Plan Management Navigator
Analytics for Health Plan Administration

Healthcare Analysts

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Please see page 6 for our invitation to participate in the 2024 Sherlock Benchmarks.

Automation and Operational Drivers

Introduction

This *Plan Management Navigator* attempts to discover how automation correlates with some of the central functions of health plan operations. For this analysis, we used Total Claims Auto-Adjudication as a stand-in for automation of each function we analyzed even if it did not directly relate to that function. While the use of auto-adjudication is not directly related to other functions, we thought that perhaps it would be an indicator to overall automation given that other metrics of automation were limited or were ill-defined.

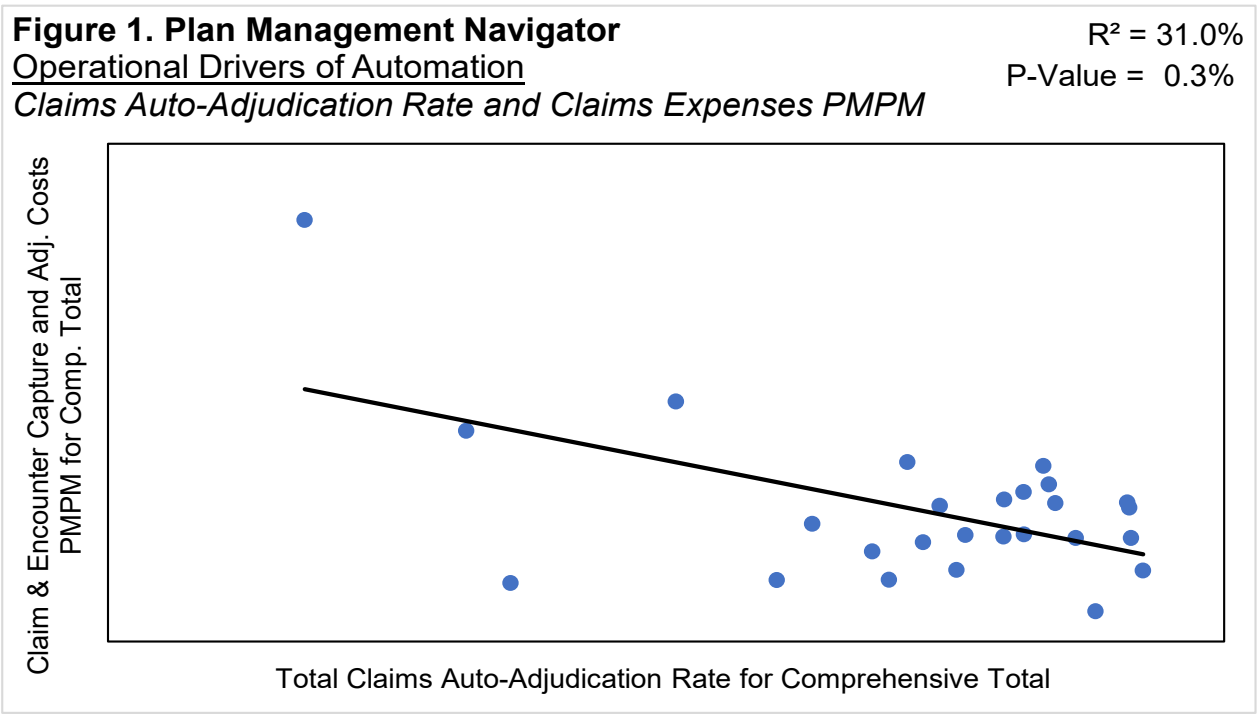
This analysis includes the results of all 31 plans that participated in the 2023 *Sherlock Benchmarks*. Note that not all plans supplied the operational metrics within this analysis or serve all products benchmarked.

Direct Effects of Auto-Adjudication

Health insurers have always processed claims, and were entirely manually prior to the capabilities of modern information systems. At present, among Blue Cross Blue Shield Plans, a median of 88.1% of claims are auto-adjudicated.

Auto-Adjudicated claims are those claims adjudicated by the claims processing system without manual intervention. Such claims are without regard to the date of processing and also include claims that fail routine auto-adjudication, but are instead processed by scripts. Scripts are mini-programs that extend existing auto-adjudication rules.

