scale implies that firms of modest scale can be on a reasonably similar competitive footing as their larger peers on administrative expenses.

Figure 1. Economies of Scale Summary

Administrative Expenses Subject to Economies of Scale and BCG Slopes
BCBS, IPS, and Combined

	Blue Cross Blue Shield Plans	Independent / Provider - Sponsored Plans	Combined Plans
Percent of Administrative Expenses Subject to Scale	44.8%	22.2%	13.2%
BCG Scale Slope of Functions Subject to Scale	83.3%	84.8%	88.0%

That economies of scale are limited in the long term does not mean that cost stickiness cannot affect costs in ways that mimic the presence of fixed costs and economies of scale. It takes time for health plans to adapt to changing membership volumes. If membership declines, staffing remains until normal attrition and forced reductions occur. Growth has a similar effect in that managements may be conservative in building capacity given that growth projections are usually speculative.

Background

While the largest costs for health plans are health benefits, not every benefit plan sponsor pays health plans to assume health benefit variance risk. For Blue Cross Blue Shield Plans, generally about 50% of members are fully-insured and, among Independent / Provider Sponsored plans, those ratios are commonly 60-70%. By contrast, 100% of all members and their sponsors pay health plans to assume responsibility for administrative activities of their health benefit programs.

For this reason, health plans are vitally interesting in managing their administrative costs. Understanding economies of scale can quantify the feasible parameters of such management and offer strategic insights for the enterprise.

The *Sherlock Benchmarks* provide a robust data set to evaluate economies of scale in health insurance. It is populated by a large sample, is from a single year, is uniquely granular, and is carefully validated.

Economies of scale occurs when per unit costs decline as volume of output increases. Because the “output” of a health plan is health coverage services to its members, volume is defined as member months. The costs that are the subject of this analysis are administrative, classified by function: Claims Adjudication, Customer Services, Enrollment and so forth. So, our analysis of economies of scale is of administrative costs expressed in units of Per Member Per Month (PMPM). Each plan in the study reported its costs segmented into approximately seventy functions and sub-functions, allowing each of the activities to be analyzed individually.

An analysis of economies of scale is complicated by the extraneous factor of differences in the product mixes between the health plans. Fortunately, each organization participating in the *Sherlock Benchmarks* reports all functional costs segmented by product, thereby allowing us to eliminate the effects of product mix differences. To some degree, the adjustment for product differences also mutes differences in demographics since senior products are segmented from those sold to working age people, which are in turn segmented from Medicaid populations. Within the Commercial products, since ASO products are segmented from Insured products so, to some degree, product-mix adjustments also adjust for group size as well.

Figure 2. Economies of Scale Summary

Slopes of Significant Administrative Expense Economies of Scale

	Blue Cross Blue Shield Plans	Independent / Provider - Sponsored Plans	Combined Plans
(c) Other Rating and Underwriting	∅	↓	↓
(b) Member and Group Communication	∅	∅	↓
(c) Other Marketing	↓	∅	∅
4. External Broker Commissions	∅	∅	↑
(a) Media and Advertising	↓	∅	∅
6. Provider Network Management and Services	∅	↓	↓
(a) Provider Relations Services	∅	↓	∅
(b) Provider Contracting	↓	∅	↓
(1) Provider Configuration	∅	∅	↓
(c) Disease Management	∅	∅	↓
(f) Quality Components	↑	∅	∅
(i) Other Medical Management	↓	∅	∅
9. Customer Services	∅	∅	↑
10. Claim and Encounter Capture and Adjudication	∅	↓	∅
(d) Other Claim and Encounter Capture and Adjudication	∅	↓	∅
11. Information Systems Expenses	↓	∅	∅
(b) Applications Maintenance	↓	∅	∅
(1) Benefit Configuration	↓	∅	↓
(2) Other Applications Maintenance	∅	∅	↑
(d) Security Administration and Enforcement	↓	∅	∅
12. Finance and Accounting	↓	↓	↓
(b) Other Finance and Accounting	↓	↓	↓
13. Actuarial	∅	↓	↓
14. Corporate Services Function	↓	∅	∅
(a) Human Resources	↓	∅	∅
(b) Legal	↓	∅	∅
(1) Compliance	∅	↓	↓
(4) Fraud, Waste & Abuse	↓	∅	∅
(5) All Other Legal	↓	↓	↓
(e) Audit	↓	↓	∅
(h) Printing and Mailroom	∅	↓	↓
15. Corporate Executive & Governance	∅	↓	∅
Subtotal Expenses	↓	↓	∅
17. Miscellaneous Business Taxes	∅	↑	↑

