

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF FLORIDA
WEST PALM BEACH DIVISION**

CASE NO. 9:25-CV-80526-DMM

GOOD SAMARITAN MEDICAL	)	
CENTER, INC., et al.,	)	
	)	
<i>Plaintiffs,</i>	)	
	)	
v.	)	
	)	
THE LEAPFROG GROUP,	)	
	)	
<i>Defendant.</i>	)	

**DEFENDANT’S MOTION *IN LIMINE* TO PRECLUDE NEW EXPERT OPINIONS TO
BE ELICITED BY PLAINTIFFS AT TRIAL**

Defendant, The Leapfrog Group (“Leapfrog”) by and through its attorneys, Wilson Elser Moskowitz Edelman & Dicker LLP, and for its Motion in Limine to Preclude New Expert Opinions to be Elicited at Trial:

1. On January 5, 2025, per the Order of the Court, Plaintiffs filed their Proposed Findings of Fact and Conclusions of Law. ECF 136.
2. Plaintiffs’ Proposed Findings of Fact and Conclusions of Law was 176 pages long containing 619 paragraphs of purported facts.
3. Buried on page 65 at Paragraphs 219, 220 and 222 of Plaintiffs’ Findings of Facts, Plaintiffs stated for the first time that their expert Dr. Searn Nicholson would be rendering additional opinions that were never disclosed in Dr. Nicholson’s previous report dated August 7, 2025. ECF 136 at ¶¶ 219, 220, 222; *see also* Dr. Sean Nicholson’s Report is attached as Exhibit A.
4. Relying on Paragraphs 219 and 22, Paragraph 222 of the Proposed Findings of Fact

and Conclusions of Law lays out the new opinions and analyses to be offered at trial. Those opinions are as follows:

222. Belying the non-response bias arguments and Leapfrog's methodology more generally, Dr. Nicholson found that hospitals that did not participate in the Survey in 2024 but chose to participate in 2025 after Leapfrog imposed its punitive methodology received, on average, scores far exceeding "Limited Achievement", and even above Leapfrog's "Considerable Achievement" threshold. PX-412.0. Dr. Nicholson's findings are consistent with academic literature finding "no statistically significant differences between hospitals that chose to participate in [Leapfrog's] hospital survey and those that did not, in terms of several patient health outcomes measured by CMS in its Hospital Compare program." PX-937.0 ¶ 68. Neither Leapfrog's Expert Panel nor Leapfrog considered or identified any empirical data suggesting nonparticipating hospitals would perform poorly on the Four Measures before rigging the "imputation model" to assign nonparticipants "Limited Achievement."

5. These opinions and analyses are not contained in Dr. Nicholson's previously disclosed opinions. To wit, the document currently marked as PX-412 was not reviewed, referenced or relied on by Dr. Nicholson in his Rule 26 expert report.

6. The Plaintiffs have made clear by including these new opinions and analyses in the Findings of Fact and Conclusions of Law their intent to introduce these new opinions before this Court at trial.

7. Pursuant to Federal Rule of Civil Procedure 26(a)(2)(B)(i), a party must provide a written report from each expert witness that contains, among other things, "a complete statement of all opinions the witness will express and the basis and reasons for them."

8. A party has the duty to supplement both the expert's report and the information given during an expert's deposition in a timely manner if the party learns that the information is incomplete or incorrect. Fed. R. Civ. P. 26(e).

9. If a party fails to disclose or supplement an expert opinion, the party is not permitted to use that information at trial, unless the failure was substantially justified or harmless. Fed. R.

Civ. P. 37(c)(1).

10. As the Eleventh Circuit has noted, Federal Rule of Civil Procedure 26 is intended to provide opposing parties reasonable opportunity to prepare for effective cross examination and perhaps arrange for expert testimony from other witnesses. *Reese v. Herbert*, 527 F.3d 1253, 1265-66 (11th Cir. 2008) (holding that the district court did not abuse its discretion in excluding the affidavit of an expert witness because it was disclosed after the close of discovery, foreclosing the defendants' opportunity to depose the expert witness) (internal citations and quotations omitted).

11. On May 28, 2025, this Court set the deadline for Plaintiffs' expert disclosures for August 7, 2025. ECF 36. On August 7, 2025, Dr. Nicholson disclosed all of his opinions. Dr. Nicholson was deposed on these opinions and Defendant retained a rebuttal expert based on the opinions espoused by Dr. Nicholson in his August 7, 2025 report.

12. Plaintiffs never supplemented Dr. Nicholson's expert opinions to add additional analysis of opinions related to a comparison of non-participating hospitals in the Survey in 2024 v. 2025 as espoused in Paragraphs 219, 220 and 222 of Plaintiffs' Proposed Findings of Fact or Conclusions of Law.

13. Defendants would be extremely prejudiced if this Court would allow Dr. Nicholson to provide entirely new opinions and analyses at the time of trial that were never disclosed to Defendants.

14. In fact, Plaintiffs have known about Dr. Nicholson's new opinions since (at the latest) September 29, 2025. At the deposition of Dr. Anthony Harris, on September 29, 2025, Leapfrog's rebuttal expert to Dr. Nicholson, Scott Hvidt of Gibson Dunn marked as Exhibit 11 "a demonstrative that was prepared using the Leapfrog hospital safety grade data that Leapfrog produced in this litigation. The following discussion on the record at Dr. Harris's deposition:

Q. Exhibit 11 is a document, a demonstrative that was prepared using the Leapfrog hospital safety grade data that Leapfrog produced in this litigation.

MS. BLAIR: For the record, who prepared this?

MR. HVIDT: For the record, we did.

MS. BLAIR: The lawyers in the case?

MR. HVIDT: For the record, the – the – Dr. Nicholson, and The Cornerstone Group facilitated in the preparation of this document using the data that was produced in this litigation.

MS. BLAIR: Is Dr. Nicholson supplementing his opinions with this document?

MR. HVIDT: He has not supplemented his opinion in an official capacity in this document. We are producing this as it relates to a demonstrative for the ease of discussion over the – with Dr. Harris in preparing for his deposition to respond to –

MS. BLAIR: Well, I object to the use of this only to the extent that Dr. Harris obviously has not seen this and you're going to ask him to opine on numbers that he's not seen and a document that has no ability to show how it was – how these numbers or lines or whatever this is came to be resulted in, but to the extent Dr. Harris can read this, he'll discuss it. But I am objecting to the use of it going forward.

Harris Dep. at p. 228:8-229:16 attached as Exhibit B.

15. Exhibit 11 to Dr. Harris's deposition is a chart purporting to show "Non-Participants in TLG's Survey Would Likely Score Substantively Higher than the Limited Achievement TLG Assumes." *See* Exhibit C. This is the exact opinion Plaintiffs are seeking to slip in at trial without proper disclosure in an attempt to ambush Defendants. *See* ECF 136 at Paragraphs 219, 220 and 222.

16. In a bizarre move, Attorney Hvidt attempts to argue that he offered an errata sheet to clean up his discussion on the record effectively attempting to remove his admission on the record that Dr. Nicholson prepared Exhibit 11 to Dr. Harris's deposition, *See* Attorney Hvidt Errata Sheet attached as Exhibit D. However, this "errata sheet" only attempts to hide the fact that Dr. Nicholson prepared Exhibit 11 but does not attempt to correct the record wherein Attorney Hvidt states that Dr. Nicholson "has not supplemented his opinion in an official capacity."

17. Not only were these new opinions never properly disclosed in accordance with Rule 26(a)(2), Plaintiffs never supplemented Dr. Nicholson's opinions even though the demonstrative underlying Dr. Nicholson's new opinions were shown at Dr. Harris's deposition on September 29,

2025 – two and a half months ago.

18. Rather, like many of their tactics in this case, buried these opinions in a 176-page purported “Findings of Fact” in hopes that they would go unnoticed by Defendant until the time of trial.

19. The rules and the law, require Dr. Nicholson to be barred from offering any new opinions or analyses that were not previously disclosed in his August 7, 2025 expert opinion.

WHEREFORE, Defendant The Leapfrog Group respectfully requests that this Court GRANT its Motion in Limine and bar Plaintiffs from introducing any undisclosed opinions of Dr. Sean Nicholson at trial.

CERTIFICATE OF GOOD FAITH CONFERENCE

Pursuant to Southern District of Florida Local Rule 7.1(a), counsel for Leapfrog certifies that they conferred in good faith with counsel for Plaintiffs via e-mail regarding the issues but have been unable to reach a resolution.

Date: January 13, 2026

Respectfully submitted,

Wilson Elser Moskowitz Edelman & Dicker LLP

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Attorneys for Defendant, The Leapfrog Group

CERTIFICATE OF SERVICE

I hereby certify that on January 13, 2026, a true and correct copy of the foregoing was served on all counsel or parties of record via the ECF filing system.

By: /s/ Jura C. Zibas
JURA C. ZIBAS

EXHIBIT A

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF FLORIDA
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CASE NO. 9:25-CV-80526-DMM

GOOD SAMARITAN MEDICAL CENTER,
INC., et al.,

Plaintiffs,

v.

THE LEAPFROG GROUP,

Defendant.

EXPERT REPORT OF PROFESSOR SEAN NICHOLSON

I, Sean Nicholson, hereby declare under penalty of perjury that the following is true and correct:

I. Introduction

1. I am a Professor in the Department of Economics and the School of Public Policy at Cornell University with an expertise in health economics. Over the past three decades, I have studied and evaluated health care quality measures, taught students how to measure health care quality, and advised hospital administrators on how to assess and improve hospital quality.

2. I have been retained by counsel for the Plaintiffs in this matter to assess i) the foundational principles that govern a proper methodology for evaluating hospital safety and quality, ii) whether the methodology that Defendant The Leapfrog Group (“TLG”) uses to develop its hospital grades conforms to these principles, and iii) the potential impact that TLG’s hospital grades may have on patient decisions regarding which hospitals to use for their medical care.