Figure 1. Plan Management Navigator
Operational Drivers of Automation
Claims Auto-Adjudication Rate and Claims Expenses PMPM

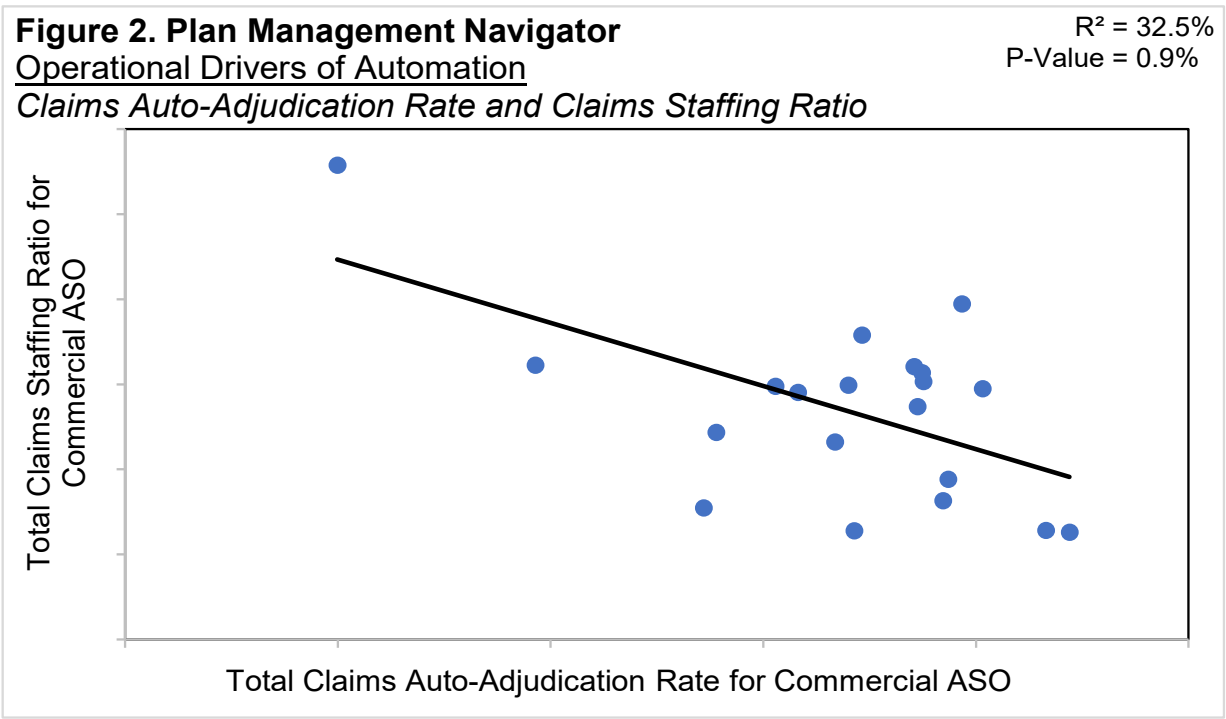


Since auto-adjudicated claims processed through Information Systems require fewer manually processed claims, Figure 1 shows a significant (and wholly-expected) relationship with auto-adjudication rates in the Claims area. The analysis of total Claims Auto-Adjudication Rate and Comprehensive Total Claims costs yielded a P-Value of 0.3% and a R^2 of 31.0%. The inverse relationship implies that higher the rate of auto-adjudicated claims the lower the costs in the Claim and Encounter Capture and Adjudication function. Similar auto-adjudication cost / relationships are found in both ASO and Commercial Total claims expenses.

Both in this figure and in all other analyses we focused on statistically significant relationships. By significant, we mean relationships with P-Values of 10% or less. (A P-Value is a measure of the chance that the modeled relationship could arise from an unrepresentative sample. Normally it is not expressed as a percent though we do so here.) The R^2 describes the degree to which differences between the data points are explained by the regression line. We think most of the relationships illustrated here and below make intuitive sense, but their slopes add to the users' quantification of these relationships between operating results and expenses.

Since staffing is associated with costs in many health insurance functions, a similar relationship is indicated in staffing. Accordingly, the higher the claims auto-adjudication rate, the fewer staff are found in the Claims function, both measures from the Commercial ASO product. This relationship is shown in Figure 2 with a P-Value of 0.9% and R^2 of 32.5%.

Figure 2. Plan Management Navigator
Operational Drivers of Automation
Claims Auto-Adjudication Rate and Claims Staffing Ratio



Auto-Adjudication as an Indicator of Automation Outside of the Claims Area

Automation is a likely contributor to lower costs in all functional areas. But, other than auto-adjudication, no other measures of function-specific automation are available. So we have used auto-adjudication as a measure of the degree of automation of other functions. The idea behind this conjectural approach is that the more automated a plan is in one activity, the more automated it is likely to be in others. For instance, when we asked Blue Cross Blue Shield Plans to allocate Information Systems Application Costs by the functional area that those applications support, Enrollment and Customer Services exhibited approximately the same proportion of IS application costs as Claim and Encounter Capture and Adjudication function when added to the IS allocations. This is about 13-19%, depending on the function and whether we are using medians or means.