So, put simply, we determine whether economies of scale exist by regressing mix-adjusted cost values in each function against member months. We consider the relationship between membership and costs to be significant if it displays P-Values of less than 10%. Suppose a regression yields a 10% P-Value: it can be interpreted to mean “Assuming that there weren’t economies of scale, you’d obtain the observed difference or more in 10% of such studies due to random sampling error.” In other words, the lower the P-Value, the more reliable the results. The BCG (Boston Consulting Group) Slope is an intuitive way of expressing the slope of scale: it is the percent of the pre-doubling unit costs that the activity will exhibit if the plan doubles in size.

Figure 2 summarizes all functions that were sensitive to scale. A down arrow (↓) indicates that the function within the identified universe is subject to economies of scale. An up arrow (↑) indicates that the function is subject to diseconomies of scale in that universe. A null symbol (∅) indicates that the function is not subject to either economies of scale or diseconomies of scale in that universe but is in at least one other universe.

PULSE In-depth Analysis

This *Navigator* is a summary of an analysis available exclusively to subscribers to our *PULSE* newsletter and participants in the *Sherlock Benchmarks*. The annual subscription to *PULSE* is available for \$395. Its greater detail includes:

- Analyses of *each* function (e.g., Information Systems, Actuarial, Finance, etc.), including P-Values and slopes.
- More detail concerning our methodology, including the mix-adjustment.
- Analyses of three universes: Blue Cross Blue Shield plans, Independent / Provider-Sponsored plans and a universe combining all these organizations.
- An example showing the application of the economies of scale results in the case of a doubling of the size of a plan in that universe.
- A description and example of the process for the more general application of the results of business combinations and internal growth that would give rise to changes in health plan size.

Additional information on the *PULSE* newsletter and subscriptions are found here. <https://sherlockco.com/pulse/>.

Sherlock Benchmarks: Participation and Licensing

Both this *Plan Management Navigator* and the *PULSE* analysis rely on the results of the 2021 *Sherlock Benchmarks* for universes of Blue Cross Blue Shield Plans and Independent/Provider-Sponsored health plans, our 24th annual study.

In this analysis, all data is for the 2020 calendar year and has been carefully validated both by us and by the plans themselves. Collectively, the 32 plans served 51 million Americans. The range of membership was from 329,000 to over 5 million among Blue Plans and about 52,000 to 1.6 million among IPS plans. In addition to the Blue Cross Blue Shield and Independent / Provider - Sponsored universes, we also have universes of Medicare, Medicaid, and Larger plans.

Your health plan is invited to participate in the 2022 cycle based on 2021 results. Plans in each of the above universes have already signed agreements to participate in the 2022 cycle.

For those that cannot participate, licensing is available. Please see the following link <https://sherlockco.com/sherlock-benchmarks/> for additional information on the *Sherlock Benchmarks*. The Reports shown on that page are also the Reports received by the participants.

Contact

Please do not hesitate to contact us with questions concerning this analysis, *PULSE*, the *Sherlock Benchmarks* on which it is based, or your interest in licensing the 2021 edition or participating in the 2022 *Sherlock Benchmarks*. We can be reached at sherlock@sherlockco.com or (215) 628-2289.

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