3. Based on my review of TLG’s hospital rating methodology, I find that TLG’s methodology departs from guiding principles for how hospital quality or safety should be measured, resulting in hospital grades that are misleading and unreliable predictors of actual patient outcomes, posing risks to patients, hospitals, and the public. First, TLG’s methodology generates hospital grades that are incomparable across hospitals due to non-uniform ways of

capturing various measures. Second, TLG's methodology results in unreliable and systematically biased grades that are inappropriately inflated for the hospitals that choose to participate in TLG's hospital survey and inappropriately deflated for the hundreds of hospitals that choose to not participate. In particular, I find that for each of the seven self-reported measures that focus on hospital structures and protocols, the majority of hospitals that participate in TLG's survey assign themselves the highest possible score. By contrast, for hospitals that choose not to participate in the survey (in either the current or any of the previous two rounds of the survey), TLG assigns the lowest possible score for some measures and ignores other measures altogether. As such, my analysis shows that if hospitals that chose not to participate in TLG's survey had instead participated and had responded to the survey in a manner consistent with hospitals that participated, their resulting TLG hospital grades would be substantially improved. In other words, hospitals that participate in TLG's survey are unfairly advantaged relative to those that do not. Finally, and perhaps most notably, TLG's hospital grades have been shown to be unreliable predictors of patient outcomes, with multiple studies showing that hospitals better graded by TLG fail to perform any better than lower graded hospitals with respect to important patient outcomes such as mortality and infection rates. My own analysis of data produced by TLG corroborates this finding—for a variety of patient outcome measures, I find no statistically significant difference in average patient outcomes between hospitals assigned different TLG grades.¹

¹ I understand that TLG has the opportunity to present opinions from one or more experts in this matter and that the parties are continuing to produce documents and evidence in this case. For example, I have been informed that TLG produced more than 250,000 documents in the four days before this report was due, including 93,000 documents on Sunday, August 3 and 156,000 documents on Wednesday, August 6. As I have not yet had the opportunity to meaningfully review these documents, I reserve the right to adjust my opinions based on my review of documents recently produced or that will be produced in this litigation. I also reserve the right to supplement my analysis and conclusions set forth in this report to respond to the opinions of TLG's expert(s) or based upon any additional discovery performed or disclosed by the parties.

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II. Relevant Professional Background

4. I am a Professor in the Department of Economics and the School of Public Policy at Cornell University. I am also a Research Associate at the National Bureau of Economic Research. Prior to joining Cornell, I served as an Assistant Professor in Healthcare Systems at the Wharton School of the University of Pennsylvania. I have a Ph.D. in economics from the University of Wisconsin-Madison and an A.B. in economics from Dartmouth College. This section includes my relevant experience, but not my full professional background. A copy of my curriculum vitae is attached as Appendix A. A list of my testimony in the prior four years is attached as Appendix B.

5. My expertise is health economics. Over the course of my career, I have developed extensive experience in health care quality measurement and improvement through my roles as a management consultant, researcher, teacher, director of a graduate program in health administration, and hospital board member.

6. For four years at a management consulting firm called APM, I helped hospital clients reduce their expenses while maintaining or enhancing the quality of medical care they delivered to patients. I have analyzed hospital expenses, the acuity of the patient needs that hospitals treat, and the scale of teaching and research operations among comparable hospitals to establish cost reduction targets for various hospital functions such as nursing, clinical support services (e.g., radiology), administration, and purchased goods and services. I have also worked with task forces comprised of hospital staff and physicians to identify and assess operational changes that could reduce medical spending while maintaining or enhancing the quality of medical care that patients receive. Working with such task forces, I have quantified the annual cost savings associated with each proposed change and assessed whether and how the proposed change would affect patient care. For example, if a hospital proposed to decrease its ratio of registered nurses to nurse aides, I would analyze the published literature regarding the relationship between nurse staffing and patient outcomes, and I would discuss with task force members managerial actions that would ensure that patients would not be negatively affected at their hospital.

7. In my academic career, I have researched extensively the economics of the health care industry. In this field of study, I have published articles in leading academic journals and presented my research at academic conferences. Many of my peer-reviewed articles examine how to develop novel measures of the quality of medical care delivered by, or influenced by, different health care entities including physicians, hospital-based residency

programs, and health insurance plans. For instance, in 2009, I co-authored an article in the *Journal of the American Medical Association* that developed and implemented a novel method of evaluating the quality of obstetrical residency programs.² My co-authors and I found that a woman treated by an obstetrician who trained at a residency program in the top quintile based on the program's risk-standardized maternal complication rate would have a three percentage point lower probability of experiencing a complication relative to being treated by an obstetrician trained by a program in the bottom quintile of the rankings. That is, re-directing patients to higher-quality providers matters for patient outcomes.

8. In subsequent published articles, I have examined the extent to which the quality of medical care delivered by obstetricians, measured as the risk-adjusted maternal complication rate, changed in the United States between 1992 and 2006,³ and whether and how the quality of care delivered by obstetricians changes over time as they gain experience.⁴ In a 2014 article summarizing this body of research, my co-authors and I concluded that the evaluation of medical education programs should be more tightly connected to patient outcomes than the structure or process measures that have typically been used to evaluate such programs due to ease of data collection.⁵

9. In an article forthcoming in the *American Journal of Managed Care*,⁶ my co-authors and I develop a novel way of measuring the difference in the quality of medical care received by low- versus high-income people in the United States. Specifically, we calculate a summary measure for the quality of medical care received by enrollees of Medicaid Health Maintenance Organizations ("HMOs") nationally based on 39 process and outcome measures, where the former include measures such as the percentage of children who receive at least six well-child visits in their first 15 months of life and the latter include measures such as the percentage of diabetics whose blood pressure is adequately controlled. As we note in the article, our proposed summary measure for quality of medical care uses readily available, publicly reported data by health plans to the National Committee for Quality Assurance ("NCQA"). Of crucial importance for the reliability of our proposed summary measure, the data underlying

² David A. Asch et al., "Evaluating Obstetrical Residency Programs Using Patient Outcomes," *Journal of the American Medical Association* 302(12) (2009): pp. 1277–1283.

³ Sindhu K. Srinivas et al., "Improvements in US Maternal Obstetrical Outcomes From 1992 to 2006," *Medical Care* 48(5) (2010): pp. 487–493.

⁴ Andrew J. Epstein et al., "Association Between Physician Experience After Training and Maternal Obstetrical Outcomes: Cohort Study," *BMJ* 346: f1596 (2013): pp. 2–10; Andrew J. Epstein, Sean Nicholson, David A. Asch, "The Production of and Market for New Physicians' Skill," *American Journal of Health Economics* 2(1) (2016): pp. 41–65.

⁵ David A. Asch et al., "How Do You Deliver a Good Obstetrician? Outcome-Based Evaluation of Medical Education," *Academic Medicine* 89(1) (2014): pp. 24–26.

⁶ Joseph Stankaitis, Samyukta Singh, and Sean Nicholson, "Addressing Health Care Disparities Using a Health Plan Quality Measures Index," *American Journal of Managed Care* 31(9) (2025): pp. 1–19 ("Stankaitis, Singh and Nicholson (2025)").

our measure is independently audited by NCQA to ensure the data reporting is consistent across different health plans and compliant with required data specifications.

10. Similar to my research, my teaching has also been focused on the health care industry. I have received several awards for excellence in teaching such as the Weiss Presidential Fellow and SUNY Excellence in Teaching awards at Cornell University, the Helen Kardon Moss Anvil award at The Wharton School at the University of Pennsylvania, and a teaching excellence award at Worcester Academy, a high school in Massachusetts. Between 2006 and 2009 I taught a course on Health Care Information Technology and Quality Improvement to Master of Health Administration (“MHA”) graduate students at Cornell University. The three objectives of this course, as indicated in the syllabus, were (1) to understand the current state of the quality of medical care in the U.S. and salient strategies for improving quality; (2) to examine specific programs and policies for improving the quality of medical care and to analyze why they did or did not work; and (3) to evaluate how information technology can be used to measure and improve the quality of medical care and health outcomes. The course examined the different ways of defining medical care quality, how quality is measured and the challenges associated with developing accurate measures, how quality measures are used by the government and private health insurers to try to improve quality, and the impact of publicized quality measures on patients’ decisions and their health.

11. I currently teach an undergraduate course on the U.S. health care system that examines the objectives of key industry stakeholders, how they interact with one another, and salient policy issues. Each year I give two lectures on the quality of medical care in the United States, including the current state of quality, how it has changed over time, how quality is measured, why quality in the U.S. is worse than one would expect given the level of spending, policies that might improve quality, and whether those policies are working. For instance, I created an assignment that asks students to assess what they can learn about hospital quality as a prospective surgical patient, using both the New Hampshire HealthCost website and the Hospital Quality Initiative (“HQI”) website constructed by the Centers for Medicare and Medicaid Services (“CMS”). On the latter site, I ask students to identify a structure, process, and outcomes measure for two New Hampshire hospitals, compare the performance of those hospitals on those measures, and assess the utility of those measures in their hypothetical decision about where to seek treatment.

12. I also served as the Director of the Sloan Program in Health Administration at Cornell University for 10 years, between 2014 and 2024. This is a two-year graduate program

that trains students to be effective health care managers and offers a Master of Health Administration (“MHA”) degree. Although graduates work in all sectors of health care, a majority work for hospitals or health systems in operations, strategy, finance roles, or other roles. As Director, I was responsible for establishing the curriculum, setting the program’s strategy, overseeing admissions and placement, and interacting with the 1,600 alumni. To run a successful program, an MHA Director must understand what skills health care organizations are seeking and develop coursework and experiences that cultivate those skills. One skill that is highly valued is the ability of graduates to understand how to measure, monitor, and improve the quality of medical care given its critical importance for patients and the organizations that provide products and services to patients and the clinical professionals who treat patients.

13. I currently serve on the board of directors of Robert Packer Hospital in Sayre, Pennsylvania, and Atlantic Health System, a six-hospital health system based in Morristown, New Jersey. I have served on the Robert Packer board since 2009 and am also a member of their Quality Committee; I have served on the Atlantic Health System board since 2018 and am also a member of their Governance and Medical Staff Leadership and Development Committees. Atlantic Health System has a competency-based board; I was recruited because they were searching specifically for a health economist who has a national reputation.

14. A hospital or health system board such as the ones to which I belong has many responsibilities, including ensuring that the organization adheres to its mission, providing advice to senior management regarding the strategic plan and budget, recruiting senior leadership such as the chief executive officer, determining which physicians will have admitting privileges, reviewing the clinical and financial performance of the organization and offering feedback to senior management as needed, and setting the clinical, operational, and financial performance goals for the upcoming fiscal year that influence incentive compensation for senior managers.

15. Before each Quality Committee or full board meeting, board members like myself receive a packet of information highlighting the organization’s performance in the prior month relative to both the forecast and the prior year. This “dashboard” consists of dozens of medical care quality measures, most of which come from the CMS HQI or are broader applications of those measures.⁷ The Robert Packer Quality Committee dashboard, for example, includes all ten Medicare quality measures from the Hospital Consumer Assessment

⁷ “Hospital Quality Initiative,” *CMS.gov*, December 9, 2024, available at <https://www.cms.gov/medicare/quality/initiatives/hospital-quality-initiative> (“CMS Hospital Quality Initiative”); “Quality Measures,” *CMS.gov*, September 10, 2024, available at <https://www.cms.gov/medicare/quality/measures>.

of Healthcare Providers and Systems (“HCAHPS”), a national, standardized, publicly reported survey of patients’ perspectives of hospital care,⁸ (e.g., percentage of patients who give the organization a five out of five for nurse communication), three Medicare hospital-acquired infection measures (e.g., percentage of patients who contracted a central line-associated bloodstream infection), eight patient throughput measures (e.g., percentage of emergency room patients who left without being seen), nine mortality measures (e.g., 30-day mortality rate for acute myocardial infarction patients), 15 readmissions-related measures (e.g., all-cause readmission for Medicare patients), and 11 patient-safety indicators (e.g., number of patients who contracted sepsis after a surgical procedure). The large number of these measures and the attention that a board devotes to them highlight the important role they play for an organization focused on providing safe and effective medical care to its patients.