Enrollment / Membership / Billing is one function in which we found a significant relationship with the auto-adjudication rate and costs in that function. Figure 3 depicts this relationship: the greater the Medicare Advantage auto-adjudication rate the lower the Medicare Advantage Enrollment / Membership / Billing PMPM costs. (Plans often report metrics by product.) The R^2 was 34.3% and P-Value was 0.8%.

As we noted in the Claims analysis, staffing ratios are associated with costs in various functions. The regression analysis of Medicare Enrollment / Membership / Billing Staffing Ratios and Medicare Auto-Adjudication Rate showed a relationship with a P-Value of 4.0% and R^2 of 22.5%. (Staffing for Medicare is inferred by dividing PMPM Costs by Total Costs per FTE, then multiplying by 120,000.) Shown in Figure 4 on the next page, the relationship shows that the greater the Auto-Adjudication Rate, the lower the staffing ratio in Enrollment.

Figure 3. Plan Management Navigator
Operational Drivers of Automation
Claims Auto-Adjudication Rate and Enrollment Expenses PMPM

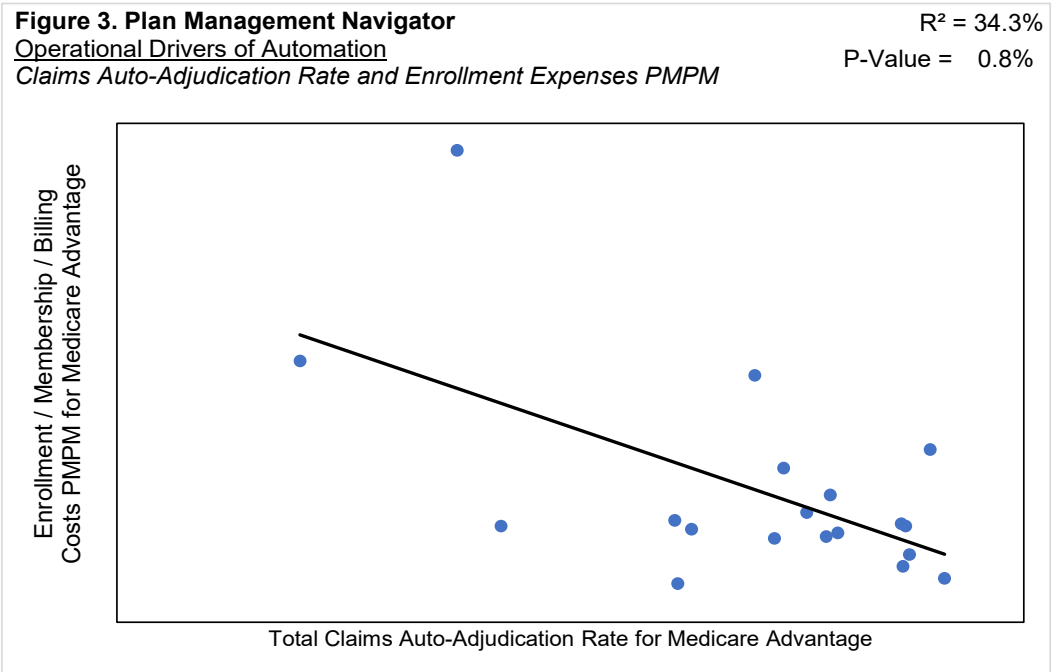
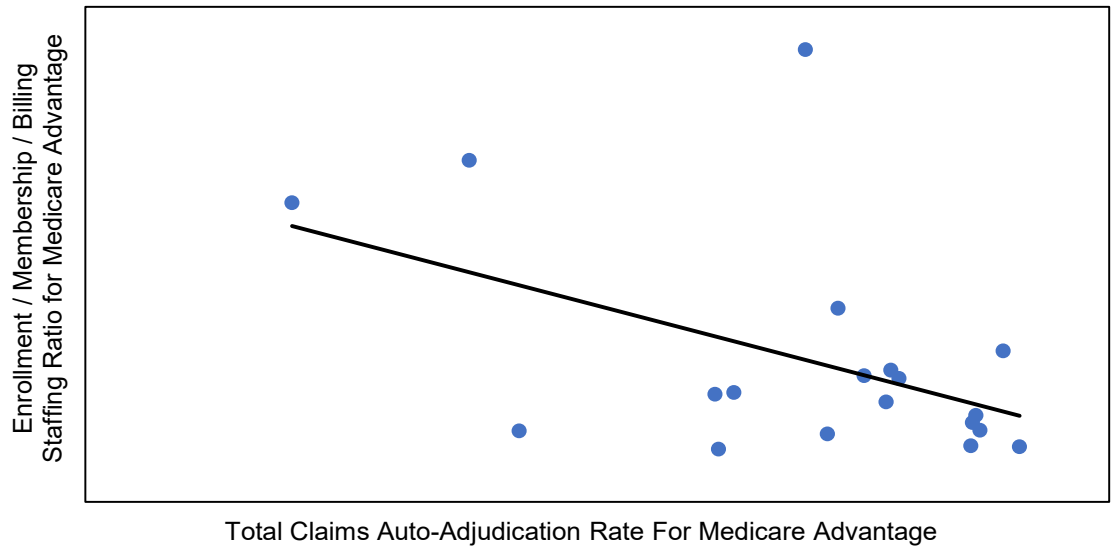


