



WHITE PAPER

# The Dual ROI of Scheduling Optimization in Diagnostic Imaging

Learn how outcome-based scheduling strengthens access, utilization and financial performance.

[gebbs.com](http://gebbs.com)



# The Industry Challenge: Efficiency Gaps in Diagnostic Imaging Scheduling

02

Diagnostic imaging operations face a series of persistent operational inefficiencies. Scanner assets, technologist staffing and administrative scheduling processes are all subject to variability, mismatch and sub-optimal slot utilisation.

Common challenges include:

- Under-utilised capacity (for example, machines idle during scheduled clinic hours);
- Staffing inefficiencies (techs idle, schedulers over-resourced); and
- Inconsistent scheduling performance (variability in no-show rates, cancellations, rework).

These gaps produce real cost implications: idle scanner time costs margin, delayed patient access reduces throughput (and may force overtime or premium staffing), and excessive administrative burden increases overhead relative to output.

From an industry benchmark lens, imaging volume is rising while capacity pressures mount: projections show national imaging utilisation increasing by 16.9 % – 26.9 % by 2055 relative to 2023, assuming current per-person rates persist.

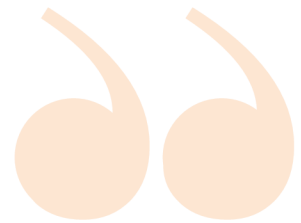
In parallel, outpatient imaging continues to shift care settings: roughly 40 % of radiology volume is now performed in outpatient imaging centers rather than acute-care hospitals. This shift magnifies scheduling complexity, as sites may differ in hours, staffing models and patient demographics.

In short, scheduling inefficiencies in diagnostic imaging are a major operational and financial risk, but simultaneously, also a major opportunity for improvement.



Projections show national **imaging utilisation increasing by 16.9 % – 26.9 % by 2055 relative to 2023**, assuming current per-person rates persist.

[Source: National Library of Medicine](#)



# Balancing Cost Reduction and Volume Growth

Scheduling optimisation must be conceived not merely as a cost-reduction lever but as a growth engine. This is the essence of Dual ROI: by driving operational efficiency you reduce cost; by freeing capacity and improving scheduling performance you increase volume. Combined, the two deliver a return greater than either alone.

$$\text{Dual ROI} = \frac{(\text{Increased Volume Revenue} + \text{Cost Savings})}{\text{Scheduling Investment}}$$

## Illustrative example:

Imagine a mid-sized imaging facility invests \$50K in scheduling optimisation (new process + technology + training). As a result, annual appointment volume rises by 10 % on a base of 20,000 scans (2,000 additional scans) with an average margin per scan of \$150 → \$300K incremental revenue. At the same time, scheduling administrative cost is reduced by \$100K annually.

### So if we do the calculations

- \$300K + \$100K = \$400K
- Investment = \$50k
- Dual ROI = 8x

That means every dollar invested yields eight dollars of combined cost savings and incremental revenue.

Modest efficiency gains in scheduling can compound because imaging operations often have high fixed cost (scanner depreciation, fixed staffing, facility overhead). **Capturing even a small uplift in capacity utilisation or reducing waste has outsized impact on margin.**

**The key operational frame here is:** scheduling investment unlocks capacity, capacity delivers volume, volume spreads fixed cost, and savings improve margin.

## Real-world Examples

# Capitol Imaging's Scheduling Transformation

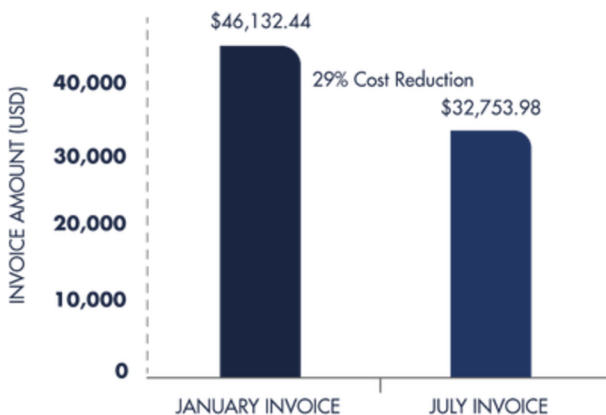
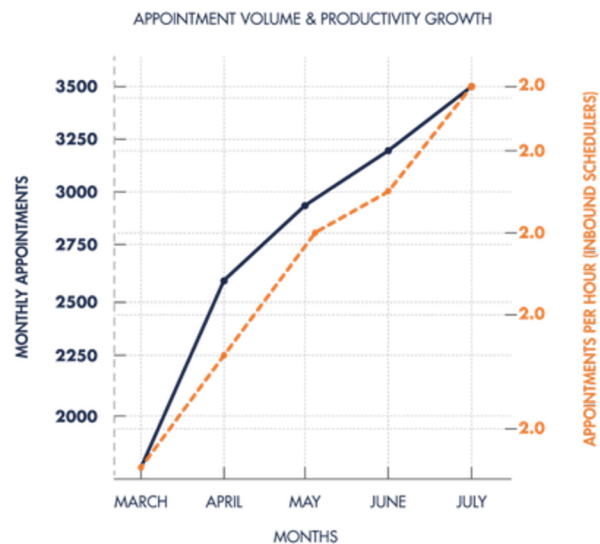
04

Capitol Imaging, a leading medical imaging provider, faced rising operational costs and slow productivity ramp-up in their scheduling operations. **Within just 60 days of partnership with GeBBS, they transformed their scheduling model, improved productivity, and achieved substantial cost savings** — all while strengthening trust and collaboration.