III. Scope of Opinions

16. I have been retained by Gibson, Dunn & Crutcher LLP, counsel for Good Samaritan Medical Center, Inc. (“Good Samaritan”), Delray Medical Center, Inc., Palm Beach Gardens Community Hospital, Inc. d/b/a Palm Beach Gardens Medical Center, St. Mary’s Medical Center, Inc. (“St. Mary’s”), and West Boca Medical Center, Inc. (“West Boca”) (collectively, “Plaintiffs”). I understand that Plaintiffs have filed a Complaint against TLG, a non-profit organization that collects data from hospitals and publishes hospital grades that purport to measure hospital safety.⁹ I understand that the Complaint alleges that TLG’s methodology for issuing its Hospital Safety Grades is flawed,¹⁰ and in particular, unfairly penalizes hospitals that choose not to participate in TLG’s voluntary survey.¹¹ Plaintiffs also allege that TLG’s methodology departs from principles of accurate measurement of hospital safety and harms both health care consumers and Plaintiffs through the dissemination of deceptive and unreliable grades.¹² I have been asked by counsel for Plaintiffs to assess i) the foundational principles that govern a proper methodology for evaluating hospital safety and quality, ii) whether the methodology that TLG uses to develop its hospital grades conforms to these principles, and iii) the potential impact that TLG’s hospital grades may have on patient

⁸ See “Patient Survey Star Rating for Hospitals,” *Medicare.gov*, available at <https://www.medicare.gov/care-compare/resources/hospital/patient-survey-rating>. See also “HCAHPS: Patients’ Perspectives of Care Survey,” *CMS.gov*, September 10, 2024, available at <https://www.cms.gov/medicare/quality/initiatives/hospital-quality-initiative/hcahps-patients-perspectives-care-survey> (“CMS HCAHPS: Patients’ Perspectives of Care Survey”).

⁹ Complaint and Demand for Jury Trial, *Good Samaritan Medical Center, Inc., Delray Medical Center, Inc., Palm Beach Gardens Community Hospital, Inc. d/b/a Palm Beach Gardens Medical Center, St. Mary’s Medical Center, Inc., and West Boca Medical Center, Inc. v. The Leapfrog Group*, Case No. 9:25-cv-80526, April 30, 2025 (“Complaint”).

¹⁰ Complaint, pp. 2–3.

¹¹ Complaint, pp. 3, 20–21.

¹² Complaint, pp. 49–51.

decisions regarding which hospitals to use for their medical care. I previously submitted a Declaration in this matter on May 16, 2025, as part of Plaintiffs' motion to preliminarily enjoin TLG from assigning safety grades to Plaintiffs during the pendency of the lawsuit, remove Plaintiffs from the 2025 edition of TLG's hospital grades, and permanently enjoin TLG from including Plaintiffs in its hospital grades. It is my understanding that Plaintiffs withdrew their motion for preliminary injunction when the Court set an expedited trial setting in January 2026.

IV. Summary of Opinions

17. Accurate measurement of medical care quality in general and hospital safety in particular is not only a research area for many health care economists like me, but also an important goal for many health care practitioners. It can also be a valuable informational tool for patients seeking the best medical care if the quality and safety measures reported for a given health care institution are reliable predictors of patient outcomes in that institution. For hospital ratings to be informative and able to guide patients to the appropriate hospitals, those ratings need to be based on a methodology that is applied consistently across all the different hospitals being evaluated and that does not result in ratings for some hospitals being unfairly or inappropriately inflated relative to ratings for other hospitals. Beyond consistency and lack of bias, hospital ratings are only valuable to patients if the ratings are based on measures that have been demonstrated to be predictive of actual health outcomes for hospital patients, i.e., higher rated hospitals should be shown to be associated with better patient outcomes than lower rated hospitals in order for such hospital ratings to be able to direct patients to better hospitals.

18. There is considerable empirical evidence that patients are influenced by hospital ratings in their decisions for where to seek medical care. As such, misleading hospital ratings can distort patient choices and cause harm to patients by inappropriately steering them towards hospitals that may in fact produce worse patient outcomes as compared to other hospitals, or even if no worse, may be located further away from some patients with the increased travel time itself possibly causing patient harm. Misleading hospital ratings can also cause harm to hospitals by tarnishing hospital reputation and adversely impacting critical hospital factors such as access to funds, professional standing, and recruitment of physicians and nurses. The likelihood of such harm is increased if ratings have broad patient reach and are promoted as a reliable and transparent tool for educating patients on hospital choice. This is consistent with how TLG positions its hospital grades, and yet, in reality, TLG's hospital grades are far from reliable or transparent.

19. Based on my review of TLG's hospital rating methodology, I find that TLG's methodology departs from guiding principles for how hospital quality or safety should be measured, resulting in hospital grades that are misleading and unreliable predictors of actual patient outcomes, posing risks to patients, hospitals, and the public. First, TLG's methodology generates hospital grades that are incomparable across hospitals due to non-uniform ways of capturing various measures. Second, TLG's methodology results in unreliable and systematically biased grades that are inappropriately inflated for the hospitals that choose to participate in TLG's hospital survey and inappropriately deflated for the hundreds of hospitals that choose to not participate. In particular, I find that for each of the seven self-reported measures that focus on hospital structures and protocols, the majority of hospitals that participate in TLG's survey assign themselves the highest possible score. By contrast, for hospitals that choose not to participate in the survey (in either the current or any of the previous two rounds of the survey), TLG assigns the lowest possible score for some measures and ignores other measures altogether. As such, my analysis shows that if hospitals that chose not to participate in TLG's survey had instead participated and had responded to the survey in a manner consistent with hospitals that participated, their resulting TLG hospital grades would be substantially improved. In other words, hospitals that participate in TLG's survey are unfairly advantaged relative to those that do not. Finally, and perhaps most notably, TLG's hospital grades have been shown to be unreliable predictors of patient outcomes, with multiple studies showing that hospitals better graded by TLG fail to perform any better than lower graded hospitals with respect to important patient outcomes such as mortality and infection rates. My own analysis of data produced by TLG corroborates this finding—for a variety of patient outcome measures, I find no statistically significant difference in average patient outcomes between hospitals assigned different TLG grades.

V. Materials Relied Upon

20. A list of the materials I considered in preparing this report is attached as Appendix C. Appendix D contains an additional exhibit beyond those included in the sections below. Appendix E contains workpapers that support all the calculations performed throughout this report and underlying all analyses and exhibits. My analysis in this matter is ongoing and I reserve the right to supplement or amend my opinions if I receive additional information that warrants such a supplement or amendment.

VI. Independence of Opinions and Compensation

21. I am being compensated at my standard billing rate of \$1,250 per hour. I have been assisted in this matter by staff of Cornerstone Research, who worked under my direction. I receive compensation from Cornerstone Research based on its collected staff billings for its support of me in this matter. Neither my compensation in this matter, nor my compensation from Cornerstone Research is in any way contingent or based on the content of my opinion or the outcome of this or any other matter.

VII. Foundational Principles for Measuring Hospital Quality

22. The dominant framework for determining how to define and measure the quality of medical care is one developed by Avedis Donabedian, a former University of Michigan public health professor whose 1966 research article laid the foundations for how health care researchers and practitioners have examined this topic in the decades since then.¹³ According to this framework, information about the quality of medical care can be drawn from three categories of measures: structure, process, and outcomes.¹⁴ *Outcome* measures include whether a person who has a heart attack survives or the percentage of patients who are admitted to a hospital with a heart attack and survive. Outcome measures are the “ultimate validators” of the effectiveness and quality of medical care.¹⁵ That is, health outcomes are what ultimately matter to patients and people covered by health insurance. By contrast, people do not derive any utility *directly* from structures and processes—rather, only from the outcomes that those structures and processes produce. This is one reason why the hospital quality ratings published by CMS are based on a number of outcome measures such as incidence of patients experiencing complications during a variety of hospital procedures, incidence of patients contracting infections while in the hospital, incidence of unplanned patient readmissions to the hospital, or incidence of death across different types of patients treated in the hospital.¹⁶ It is also why other hospital quality rating systems, like Healthgrades, similarly rely on data from Medicare medical claims records and data on patient outcomes produced by states (including for patients

¹³ Avedis Donabedian, “Evaluating the Quality of Medical Care,” *The Milbank Quarterly* 83(4) (2005): pp. 691–729, reprinted from *The Milbank Memorial Fund Quarterly*, 44(3) (1966): pp. 166–203 (“Donabedian (1966)”). See also Donald Berwick and Daniel M. Fox, “Evaluating the Quality of Medical Care: Donabedian’s Classic Article 50 Years Later,” *The Milbank Quarterly* 94(2) (2016): pp. 237–241.

¹⁴ Donabedian (1966), pp. 692–695.

¹⁵ Donabedian (1966), p. 694.

¹⁶ “Measures and Current Data Collection Periods,” *CMS.gov*, available at <https://data.cms.gov/provider-data/topics/hospitals/measures-and-current-data-collection-periods> (“CMS Measures and Current Data Collection Periods”).

whose hospital visits were covered by other payors apart from Medicare) to determine patients' actual clinical outcomes when visiting a given hospital.¹⁷

23. In addition, accurate outcome measures should be risk-adjusted to account for differences in initial illness severity and factors outside of the health care system, which impact the likelihood of positive health outcomes. For example, some patients who experience a heart attack are relatively old and also have diabetes and congestive heart failure, and thus are less likely to survive relative to a healthier person even if they receive very high quality, evidence-based medical care. Similarly, some patients may choose to follow discharge instructions while others may not, which could also impact health outcomes regardless of the quality of medical care delivered. Therefore, it is important to measure also the *processes* of medical care—i.e., whether the services delivered to a patient adhere to evidence-based medicine based on the health condition or conditions the patient has—in addition to patients' health outcomes.¹⁸

24. Finally, there are some *structures* (e.g., whether a hospital has implemented an electronic medical record system, or whether a physician is board certified in a specialty) that increase the likelihood that providers will use recommended medical services that produce, on average, superior health outcomes.¹⁹ Thus, although outcomes are what really matter, measuring processes and structures that facilitate and predict good outcomes is also productive and complementary to measuring risk-adjusted outcomes. The ideal medical quality measurement method for hospitals would focus on health outcomes that are important to prospective hospital patients, along with process and structure measures that are predictive of those outcomes.