Figure 4. Plan Management Navigator
Operational Drivers of Automation
Claims Auto-Adjudication Rate and Enrollment Staffing Ratio

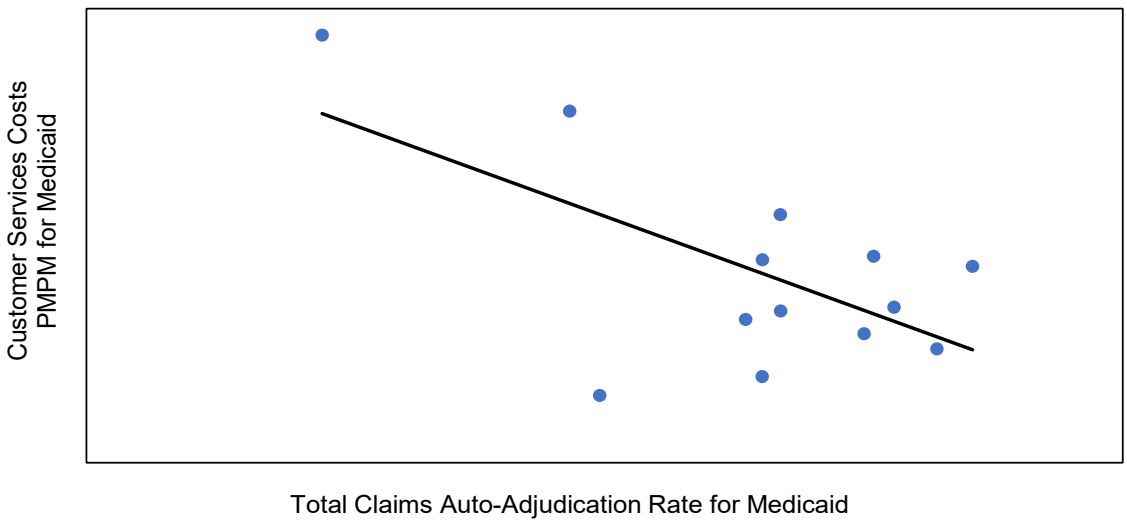
R^2 = 22.5%
P-Value = 4.0%



We also tested the relationship between Auto-Adjudication Rate with Customer Services per member expenses. This could arise through the introduction of member services portals that transfer manual responses to members in the Customer Services area to automated responses in the Information Systems function. There was a significant correlation between the two variables found within the Medicaid product. The R^2 was 38.9% and P-Value was 2.3%, shown in Figure 5. Higher Auto-Adjudication rates was associated with lower Customer Services costs.

Figure 5. Plan Management Navigator
Operational Drivers of Automation
Claims Auto-Adjudication Rate and Customer Services Costs PMPM

