

# Plan Management Navigator

## *Analytics for Health Plan Administration*



Healthcare Analysts

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## ECONOMIES OF SCALE IN HEALTH INSURANCE IN 2019

### *Conclusion*

Economies of scale can have an important effect on administrative costs in health insurance, though this effect is probably not decisive. As shown in Figure 1, the 2020 universe of Independent / Provider-Sponsored (IPS) plans (composed of 2019 results) demonstrates the strongest case for the benefits of economies of scale in that it affected 72.7% of administrative expenses. The scale slope (or BCG slope) is relatively modest so that a doubling of the plan will lead to those costs subject to economies of scale that are 83.8% of the pre-doubling PMPM costs.

By comparison, the Blue Cross Blue Shield (BCBS) universe of Plans had 43.2% of their administrative expenses subject to economies of scale with a BCG slope of 85.4%. A combined universe of BCBS and IPS plans yielded 25.7% of administrative expenses subject to economies of scale with a scale slope of 87.0%. Each of these values are calculated after eliminating the effect of product mix differences between each plan and each universe with which it is grouped. Each universe has a different product mix.

From a strategic perspective, it is unlikely that administrative and technical economies of scale can create a decisive competitive advantage. For instance, suppose a health plan operated at \$50 PMPM. Using the combined universe model shown in Figure 1, \$14.12 PMPM would be subject to economies of scale and, if the enterprise doubled in size, \$1.84 would be saved through pure scale advantages. An additional \$1.84 per member per month would be welcomed by any CFO in that it expands the available strategic options to the plan.

But context matters: \$1.84 is less than one-half of one percent of monthly insured premiums. Purchasing health insurance can be complex, and changes of this magnitude, however deployed, may not be perceptible to consumers. The modest effects of scale combined with other attributes, implies that smaller firms can be on much the same competitive footing on administrative expenses as their larger peers.

**Figure 1. Economies of Scale**

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	43.2%	72.7%	25.7%
BCG Scale Slope of Functions Subject to Scale	85.4%	83.8%	87.0%

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## *Background*

While the largest costs for health plans are health benefits, not every benefit plan sponsor pays health plans to assume health benefit responsibilities. For Blue Cross Blue Shield plans, almost 50% of members are fully-insured and, among Independent / Provider-Sponsored plans, that ratio is closer to two-thirds. By contrast, every member and every benefit plan sponsor pays health plans to provide administrative activities.

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 occur when per unit costs decline as volume of output increases. Because the “output” of a health plan is health coverage services to its members, the specific definition of expenses subject to economies of scale is administrative costs, expressed in units of Per Member Per Month (PMPM). The costs that are the subject of this analysis are administrative: claims, customer services, enrollment and so forth. Each participating plan reports its costs segmented into more than sixty 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.

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. Economies of Scale**

Slopes of Significant Administrative Expense Economies of Scale

	Blue Cross Blue Shield Plans	Independent / Provider - Sponsored Plans	Combined Plans
2. Marketing	↓	∅	∅
(c) Other Marketing	↓	∅	∅
(a) Account Services	∅	↓	∅
(c) Other Sales	∅	↑	↑
4. External Broker Commissions	∅	↑	↑
(a) Media and Advertising	↓	∅	∅
6. Provider Network Management and Services	∅	↓	↓
(a) Provider Relations Services	∅	↓	∅
(b) Provider Contracting	↓	↓	↓
(1) Provider Configuration	∅	↓	↓
7. Medical Management / Quality Assurance / Wellness	∅	↓	∅
(a) Precertification	∅	∅	↓
(b) Case Management	↑	∅	∅
(c) Disease Management	∅	↓	↓
(e) Health and Wellness	∅	↓	∅
(g) Medical Informatics	∅	↓	∅
(i) Other Medical Management	↓	∅	∅
(c) Grievances and Appeals	↓	∅	∅
8. Enrollment / Membership / Billing	∅	↓	↑
9. Customer Services	∅	↓	∅
(a) Member 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	↓	∅	↓
(c) Applications Acquisition and Development	∅	↓	∅
(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) All Other Legal	↓	∅	∅
(c) Facilities	↓	∅	↓
(e) Audit	↓	∅	∅
(h) Printing and Mailroom	↓	∅	∅
(i) Risk Management	∅	↓	∅
16. Association Dues and License/Filing Fees	∅	∅	∅
Subtotal	↓	↓	∅
17. Miscellaneous Business Taxes	∅	↑	↑
Total	↓	∅	∅

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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, including P-Values and slope values.
- More detail concerning our methodology, including the mix-adjustment.
- Analyses of universes of Blue Cross Blue Shield plans, Independent / Provider – Sponsored plans and a universe of combined organizations.
- The application of the economies of scale results in the case of a doubling of the size of a plan in that universe.
- Process for the more general application of the results to all sizes of business combinations and internal growth.

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

### *Sherlock Benchmarks: Participation and Licensing*

Both this *Navigator* and the *PULSE* analysis rely on the results of the 2020 *Sherlock Benchmarks* for universes of Blue Cross Blue Shield Plans and Independent/Provider-Sponsored health plans, our 23rd annual study.

All data is for the 2019 calendar year and has been carefully validated both by us and by the plans themselves. Collectively, the 32 plans served 58 million Americans. The range of membership was over 360,000 to more than 10 million among Blue Plans and over 88,000 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.

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.

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## *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 2020 edition or participating in the 2021 Sherlock Benchmarking studies. We can be reached at [sherlock@sherlockco.com](mailto:sherlock@sherlockco.com) or (215) 628-2289.

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