25. Quality measurements should be collected and reported in an accurate, standardized, and consistent manner across all organizations being evaluated. This instills confidence that the data are valid and ensures integrity and fairness to all organizations being evaluated. That is, a reliable rating system is one that is based on apples-to-apples comparisons across the organizations. This is especially important because ratings are often determined by an organization's position in the national distribution. If one organization is allowed to define or interpret a measure differently than others in a way that overstates their performance, that organization will "move up" the distribution inappropriately and simultaneously "push" many other organizations down the distribution. If patients make decisions based on ratings that use

¹⁷ "Hospital Ratings & Awards Methodologies," *Healthgrades*, available at <https://www.healthgrades.com/quality/ratings-awards/methodology>.

¹⁸ Donabedian (1966), p. 694.

¹⁹ Donabedian (1966), p. 695.

such a measure or if payers tie financial incentives to this measure, patients and money will be reallocated between health care organizations based on the lack of standardization across organizations in how the data were reported.

26. There are several best practices for ensuring that the quality measures, and the ratings that are generated from those measures, are accurate, standardized, and consistent.²⁰ Each quality measure should be clearly defined so that it is objective and does not rely on organizations making judgement calls. For example, an all-cause acute myocardial infarction (“AMI”) readmission—an often-used measure of medical care quality—is defined as a subsequent hospital admission that occurs within 30 days of a patient’s initial AMI admission and where this subsequent admission is not for a previously planned, or staged procedure (e.g., performing an angioplasty on a different blood vessel than was treated during the initial admission).²¹

27. If some subjectivity in a measure is inevitable, ideally a rubric would be provided so that organizations score themselves using the same metrics.²² For example, Medicare penalizes physicians if they do not demonstrate “meaningful use” of an electronic health records (“EHR”) system.²³ Although CMS allows each physician to attest whether or not they are demonstrating meaningful use of EHR, CMS defines the eight objectives that collectively determine meaningful use.²⁴

28. Health care quality ratings or measures are often based on where an organization’s performance is in the national, all-organization, performance distribution in terms of its percentile (e.g., top-quartile, bottom-quartile).²⁵ Therefore, collecting a quality measure from *all* health care organizations is an important way to ensure accuracy, standardization, and consistency. If some organizations do not provide a specific quality

²⁰ For example, as part of the HCAHPS program, CMS conducts “quality oversight activities, including inspection of survey administration procedures, statistical analyses of submitted data, and site visits of HCAHPS survey vendors and self-administering hospitals, to assure that the HCAHPS survey is being administered according to the protocols.” Similarly, the NCQA data submitted by health plans that I have used in my research to measure health plan quality is independently audited by NCQA. See CMS HCAHPS: Patients’ Perspectives of Care Survey; Stankaitis, Singh and Nicholson (2025).

²¹ “2024 Condition-Specific Readmission Measures Updates and Specifications Report,” Yale New Haven Health Services Corporation — Center for Outcomes Research and Evaluation, April 2024, available at https://qualitynet.cms.gov/files/663548ea2b87360fd3523eff?filename=2024_CSR_AUS_Report_v1.0.pdf, pp. 9, 76–77.

²² Donabedian (1966). See also “Using Rubrics,” *Cornell University Center for Teaching Innovation*, available at <https://teaching.cornell.edu/teaching-resources/assessing-student-learning/using-rubrics>.

²³ “Meaningful Use: Electronic Health Record (EHR) incentive programs,” *American Medical Association*, available at <https://www.ama-assn.org/practice-management/medicare-medicare/meaningful-use-electronic-health-record-ehr-incentive>.

²⁴ Reda Chouffani, “Meaningful Use Stage 3,” *TechTarget*, September 2016, available at <https://www.techtarget.com/searchhealthit/definition/meaningful-use-stage-3>.

²⁵ For example, the CMS Five-Star Quality Rating System for Hospitals “evaluates the overall performance of hospitals in the USA and assigns a rating to hospitals ... [based on] how well that hospital performed as compared with other hospitals in the USA.” Nisha Kurian et al., “Predicting Hospital Overall Quality Star Ratings in the USA,” *Healthcare* 9(4) (2021): pp. 1–12, p. 1.

measure, information on the national distribution is incomplete, which creates statistical challenges. Omitting data from the non-reporting organizations can bias ratings for the organizations that do report because their positions in the observed, truncated distribution may differ from their positions with complete reporting. Furthermore, imputing values for the non-reporting organizations can also bias ratings if the statistical method does not accurately predict the non-reported values.

29. The best way to avoid these statistical challenges is to collect quality measures from all health care organizations so the full national distribution is observed. For example, Medicare mandates that all hospitals provide data to the CMS HQR, and thus avoids a need for imputation of missing data. Alternatively, if the financial incentives to report voluntarily are sufficiently strong, organizations are likely to report.²⁶ For example, the Joint Commission on Accreditation of Healthcare Organizations (“Joint Commission”) is a national body that accredits and evaluates more than 23,000 health care organizations including hospitals in the U.S.²⁷ In order to be accredited by the Joint Commission and maintain this accreditation, health care organizations must undergo on-site evaluations by a Joint Commission survey team at least every three years.²⁸ The survey team consists of trained experts who are doctors, nurses, hospital administrators, and other health care professionals. During the on-site evaluation, the expert team selects a random sample of patients at each hospital, examines their medical records to evaluate compliance with medical standards, interviews and conducts observations of hospital staff, and speaks to the patients themselves.²⁹ Although accreditation by the Joint Commission is voluntary, if a hospital meets accreditation standards, that makes the hospital eligible to receive federal reimbursement from CMS.³⁰ Many states also include accreditation by the Joint Commission among their hospital licensing requirements.³¹ As a result, many

²⁶ CMS value-based programs require mandatory reporting and penalizes hospitals that fail to report with reduced payments and penalties. “Audits and Penalties,” *CMS.gov*, September 10, 2024, available at <https://www.cms.gov/OpenPayments/Program-Participants/Reporting-Entities/Audits-and-Penalties> (“CMS Audits and Penalties”); “What Are Value-Based Programs?” *CMS.gov*, September 25, 2024, available at <https://www.cms.gov/medicare/quality/value-based-programs>. See also “CMS Inpatient Value, Incentives, and Quality Reporting Programs Overview,” *Quality Reporting Center*, December 2020, available at https://www.qualityreportingcenter.com/globalassets/2021/06/cms-ivqr-programs-overview_fy-2023_vfinal508.pdf.

²⁷ “History of the Joint Commission,” *The Joint Commission*, available at <https://www.jointcommission.org/who-we-are/facts-about-the-joint-commission/history-of-the-joint-commission/> (“History of the Joint Commission”).

²⁸ History of the Joint Commission.

²⁹ “Joint Commission FAQs,” *The Joint Commission*, available at <https://www.jointcommission.org/who-we-are/facts-about-the-joint-commission/joint-commission-faqs/>.

³⁰ “Federal Deemed Status Fact Sheet,” *The Joint Commission*, available at <https://www.jointcommission.org/resources/news-and-multimedia/fact-sheets/facts-about-federal-deemed-status/> (“Joint Commission Federal Deemed Status”). See also Sarah A. Ibrahim et al., “The Evidence Base for US Joint Commission Hospital Accreditation Standards: Cross Sectional Study,” *BMJ* 377:e063064 (2022) (“Ibrahim et al. (2022)”), p. 1.

³¹ Joint Commission Federal Deemed Status; Ibrahim et al. (2022), p. 1.

hospitals seek accreditation by the Joint Commission,³² and in my experience as a hospital board member, maintaining accreditation by the Joint Commission is a very valuable signal of hospital quality.³³

30. Another way to promote accuracy, consistency, and standardization is to allow the entity collecting data to audit the submitting organizations in order to ensure the data have been submitted appropriately. Organizations may be fined based on the results of an audit. CMS follows such a policy with hospital Medicare reimbursement.³⁴ When Medicare bases incentive payments on quality that is measured in claims data, Medicare performs the initial calculations itself, sends a report to each hospital, and then allows each hospital to submit questions regarding the calculations and to request corrections.

VIII. Hospital Ratings Influence Patient Decisions about Medical Care and Misleading Hospital Grades Can Distort Patient Choices, Causing Substantial Harm

31. As discussed above in Section VII, when evaluating hospital safety, it is important for the measures to be accurate, consistently recorded across different hospitals, and good predictors of actual patient outcomes. Otherwise, one cannot obtain an accurate

³² “Hospital Accreditation Fact Sheet,” *The Joint Commission*, available at

<https://www.jointcommission.org/resources/news-and-multimedia/fact-sheets/facts-about-hospital-accreditation/>.

³³ I understand that Plaintiffs have received accreditations from the Joint Commission, as well as a number of other accreditations and certifications, which required a peer-reviewed accreditation process. Plaintiff Palm Beach Gardens Medical Center’s Responses and Objections to Defendant The Leapfrog Group’s First Set of Interrogatories to Palm Beach Gardens Medical Center, *Good Samaritan Medical Center, Inc., et al. v. The Leapfrog Group*, Case No. 9:25-CV-80526-DMM, July 25, 2025 (“Palm Beach Response to First Set of Interrogatories (July 25, 2025)”), No. 13, pp. 13-14; Declaration of Erik Cazares, May 13, 2025 (“Cazares Declaration”), ¶ 10 (PBHN000002167); Plaintiff Delray Medical Center, Inc.’s Responses and Objections to Defendant The Leapfrog Group’s First Set of Interrogatories to Delray Medical Center, *Good Samaritan Medical Center, Inc., et al. v. The Leapfrog Group*, Case No. 9:25-CV-80526-DMM, July 25, 2025 (“Delray Response to First Set of Interrogatories (July 25, 2025)”), No. 12, p. 14; Declaration of Heather Havericak, May 14, 2025 (“Havericak Declaration”), ¶ 9 (PBHN000002114); Plaintiff Good Samaritan Medical Center, Inc.’s Responses and Objections to Defendant The Leapfrog Group’s First Set of Interrogatories to Good Samaritan Medical Center, Inc., *Good Samaritan Medical Center, Inc., et al. v. The Leapfrog Group*, Case No. 9:25-CV-80526-DMM, July 25, 2025 (“Good Samaritan Response to First Set of Interrogatories (July 25, 2025)”), No. 12, pp. 13-14; Declaration of Sheri Montgomery, May 14, 2025 (“Montgomery Declaration”), ¶ 10 (PBHN000002140); Plaintiff St. Mary’s Medical Center, Inc.’s Responses and Objections to Defendant The Leapfrog Group’s First Set of Interrogatories to St. Mary’s Medical Center, *Good Samaritan Medical Center, Inc., et al. v. The Leapfrog Group*, Case No. 9:25-CV-80526-DMM, July 25, 2025 (“St. Mary’s Response to First Set of Interrogatories (July 25, 2025)”), No. 12, pp. 13-15; Declaration of Cynthia McCauley, May 13, 2025 (“McCauley Declaration”), ¶ 11 (PBHN000002219); Plaintiff West Boca Medical Center, Inc.’s Responses and Objections to Defendant The Leapfrog Group’s First Set of Interrogatories to West Boca Medical Center, *Good Samaritan Medical Center, Inc., et al. v. The Leapfrog Group*, Case No. 9:25-CV-80526-DMM, July 25, 2025 (“West Boca Response to First Set of Interrogatories (July 25, 2025)”), No. 12, pp. 13-14; Declaration of Jerad Hanlon, May 13, 2025 (“Hanlon Declaration”), ¶ 9 (PBHN000002194).