R^2 = 38.9%
P-Value = 2.3%



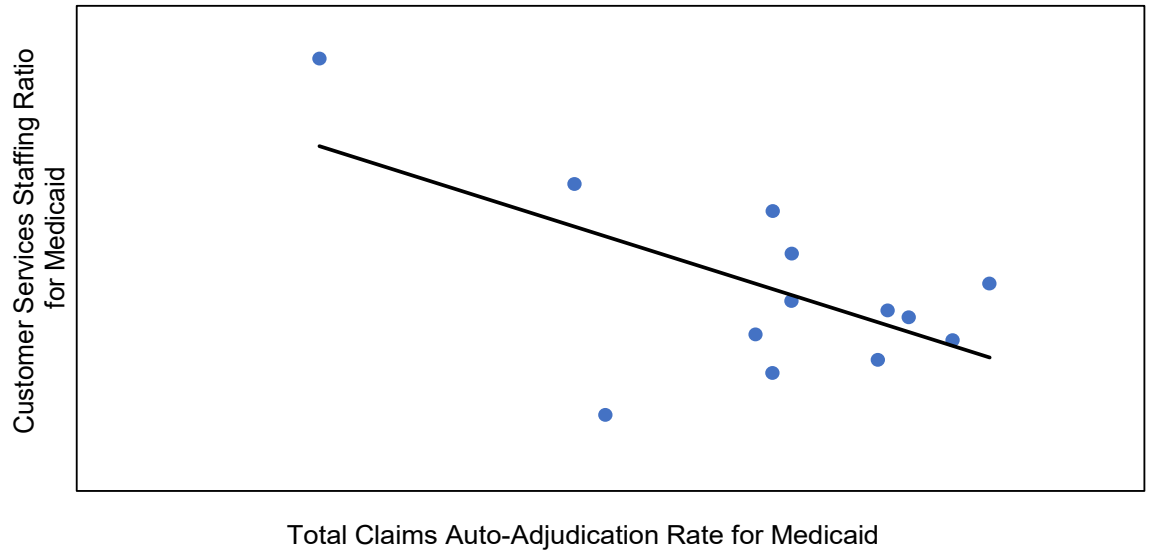
Similarly, higher auto-adjudication was associated with lower Customer Services staffing ratios for the Medicaid product. The negative relationship meant that the greater the auto-adjudication, the lower the customer services staffing ratio. The R^2 was 37.2% and the P Value was 2.7%, seen in Figure 6.

Conclusion

Financial metrics reflect underlying operational choices a company makes, and the strategic decision to automate may be a key component of those decisions. This edition of *Plan Management Navigator* shows that automation, measured as auto-adjudication, is associated with lower costs and sometimes staffing for the Claim and Encounter Capture and Adjudication area.

Because it is available, we wondered whether autoadjudication was also a measure of the overall automation of health plans. Sometimes it does for functions like Customer Services and Enrollment/Membership/Billing. In other words, higher autoadjudication sometimes had a statistically significant relationship with costs and underlying staffing in unrelated functions.

Figure 6. Plan Management Navigator R^2 = 37.2%
Operational Drivers of Automation P-Value = 2.7%
Claims Auto-Adjudication Rate and Customer Services Staffing Ratio



Invitation to Participate in the 2024 Sherlock Benchmarking Study

The highly valid, well-populated *Sherlock Benchmarks* provide an unbiased ranking and helps prioritize cost management activities to have the greatest impact on improving your health plan's overall operating performance.

The 2024 study will be the 27th consecutive year, reflecting a cumulative experience of 1,000 health plan years. Health plans serving more than 200 million Americans are either licensees or participants in the *Sherlock Benchmarks* from June 2021. Plans using the Benchmarks include most Blue Cross Blue Shield plans, large public companies, Independent / Provider-Sponsored health plans, Medicare plans and Medicaid plans, as well as their consultants.

The survey for universe of Independent / Provider – Sponsored plans will launch in late March. The eleven IPS plans participating in the 2023 cycle served 8.3 million people. So far, the 12 plans serving 9.5 million members are participating in 2024. Of the 10 largest non-specialty Health Plan Alliance plans, 5 are participating, including 4 of the largest 5. Participants serve 56% of non-specialty HPA members and 19% of such plans. Similarly, the 2024 cycle participants are 32% of Alliance of Community Health Plan non-staff model plans that serve 57% of those members.

For the 2023 cycle of the *Sherlock Benchmarks*, of the 33 U.S.-based Blue Cross Blue Shield primary licensees, seventeen plans serving approximately 52.2 million people, participated in the *Sherlock Benchmarks* for Blue Cross Blue Shield Plans. The surveys will be distributed to participants this week. Fifteen Plans serving 63% of all Blue membership other than Elevance will participate in the 2024 cycle. **The Blue Cross Blue Shield universe survey will launch this week.**

The Medicare and Medicaid universes will be launched on June 4th, after the Medicare bids are due. Please reach out to us if you're interested in participating in any of these universes.

The *Sherlock Benchmarks* have been called the "Gold Standard" by leading health care consultants. Report publication begins in late June but varies by universe. Participation entails efforts on the part of the plans since actionable outputs require relatively granular inputs. However, the cost is relatively modest.

The *Sherlock Benchmarks* are also available to license. Please reach out to Douglas Sherlock at sherlock@sherlockco.com or 215-628-2289 if you are interested in either participation or licensing. *You will be among good company.*