### Proven Outcomes

#### 1. Productivity Growth

GeBBS drove sustained increases in appointment volume and scheduling efficiency, resulting in early double productivity per hour from March to July.



### Financial Impact

By July 2025, the new model reduced overall client cost by 29%, while maintaining healthy revenue per hour:

January invoice: \$46,132.44  
July invoice: \$32,753.98

## ROI Framework

# Measuring the Financial Impact of Scheduling Optimisation

05

Tracking the following metrics along with implementing a clear ROI framework, can help imaging centers turn scheduling optimisation into an operational and quantifiable initiative that aligns with both cost and volume goals.

## Key Metrics to Track

<b>Cost per Appointment</b>	Total scheduling cost divided by the number of appointments scheduled.
<b>Appointments per Scheduler Hour</b>	Number of confirmed appointments scheduled per scheduling resource hour.
<b>Revenue per Scheduler Hour</b>	Multiply appointments per hour by average margin per scan.
<b>Scheduling Capacity Utilisation</b>	Scheduled slots divided by available scheduler capacity (hours x resources).
<b>Scanner Utilisation Rate</b>	Proportion of imaging capacity (time slots) utilised (shows the downstream effect).
<b>No-Show/Rebooking Rate</b>	Incidence of cancellations or patient no-shows that reduce effective volume.

## Key Metrics to Compare

Model Calculation	Before Optimisation	After Optimisation
Average margin per scan	Annual appointments per scheduler	Appointments per hour increase %
Baseline appointments per scheduler hour	Annual scheduling cost	Scheduling cost per hour
Scheduling cost per hour	Margin before improvement	Margin now
Scheduler works hours/year		Incremental margin

*Payback period: typically under 12 months*

# Implementation Insights Building a High-ROI Scheduling Model

06

## Steps to replicate success

### 1) Audit

Map current scheduling workflow, cost structure, appointment yield, no-show/cancellation rates, slot utilisation.

### 2) Model Selection

Choose a scheduling pricing/model architecture (e.g., cost-per-appointment, per-slot, per-confirmed-scan) that aligns cost to output.

### 3) KPI Alignment

Define scheduling KPIs (appointments per scheduler, cost per appointment, utilisation rate) and build dashboards to monitor them in real time.

### 4) Technology Enablement

Use scheduling orchestration tools, automated reminders/no-show mitigation, slot-tracking analytics, and integrate scheduler dashboards with modality slot utilisation data.

### 5) Training & Governance

Train schedulers in first-call resolution, slot-yield optimisation, patient engagement to reduce cancellations.

### 6) Scale & Monitor

Once pilot results validate improvement, scale across modalities/sites, monitor KPI sustainability and ensure alignment with capacity planning.

## Common Pitfalls to Avoid

Optimising for call volume rather than appointment volume: high call load does not equal high confirmed appointments.

Failing to connect scheduling cost to actual utilisation of imaging assets: without tracking downstream scanner time, you may not capture full value.

Ignoring staff buy-in: schedulers must understand new model and metrics; missing this undermines sustained change.

## Key Takeaways

07

**With the right process, technology and governance, scheduling optimisation becomes a strategic lever, not just a tactical fix.**

- Efficiency and growth are not competing goals — scheduling optimisation delivers both cost down and volume up.
- Outcome-based scheduling models (e.g., per-appointment) realign cost with performance and create stronger operational discipline.
- Measuring both sides of ROI (cost savings plus increased revenue ) is essential for long-term scalability.
- Transparent dashboards enable immediate corrective action, e.g., adjusting scheduler headcount, altering slot availability, or focusing on high-yield referral sources.

Without transparency, measurement becomes retrospective and improvements lag.



**Ready to evaluate your own scheduling performance? Explore how outcome-based scheduling can lower cost and increase capacity.**

**Explore GeBBS's Healthcare Scheduling Solutions**

### **About GeBBS Healthcare Solutions**

GeBBS is a global revenue cycle management (RCM) company based in Englewood Cliffs, NJ. We have offices in Los Angeles and Baltimore and over 2,000 employees globally. We provide Multi-Specialty Medical Coding services to some of the largest hospitals nationwide. We work with clients to seamlessly support their Inpatient and Outpatient medical coding requirements.