³⁴ CMS Audits and Penalties. CMS can similarly reduce hospital Medicare reimbursement through payment adjustment programs (e.g., Hospital Value-Based Purchasing (“VBP”) Program, Hospital-Acquired Condition Reduction Program (HACRP), and Hospital Readmissions Reduction Program (“HRRP”)) and retains the right to audit data relevant to these programs. See Section 1886(b)(3)(B)(viii)(XI) of the Social Security Act. See also “Hospital Value-Based Purchasing Program,” *CMS.gov*, September 10, 2024, available at <https://www.cms.gov/medicare/quality/initiatives/hospital-quality-initiative/hospital-value-based-purchasing>; “Hospital-Acquired Condition Reduction Program,” *CMS.gov*, September 10, 2024, available at <https://www.cms.gov/medicare/payment/prospective-payment-systems/acute-inpatient-pps/hospital-acquired-condition-reduction-program-hacrp>; “Hospital Readmissions Reduction Program (HRRP),” *CMS.gov*, September 10, 2024, available at <https://www.cms.gov/medicare/payment/prospective-payment-systems/acute-inpatient-pps/hospital-readmissions-reduction-program-hrrp>.

understanding of the patient safety levels offered by a given hospital or evaluate that safety accurately relative to the safety levels offered by other hospitals.

32. The health economics literature has demonstrated that patients pay attention to hospital ratings and these ratings affect where patients seek medical care. For example, a 2004 study examined how patients are impacted by publicly available hospital ratings based on the New York State Cardiac Surgery Reporting System, a system that evaluated and reported risk-adjusted mortality rates in New York hospitals for patients who received coronary artery bypass graft surgery.³⁵ The study showed that hospitals that are publicly identified and flagged by this system as being of low quality (e.g., performing significantly below the state average) experience a significant loss in patient volume during the first 12 months after the hospital ratings come out.³⁶ Similarly, a 2009 study examined the impact of hospital ratings from the *U.S. News and World Report* on patient volume and hospital revenue.³⁷ The study found that an improvement in a hospital's publicly available rating within a given specialty led to a significant increase in the number of patients who sought care from and were treated by physicians within that hospital specialty.³⁸ More recently, a 2016 study demonstrated that hospitals that score higher on quality measures publicly reported by CMS experience higher growth in patient volume (measured relative to patient volume in other hospitals) following the public release of the CMS hospital quality measures.³⁹ Additionally, the study found that this effect is stronger for hospital admissions where patients have a greater say over the hospital choice (i.e., cases where patients are not brought to the hospital emergency room via an ambulance).⁴⁰ The study authors interpret this as additional evidence that publicly reported data on hospital quality can have a substantial effect on patient preferences over hospitals and patient demand for one hospital over another.⁴¹

33. In addition to this general evidence that patients make hospital choices based on publicly available information regarding relative hospital quality, there is evidence that TLG promotes its hospital safety grades as a reliable tool for patients to use in choosing their hospitals. For example, TLG positions itself as the “nation’s leading independent advocate of

³⁵ David M. Cutler et al., “The Role of Information in Medical Markets: An Analysis of Publicly Reported Outcomes in Cardiac Surgery,” *American Economic Review* 94(2) (2004): pp. 342–346 (“Cutler et al. (2004)”).

³⁶ Cutler et al. (2004), p. 344.

³⁷ Devin G. Pope, “Reacting to Rankings: Evidence from ‘America’s Best Hospitals,’” *Journal of Health Economics* 28 (2009): pp. 1154–1165 (“Pope (2009)”).

³⁸ Pope (2009), pp. 1160–1161, 1163.

³⁹ Amitabh Chandra et al., “Health Care Exceptionalism? Performance and Allocation in the US Health Care Sector,” *American Economic Review* 106(8) (2016): pp. 2110–2144 (“Chandra et al. (2016)”), pp. 2110–2111, 2122, 2139–2140.

⁴⁰ Chandra et al. (2016), see abstract.

⁴¹ Chandra et al. (2016), pp. 2139–2140.

health care transparency,”⁴² and repeatedly emphasizes the reliability of its hospital data in external communications to potential data users. In describing its safety grades on its website, TLG states that “the Leapfrog Hospital Survey is the nation’s gold standard in evaluating hospital performance.”⁴³ TLG also indicates that its hospital survey meets “rigorous standards” and that it holds the data “to the highest standards of validity and reliability.”⁴⁴ Notably, TLG states that its hospital safety grades are widely used by a variety of health care organizations such as health plans, employers, and transparency vendors to “educate” patients on hospital performance and “aid” them in “choosing a hospital.”⁴⁵ TLG emphasizes the importance of its grades in informing patients’ hospital choice by claiming that hospitals receiving poor grades of “D” or “F” from TLG “carry nearly twice the risk of mortality as A hospitals” and that “[o]ver 50,000 lives could be saved every year if all hospitals performed at the level of [TLG’s] A graded hospitals.”⁴⁶ The basis for these claims appears to be a 2019 white paper (“TLG white paper”) that was “[p]repared for The Leapfrog Group.”⁴⁷ This white paper, which is neither peer-reviewed nor published in an academic journal, purports to estimate the “number of avoidable deaths in hospitals [that received from TLG] each letter grade (‘A’ vs. ‘B’ vs. ‘C’ vs. ‘D, F’),”⁴⁸ and concludes that “[i]f hospitals with a grade lower than an ‘A’ are able to achieve the safety performance of ‘A’ hospitals...more than 50,000 patient lives could be saved.”⁴⁹ In other words, the authors of the TLG white paper make a *causal* claim about the impact of achieving a safety grade of “A” on patient mortality. However, the analysis in the TLG white paper is inadequate to establish any such causal relationship.⁵⁰ Further, the TLG

⁴² “Frequently Asked Questions About the Leapfrog Hospital Safety Grade,” *The Leapfrog Group*, May 1, 2025, available at <https://www.hospitalsafetygrade.org/frequently-asked-questions> (“FAQ About TLG Hospital Safety Grade”).

⁴³ “Our Ratings,” *The Leapfrog Group*, available at <https://ratings.leapfroggroup.org/our-ratings>.

⁴⁴ “Health Care Ratings and Reports,” *The Leapfrog Group*, available at <https://www.leapfroggroup.org/ratings-reports>.

⁴⁵ “Types of Data Users,” *The Leapfrog Group*, available at <https://www.leapfroggroup.org/data-users/types-data-users>.

⁴⁶ “Lives Lost and Lives Saved,” *The Leapfrog Group*, available at <https://www.hospitalsafetygrade.org/your-hospitals-safety-grade/LivesLost>.

⁴⁷ Matt Austin and Jordan Derk, “Lives Lost, Lives Saved: An Updated Comparative Analysis of Avoidable Deaths at Hospitals Graded by The Leapfrog Group,” *Armstrong Institute for Patient Safety and Quality Johns Hopkins Medicine* (2019) (“TLG white paper”).

⁴⁸ TLG white paper, p. 2.

⁴⁹ TLG white paper, p. 6.

⁵⁰ A proper causal analysis involves carefully isolating the impact, if any, of a variable of interest (e.g., the TLG hospital grade) on an outcome of interest (e.g., patient mortality), controlling for other variables that may impact the outcome of interest. The TLG white paper performs no such analysis to arrive at its causal conclusion. Unobserved confounding factors that affect both the TLG grades and the outcome measures could bias the purported observed relationship between TLG grades and outcome measures. For example, hospitals that have greater resources may receive higher TLG grades and also achieve better patient outcomes, but if this factor of resource availability is not accounted for, one may erroneously attribute better patient outcomes to TLG grades rather than resource availability. See, e.g., Jeffrey M. Wooldridge, *Introductory Econometrics*, 5e, (Mason, OH: South-Western, Cengage Learning, 2013), p. 12 (“In most tests of economic theory, and certainly for evaluating public policy, the economist’s goal is to infer that one variable (such as education) has a causal effect on another variable (such as worker productivity). Simply finding an association between two or more variables might be suggestive, but unless causality can be established, it is rarely compelling.”), p. 88 (“suppose that, rather than including an irrelevant variable, we omit a variable that actually belongs in the true (or population) model. This is often called the problem of excluding a relevant variable or underspecifying the model.”).

white paper uses the same fundamentally flawed data inputs that TLG uses to derive its grades (and that I describe in greater detail in Sections IX and X), thereby rendering both the TLG white paper's analysis and TLG's claims based on this analysis as misleading as TLG's grades themselves.⁵¹ Notably, TLG still reiterates the 2019 white paper's *causal* claim even though that claim is even more misleading today given the methodological change TLG implemented in Fall 2024 that, as described in greater detail in Sections IX and X, further increased the disadvantage to hospitals that do not respond to TLG's survey.

34. Given TLG's promotion of its hospital grades as a reliable and transparent tool for educating patients, as well as TLG's own assessment of the broad patient reach of its grades, TLG's hospital grades can have a significant impact on which hospitals patients choose.⁵² This impact, however, can be harmful rather than beneficial to patient health, given that as discussed below in Section X, TLG's hospital grades provide misleading information about actual hospital quality. Indeed, as noted in Section X below, a hospital graded higher by TLG may be

⁵¹ The TLG white paper's methodology results in systematic bias by using different data sources for participating versus non-participating hospitals. As I explain in Sections X.A and X.B, these different sources sometimes contain data that do not match. For example, the National Healthcare Safety Network, one of the data sources used for participating hospitals, allows hospitals to change their data retroactively while CMS, the alternative data source used for non-participating hospitals, does not. In other words, participating hospitals are permitted to retroactively adjust their data, but non-participating hospitals are not provided this same opportunity. See "Leapfrog Hospital Safety Grade Scoring Methodology," *The Leapfrog Group*, April 21, 2025, available at <https://www.hospitalsafetygrade.org/media/file/Methodology-Spring-2025-1.pdf> ("Spring 2025 TLG Scoring Methodology"), p. 13; NHSN Guidance: Join the Group, Data Rights Template, and Downloading Reports," *The Leapfrog Group*, July 9, 2025, available at https://www.leapfroggroup.org/sites/default/files/Files/2025_NHSN_Instructions_v04.pdf ("NHSN Guidance (2025)"), pp. 19–20. As another example, at the time the white paper was written, TLG used data from a survey administered by the American Hospital Association for non-participating hospitals even though this survey had a lower maximum possible score than TLG's survey. TLG's methodology did not take into account the different point scales for the two surveys, which resulted in non-participating hospitals having their scores appear inappropriately deflated relative to the scores of participating hospitals. As I explain further in Section X.B and as documented in academic literature, participating hospitals are more likely to appear to do better on certain outcomes and more likely to be higher graded than non-participating hospitals. This creates an artificial difference in outcomes between higher graded and lower graded hospitals which the TLG white paper and TLG itself inappropriately attribute to higher grades leading to "lives saved." See TLG white paper, Table A.

⁵² I understand that Plaintiffs have received reports from patients who have made hospital choices based on the hospital grades assigned by TLG. Palm Beach Response to First Set of Interrogatories (July 25, 2025), No. 23, p. 21; Cazares Declaration, ¶ 24 (PBHN000002167); Delray Response to First Set of Interrogatories (July 25, 2025), No. 22, p. 21; Haverick Declaration, ¶¶ 26, 28 (PBHN000002114); Good Samaritan Response to First Set of Interrogatories (July 25, 2025), No. 22, p. 21; PBHN000002076; Montgomery Declaration, ¶¶ 27–28 (PBHN000002140); St. Mary's Response to First Set of Interrogatories (July 25, 2025), No. 22, p. 22; McCauley Declaration, ¶ 37 (PBHN000002219); Hanlon Declaration, ¶¶ 23–25 (PBHN000002194); West Boca Response to First Set of Interrogatories (July 25, 2025), No. 22, p. 21. TLG promotes its Hospital Safety Grades and publicly encourages patients to rely on them when choosing a hospital. See, e.g., "Choosing the Best Hospital," *Leapfrog Hospital Safety Grade*, available at <https://www.hospitalsafetygrade.org/your-hospitals-safety-grade/choosing-the-best-hospital> ("Your choice of hospital could be a life or death decision... Your first step in finding the best care for yourself and your family is finding a safer hospital. Use the Leapfrog Hospital Safety Grade search tool to find the safest hospital in your area, preferably one with an 'A' grade."); "How to Use the Grade," *Leapfrog Hospital Safety Grade*, available at <https://www.hospitalsafetygrade.org/your-hospitals-safety-grade/how-to-use-the-grade> ("[N]o matter the reason for a hospital visit, safety should be your number one concern... Patients should always decide on where to receive care based on a hospital's current Safety Grade. However, past grades can tell you a lot about that hospital's track record in keeping its patients safe from errors, injuries, accidents and infections."); The Leapfrog Group, "Leapfrog's Spring 2025 Safety Grades Are In — New Trend Data Shows One in Eight Hospitals Sustained an 'A' for More Than Two Years," May 1, 2025, available at <https://www.leapfroggroup.org/news-events/leapfrog%E2%80%99s-spring-2025-safety-grades-are-%E2%80%94-new-trend-data-shows-one-eight-hospitals> ("[T]here's still significant variation in safety across U.S. hospitals," [president and CEO of The Leapfrog Group, Leah] Binder added. "That's why it's so important for people to consult Safety Grades when making decisions about seeking care. All hospitals are not the same.""). See also Expert Report of Jonah Berger, Ph.D., August 7, 2025, Sections V and VI.

no better or in fact may be worse in terms of patient infections, readmissions, or mortality rates than a hospital graded lower by TLG.

35. That TLG's inaccurate and misleading hospital grades can harm rather than improve patient health can be also illustrated by the following. For each of the zip codes where three of the five Plaintiffs are located (except Good Samaritan and St. Mary's), Plaintiffs are the only hospitals within five miles of the respective zip code, and each of these Plaintiffs has received a TLG grade of "F."⁵³ For the zip codes within which Good Samaritan and St. Mary's are located, there is only one hospital with a higher grade by TLG—a grade of "C."⁵⁴ To the extent that these poor grades by TLG lead some patients who live in these zip codes to travel further to reach a hospital that received a better grade from TLG, such action may be not only unnecessary—given the potentially misleading nature of these grades—but actually harmful to patient health. Indeed, a 2014 study that analyzed the relationship between distance to a health care facility and health outcomes for scheduled surgeries showed that patients have worse health outcomes as the distance to their chosen health care facilities increases.⁵⁵ More specifically, another study found that longer travel distance to hospitals during medical emergencies is associated with an increase in patient mortality.⁵⁶

36. I understand that some state laws recognize the potential negative impact of travel distance on patient outcomes. For example, Florida state law requires that "all medically necessary transfers shall be made to the geographically closest hospital with the service capability."⁵⁷ Further, guidelines set forth by the American College of Emergency Physicians

⁵³ These grades are the last available grades released by TLG in Spring 2025. "How Safe is Your Hospital: Hospital Matches – Within 5 miles from the Center of 33484," *Leapfrog Hospital Safety Grade*, available at https://www.hospitalsafetygrade.org/search?findBy=zip&zip_code=33484&radius=5&city=&state_prov=&hospital=; "How Safe is Your Hospital: Hospital Matches – Within 5 miles from the Center of 33410," *Leapfrog Hospital Safety Grade*, available at

https://www.hospitalsafetygrade.org/search?findBy=zip&zip_code=33410&radius=5&city=&state_prov=&hospital=; "How Safe is Your Hospital: Hospital Matches – Within 5 miles from the Center of 33428," *Leapfrog Hospital Safety Grade*, available at

https://www.hospitalsafetygrade.org/search?findBy=zip&zip_code=33428&radius=5&city=&state_prov=&hospital=.
⁵⁴ "How Safe is Your Hospital: Hospital Matches – Within 5 miles from the Center of 33401," *Leapfrog Hospital Safety Grade*, available at

https://www.hospitalsafetygrade.org/search?findBy=zip&zip_code=33401&radius=5&city=&state_prov=&hospital=; "How Safe is Your Hospital: Hospital Matches – Within 5 miles from the Center of 33407," *Leapfrog Hospital Safety Grade*, available at

https://www.hospitalsafetygrade.org/search?findBy=zip&zip_code=33407&radius=5&city=&state_prov=&hospital=.

⁵⁵ ShinYi Chou, Mary E. Deily and Sihui Li, "Travel Distance and Health Outcomes for Scheduled Surgery," *Medical Care* 52(3) (2014): pp. 250–257, p. 250. Additionally, a 2016 study conducting a systematic review of literature found that patients have worse health outcomes as distance to health care facilities increased. See Charlotte Kelly et al., "Are Differences in Travel Time or Distance to Healthcare for Adults in Global North Countries Associated with an Impact on Health Outcomes? A Systematic Review," *BMJ Open* (2016), p. 1.

⁵⁶ Thomas C. Buchmueller, Mireille Jacobson and Cheryl Wold, "How Far To The Hospital?: The Effect Of Hospital Closures on Access to Care," *Journal of Health Economics* 25(4) (2006): pp. 740–761, p. 740. See also Jon Nicholl et al., "The Relationship Between Distance to Hospital and Patient Mortality in Emergencies: An Observational Study," *Emergency Medicine Journal* 24 (2007): pp. 665–668, p. 665.

⁵⁷ Fl. Code 395.1041(4)(e).

(“ACEP”) state that for emergency care in a pre-hospital setting, patients should be transported to the nearest appropriate emergency department, in accordance with applicable laws, regulations, and guidelines.⁵⁸ These state laws and physician guidelines, however, only apply to patients who are transported with ambulances; for patients who transport themselves or transport family members to hospitals, the choice of hospital is up to the patients or their families.⁵⁹

37. Given the evidence that patients rely on hospital ratings to inform their hospital choices, accurate hospital ratings can improve patient welfare by steering patients towards better hospitals. Conversely, inaccurate and misleading hospital ratings, like those put forth by TLG, as I will discuss below, can distort patient choices and decrease patient welfare. These ratings can be harmful to patients by inappropriately steering them to hospitals that are in fact worse than others, or even if no worse, to hospitals that take longer to reach with the increased travel itself being potentially harmful to patients.⁶⁰

38. In view of the extent to which hospital ratings can affect patients’ hospital choices, misleading hospital ratings can cause harm to a hospital’s reputation. Academic literature has found that such public reports on hospital quality “can affect the public image or reputation of a provider or medical care organization”⁶¹ and that a “downturn in reputation” can adversely impact critical factors such as a hospital’s ability to raise funds (as charitable donations are an important source of income for not-for-profit hospitals),⁶² “maintain legitimacy and professional standing,”⁶³ and “recruit[sic] and retain[sic] qualified physicians and nurses.”⁶⁴ Indeed, I understand that chief executive officers of Plaintiff hospitals have noted that their hospitals have suffered substantial reputational harm as a result of the poor grades they were assigned by TLG, and that reputational harm has been accompanied by a decline in

⁵⁸ “Emergency Department Planning and Resource Guidelines,” *Annals of Emergency Medicine* 51(5) (2008): pp. 687–695 (“Emergency Department Planning and Resource Guidelines (2008)”), p. 693.

⁵⁹ Emergency Department Planning and Resource Guidelines (2008); “Emergency Ambulance Destination,” *Annals of Emergency Medicine* 34(1) (1999).

⁶⁰ Although TLG acknowledges the risk to patients of refusing emergency medical care, it still encourages patients to use its Hospital Safety Grades as a “research tool for potential emergencies.” See “How to Use the Grade,” *Leapfrog Hospital Safety Grade*, available at <https://www.hospitalsafetygrade.org/how-to-use-the-grade> (“You should never refuse care in an emergency because of a hospital’s Safety Grade, but use this website as a guide for planned events and a research tool for potential emergencies.”).

⁶¹ Judith H. Hibbard, Jean Stockard, and Martin Tusler, “Hospital Performance Reports: Impact on Quality, Market Share, And Reputation,” *Health Affairs* 24(4) (2005): pp. 1150–1160 (“Hibbard et al. (2005)”), p. 1151.

⁶² Hibbard et al. (2005), p. 1159.

⁶³ Hibbard et al. (2005), p. 1151.

⁶⁴ Hibbard et al. (2005), p. 1151.

total outpatient visits, referred outpatient visits, and outpatient surgeries, as well as recruitment challenges and worsened relationships with physicians.⁶⁵

IX. Description of TLG's Methodology for Evaluating Hospital Safety

39. TLG is a non-profit organization that has conducted annual surveys of hospital quality and safety since 2001 and has published "Hospital Safety Grades" since 2012.⁶⁶ More specifically, TLG publishes letter grades ("A" through "F") biannually for nearly 3,000 general acute care hospitals across the country.⁶⁷ The stated purpose of TLG's Hospital Safety Grades is to "educate consumers and purchasers about the safety and quality of healthcare facilities in their community so they can choose the best place for their care."⁶⁸

40. TLG's Hospital Safety Grades aggregate a variety of patient safety measures to produce a single letter grade that purports to represent a hospital's overall performance in keeping patients safe from preventable harm and medical errors.⁶⁹ The measures that comprise each Hospital Safety Grade come from the survey responses hospitals provide to TLG, CMS data, and other supplemental sources.⁷⁰ These data sources produce up to 22 patient safety measures that are then aggregated into each Hospital Safety Grade.⁷¹ TLG's hospital survey is a substantial undertaking: The most recent survey is 353 pages long, and its length has increased over time.⁷²

⁶⁵ Palm Beach Response to First Set of Interrogatories (July 25, 2025), No. 23, p. 21; Cazares Declaration, ¶¶ 24–26 (PBHN000002167); West Boca Response to First Set of Interrogatories (July 25, 2025), No. 22, p. 21; Hanlon Declaration, ¶¶ 23–25 (PBHN000002194); PBHN000002103; Delray Response to First Set of Interrogatories (July 25, 2025), No. 22, p. 21; Havericak Declaration, ¶¶ 24–28 (PBHN000002114); PBHN000002071;; McCauley Declaration, ¶¶ 36–37 (PBHN000002219); Good Samaritan Response to First Set of Interrogatories (July 25, 2025), No. 22, p. 21; PBHN000002076; PBHN000002090; PBHN000002095; St. Mary's Response to First Set of Interrogatories (July 25, 2025), No. 22, p. 22; Montgomery Declaration, ¶¶ 25–28 (PBHN000002140).

⁶⁶ "History," *The Leapfrog Group*, available at <https://www.leapfroggroup.org/about/history>.

⁶⁷ Due to limited availability of public data, TLG does not calculate Hospital Safety Grades for the following types of hospitals: Critical access hospitals ("CAH"), rural emergency hospitals ("REH"), long-term care and rehabilitation facilities, mental health facilities, federal hospitals (e.g., Veterans Affairs, Indian Health Services, etc.), some specialty hospitals, such as surgery centers and cancer hospitals, free-standing pediatric hospitals, hospitals in U.S. territories, and hospitals that are missing scores for more than six process/structural measures, or more than five outcome measures, or missing Patient Safety Indicator ("PSI") 90. Spring 2025 TLG Scoring Methodology, p. 3.

⁶⁸ "How Our Ratings Are Used," *The Leapfrog Group*, available at <https://www.leapfroggroup.org/ratings-reports/how-our-ratings-are-used> ("TLG How Our Ratings Are Used"); "Who We Are," *The Leapfrog Group*, available at <https://www.leapfroggroup.org/about>.

⁶⁹ Spring 2025 TLG Scoring Methodology, p. 3.

⁷⁰ Spring 2025 TLG Scoring Methodology, p. 3.

⁷¹ A hospital may not have a score for all 22 measures due to missing data. Spring 2025 TLG Scoring Methodology, pp. 3–4.

⁷² See "Leapfrog Hospital Survey Hard Copy," *The Leapfrog Group*, May 2, 2025, available at https://www.leapfroggroup.org/sites/default/files/Files/2025%20HospitalSurvey_20250502_v9.1%20%28version%20%29.pdf. A 2024 academic study conducted a field experiment to understand the time commitment involved in completing TLG's survey. The authors noted that at the beginning of 2023, TLG's "survey size was overwhelming (317 pages)," and for a first-time participating hospital, the process involved "12 people dedicat[ing] 117 hours which was in addition to the project

41. For hospitals that choose to participate in TLG's hospital survey ("participating hospitals"), TLG uses the hospitals' self-reported survey responses for the majority of its measures, i.e., for 12 of the 22 measures.⁷³ For measures not recorded on a continuous scale, TLG uses hospitals' survey responses and places them in one of five performance categories:⁷⁴

1. "Achieved the Standard"
2. "Considerable Achievement"
3. "Some Achievement"
4. "Limited Achievement"
5. "Unable to Calculate Score" or "Does Not Apply."

42. However, many hospitals choose not to participate in TLG's hospital survey ("non-participating hospitals"). In 2013, more than half of hospitals scored by TLG did not participate in its survey.⁷⁵ Although the number of non-participating hospitals has declined since then, there are still hundreds of hospitals for which TLG issues Hospital Safety Grades but which do not in fact provide survey data to TLG. In 2025, of the approximately 3,000 hospitals that TLG scored, approximately 2,300 participated in its hospital survey, meaning that roughly 23% chose not to participate.⁷⁶ For all such non-participating hospitals, TLG prominently displays a letter grade on its [hospitalsafetygrade.org](https://www.hospitalsafetygrade.org) website, but on its

manager's time and the majority of those people were department heads." Marjorie A. Erdmann et al., "Transparency in Hospital Safety: A field study of 'what it takes' for hospitals to complete the Leapfrog Group Hospital Survey," *Oklahoma State Medical Proceedings*, 8(1), (2024): pp. 1–18 ("Erdmann et al. (2024)"), pp. 2, 7. Among the public comments that TLG received on its Fall 2024 methodology changes, several hospitals commented that these changes would cause hospitals to reallocate significant resources to avoid TLG's non-participation penalty. See LEAPFROG00045043 – 4 at LEAPFROG00045044 ("The proposed changes to the Imputation Method would result in an inaccurate portrayal of the actual status of the patient safety structures and processes in place for the Leapfrog grade measures CPOE, BCMA, IPS, and Hand Hygiene at hospitals that choose not to expend the resources to submit a 2024 Leapfrog Hospital Survey and had not submitted a 2023 Leapfrog Hospital Survey."); LEAPFROG00044966 – 7 at LEAPFROG00044967 ("Leapfrog should consider moving towards one CPOE test for large hospital systems that utilize the same EMR. It is a large administrative burden to get all tests scheduled and completed in a short amount of time from April 1st to June 30th. The time commitment to complete the test for each hospital is extensive and requires numerous hours of high-salaried FTEs. The frequency requirement should also be re-evaluated as it is unlikely hospitals are changing their EMR significantly each year or every other year... The last-minute notice of changes [in the methodology] that negatively impact hospitals that do not submit requires rapid shifting of priorities for the FTEs heavily involved in survey submission. The completion of the survey requires a great deal of coordination between various departments across the hospital including Informatics, Physicians, Pharmacy, Women's Services, Quality & Safety, and Nursing."); LEAPFROG00178624 – 7.

⁷³ Spring 2025 TLG Scoring Methodology, pp. 4–8.

⁷⁴ There is a numerical score associated with each of the 12 measures that determines in which performance category a hospital is placed. "Achieved the Standard" is associated with a score of 100. "Considerable Achievement" is associated with a score of 50, 70, or 75, depending on the measure. "Some Achievement" is associated with a score of 15, 40, or 50, depending on the measure. "Limited Achievement" is associated with a score of 5, 15, or 25, depending on the measure. "Unable to Calculate Score" or "Does Not Apply" is recorded when a score is "Not Available." See Spring 2025 TLG Scoring Methodology, pp. 9–12.

⁷⁵ Only approximately 42% of hospitals TLG scored in 2013 participated in TLG's hospital survey. See Wenke Hwang et al., "Hospital Patient Safety Grades May Misrepresent Hospital Performance," *Journal of Hospital Medicine* 9(2) (2014): pp. 111–115 ("Hwang et al. (2014)"), p. 112.

⁷⁶ "About the Leapfrog Group," *The Leapfrog Group*, November 15, 2024, available at <https://www.hospitalsafetygrade.org/about-the-score/about-the-leapfrog-group> ("About the Leapfrog Group"); Spring 2025 TLG Scoring Methodology, p. 3.

leapfroggroup.org website TLG only states that these hospitals declined to participate in TLG's survey without displaying any letter grade.⁷⁷

43. In order to assign grades to non-participating hospitals, TLG uses other sources for the 12 measures that are based on survey responses for participating hospitals:⁷⁸ for five of the measures, TLG uses CMS data;⁷⁹ for three of the measures, TLG does not include the measure in calculating the hospital's Safety Grade;⁸⁰ and for four of the measures, TLG uses an "imputation model."⁸¹ The four measures for which TLG imputes values are:

1. Computerized Physician Order Entry ("CPOE")
2. Bar Code Medication Administration ("BCMA")
3. ICU Physician Staffing ("IPS")
4. Hand Hygiene Score ("HHS").

44. For these four measures, if a hospital does not participate in TLG's survey, TLG follows a two-step imputation model. Starting in the Fall of 2024, the imputation model consisted of the following. First, if the hospital had a prior score assigned by TLG in the last two rounds of hospital grade assignments, the hospital is assigned the same score as the most recent available score on that measure.⁸² If a hospital does not have historical data from the last two rounds of hospital grades, TLG assigns "a point value that is equivalent to receiving 'Limited Achievement' for this measure," which is the lowest possible score a hospital can

⁷⁷ See, e.g., "West Boca Medical Center," *The Leapfrog Group*, available at <https://www.hospitalsafetygrade.org/h/west-boca-medical-center>; "West Boca Medical Center," *The Leapfrog Group*, available at <https://ratings.leapfroggroup.org/facility/details/10-0268/west-boca-medical-center-boca-raton-fl>; "Good Samaritan Medical Center," *The Leapfrog Group*, available at <https://www.hospitalsafetygrade.org/h/good-samaritan-medical-center>; "Good Samaritan Medical Center," *The Leapfrog Group*, available at <https://ratings.leapfroggroup.org/facility/details/10-0287/good-samaritan-medical-center-west-palm-beach-fl>; "St. Mary's Medical Center," *The Leapfrog Group*, available at <https://www.hospitalsafetygrade.org/h/st-marys-medical-center-west-palm-beach-fl>; "St. Mary's Medical Center," *The Leapfrog Group*, available at <https://ratings.leapfroggroup.org/facility/details/10-0288/st-mary-s-medical-center-west-palm-beach-fl>; "Delray Medical Center," *The Leapfrog Group*, available at <https://www.hospitalsafetygrade.org/h/delray-medical-center>; "Delray Medical Center," *The Leapfrog Group*, available at <https://ratings.leapfroggroup.org/facility/details/10-0258/delray-medical-center-delray-beach-fl>; "Palm Beach Gardens Medical Center," *The Leapfrog Group*, available at <https://www.hospitalsafetygrade.org/h/palm-beach-gardens-medical-center>; "Palm Beach Gardens Medical Center," *The Leapfrog Group*, available at <https://ratings.leapfroggroup.org/facility/details/10-0176/palm-beach-gardens-medical-center-palm-beach-gardens-fl>.

⁷⁸ For participating hospitals that decline to provide information on specific measures, TLG applies the same methodology for those measures that it does for non-participating hospitals. See Spring 2025 TLG Scoring Methodology, pp. 4–6, 9–15, 23.

⁷⁹ These five measures are Central Line-Associated Bloodstream Infections ("CLABSI"), Catheter-Associated Urinary Tract infections ("CAUTI"), Surgical Site Infections from Colon Surgery ("SSI: Colon"), Facility-Wide Inpatient MRSA Blood Laboratory-Identified Events ("MRSA"), and Facility-Wide Inpatient C.diff. Laboratory-identified Events ("C. Diff."). See Spring 2025 TLG Scoring Methodology, p. 6.

⁸⁰ These three measures are Total Nursing Care Hours per Patient Day, Safe Practice 1: Culture of Leadership Structures and Systems ("SP 1"), and Safe Practice 2: Culture Measurement, Feedback & Intervention ("SP 2"). Given that these three measures are excluded for non-participating hospitals, the standard weights of these measures are redistributed to the other measures for which there are data. Spring 2025 TLG Scoring Methodology, pp. 4–5, 20, 23.

⁸¹ Spring 2025 TLG Scoring Methodology, pp. 4–5.

⁸² Step 1 imputation is temporarily on pause for the BCMA measure due to changes TLG made to the measure in 2024. See "Final Updates to the Leapfrog Hospital Safety Grade Methodology for Fall 2024," *The Leapfrog Group*, available at https://www.hospitalsafetygrade.org/media/file/Fall2024HospitalSafetyGrade_FinalMethodologyChanges.pdf ("Final Updates to Fall 2024 TLG Scoring Methodology"), pp. 2–3. See also Spring 2025 TLG Scoring Methodology, p. 15.

receive.⁸³ For the CPOE measure, the “Limited Achievement” value is 15, for the BCMA measure it is 25, for IPS it is 5, and for HHS it is 15.⁸⁴ Thus, hospitals that choose not to participate in TLG’s survey receive only 60 out of 400 possible points for these four measures combined. By contrast, hospitals that choose to participate in TLG’s survey have an average of 302 points for these four measures combined.⁸⁵ This difference of 242 points has a considerable impact on a hospital’s safety grade. Based on the Spring 2025 safety grade criteria, the 242-point difference can correspond to an average grade that is one letter worse for non-participating hospitals, relative to the average letter grade received by participating hospitals, even if both types of hospitals received identical scores across all other measures.⁸⁶

45. Note that prior to the Fall of 2024, TLG used a substantially different imputation model for non-participating hospitals that did not have a recent TLG-assigned score on these four measures.⁸⁷ Specifically, rather than assign such non-participating hospitals the lowest possible score on these four measures (as it does now), TLG previously assigned these hospitals the average score reported by a set of similar participating hospitals, based on comparison of various hospital characteristics such as urban/rural status and number of beds.⁸⁸

46. TLG states that its Hospital Safety Grades are based on a public and peer-reviewed methodology under the guidance of a “National Expert Panel,” comprised of academics and researchers.⁸⁹ However, the study that TLG refers to as “peer reviewed and published in the Journal of Patient Safety” was published more than a decade before TLG changed its imputation model in Fall 2024.⁹⁰ Thus, this study did not take into consideration TLG’s current imputation methodology. Furthermore, both TLG’s earlier and current

⁸³ Spring 2025 TLG Scoring Methodology, pp. 9–12, 16; See Final Updates to Fall 2024 TLG Scoring Methodology, pp. 2–3.

⁸⁴ Spring 2025 TLG Scoring Methodology, p. 16.

⁸⁵ Spring 2025 TLG Scoring Methodology, p. 22.

⁸⁶ Note that TLG may set different Hospital Safety Grade cut-points for different years. In my calculation, I use the Spring 2025 grade cut-points and TLG’s methodology to standardize scores in order to determine the Hospital Safety Grades for participating and non-participating hospitals. See Workpaper 1; “Key Dates and Information,” *The Leapfrog Group*, available at <https://www.hospitalsafetygrade.org/for-hospitals/key-dates-and-information>; “Explanation of Hospital Safety Grades,” *The Leapfrog Group*, April 2025, available at https://www.hospitalsafetygrade.org/media/file/ExplanationofSafetyGrades_Spring2025.pdf, p. 2.

⁸⁷ If hospitals had an assigned score in any of the previous four rounds (i.e. two years) of grades, instead of previous two rounds of grades as is done currently, TLG would impute the most recent score. See “Leapfrog Hospital Safety Grade Scoring Methodology,” *The Leapfrog Group*, April 22, 2024, available at <https://www.hospitalsafetygrade.org/media/file/Safety-Grade-Methodology-Spring-2024.pdf> (“Spring 2024 TLG Scoring Methodology”), p. 14.

⁸⁸ This average score second imputation step applies to CPOE, BCMA, and HHS. For IPS, if hospitals reported at least one ICU bed in CMS, TLG assigned non-participating hospitals the lowest possible score. See Final Updates to Fall 2024 TLG Scoring Methodology, p. 2; Spring 2024 TLG Scoring Methodology, pp. 14, 17.

⁸⁹ FAQ About TLG Hospital Safety Grade; “About the Grade,” *The Leapfrog Group*, available at <https://www.hospitalsafetygrade.org/your-hospitals-safety-grade/about-the-grade> (“TLG About the Grade”).

⁹⁰ TLG About the Grade; J. Matthew Austin et al., “Safety in Numbers: The Development of Leapfrog’s Composite Patient Safety Score for U.S. Hospitals,” *Journal of Patient Safety* 9 (2013): pp. 1–9, available at https://www.hospitalsafetygrade.org/media/file/JournalofPatientSafety_HospitalSafetyScore.pdf.

imputation models conflict with the guidance of TLG's Expert Panel. Because "not all hospitals have enough data publicly available to be eligible for a grade," the Expert Panel's guidance states that there are "requirements for the minimum amount of data [TLG] need[s] to issue an accurate grade."⁹¹ More specifically, the guidance states that "[a] hospital must have enough safety data available for our experts to issue them a letter grade. Hospitals missing more than **six** process measures" are "not graded."⁹² Yet, TLG assigns non-participating hospitals grades even though, without TLG's imputation model, these non-participating hospitals would lack data for **seven** of the twelve process measures.

47. The remaining 10 of the 22 patient safety measures underlying TLG's Hospital Safety Grade come from CMS data.⁹³ CMS collects and maintains data through the HQI, a CMS program that collects and distributes data on hospital performance and other metrics, and these data are fundamentally different from TLG's hospital survey data.⁹⁴ First, CMS data have mandatory reporting standards. Hospitals that fail to publicly report data to CMS may receive reduced Medicare Fee-for-Service payments, a program that "pays physicians, hospitals, and other health care facilities based on statutorily established payment systems."⁹⁵ Second, CMS hospital data are audited, and hospitals that "fail to report information in a timely, accurate, or complete manner" may be penalized.⁹⁶ In some cases, CMS may conduct additional "quality oversight activities, including inspection of survey administration procedures, statistical analyses of submitted data, and site visits of ... survey vendors and self-administering hospitals."⁹⁷ By contrast, TLG's hospital survey data are self-reported with hundreds of hospitals declining to participate, and the available TLG data documentation do not mention any auditing of the survey responses. According to a 2019 evaluation of TLG's methodology conducted by a group of physician scientists, TLG audits very few hospitals: "[TLG] leadership stated that they had only done a formal audit for approximately five hospitals of about 2,600 in the past year, and only 72 hospitals underwent an electronic audit."⁹⁸

⁹¹ FAQ About TLG Hospital Safety Grade.

⁹² TLG About the Grade.

⁹³ Spring 2025 TLG Scoring Methodology, pp. 5–7.

⁹⁴ CMS Hospital Quality Initiative.

⁹⁵ "Finding Medicare Fee-For-Service (FFS) Payment System Rules: Schedules and Resources," *Congress.gov*, January 7, 2025, available at <https://www.congress.gov/crs-product/R46797>; "Hospital Quality Initiative Public Reporting," *CMS.gov*, September 10, 2024, available at <https://www.cms.gov/medicare/quality/initiatives/hospital-quality-initiative/hospital-compare>. For example, the HCAHPS survey, which includes five of the ten CMS patient safety measures in TLG's survey, requires such reporting, and "hospitals that fail to publicly report the quality measures, which include the HCAHPS survey, may receive a reduced annual payment." See CMS HCAHPS: Patients' Perspectives of Care Survey.

⁹⁶ CMS Audits and Penalties.

⁹⁷ CMS HCAHPS: Patients' Perspectives of Care Survey.

⁹⁸ Karl Y. Bilimoria et al., "Rating the Raters: An Evaluation of Publicly Reported Hospital Quality Rating Systems," *NEJM Catalyst* 5(4) (2019), p. 14.

48. After TLG compiles the 22 measures for each hospital, it produces a standardized score, which allows it to assign a Hospital Safety Grade for each hospital. To standardize data from measures with different performance scales, TLG converts each measure's value to a z-score. A z-score is calculated using a hospital's actual measure score, the national mean for that measure, and the national standard deviation for that measure.⁹⁹ Specifically, for process measures, z-scores are calculated as $(\text{Hospital Score} - \text{Mean}) / \text{Standard Deviation}$, and for outcome measures, z-scores are calculated as $(\text{Mean} - \text{Hospital Score}) / \text{Standard Deviation}$.¹⁰⁰

49. TLG then calculates an overall numerical score for each hospital. First, TLG multiplies the z-score for each measure by the weight assigned to that measure. Then, TLG sums the weighted scores for each measure and adds 3, to normalize scores to a positive distribution. Lastly, the overall standardized numerical score (typically between 1.0 and 4.0) is converted into a Hospital Safety Grade.¹⁰¹

50. Additionally, TLG assigns standard weights to all 22 measures. TLG's methodology to assign standard weights includes four criteria: "Evidence," "Impact," "Opportunity," and "Number of Component Measures."¹⁰² These four criteria are then combined to produce a standard weight for each measure that represents the measure's relative importance within the Hospital Safety Grade.¹⁰³ After incorporating these weights, the 10 measures taken from CMS data account for *less than* 44% of the overall Hospital Safety Grade while the remaining 12 measures from TLG's hospital survey account for *more than* 56% of the overall Hospital Safety Grade.¹⁰⁴ The four measures for which TLG uses its imputation model for non-participating hospitals alone account for 24% of the overall Hospital Safety Grade.¹⁰⁵

⁹⁹ Spring 2025 TLG Scoring Methodology, p. 21.

¹⁰⁰ There are 12 process/structural measures: CPOE, BCMA, IPS, SP 1, SP 2, Total Nursing Care Hours per Patient Day, HHS, H-COMP-1, H-COMP-2, H-COMP-3, H-COMP-4, H-COMP-5, and H-COMP-6. There are 10 outcome measures: Foreign Object Retained, Air Embolism, Falls and Trauma, CLABSI, CAUTI, SSI: Colon, MRSA, C. Diff., PSI 4, and PSI 90. Spring 2025 TLG Scoring Methodology, pp. 20–21.

¹⁰¹ Spring 2025 TLG Scoring Methodology, p. 24.

¹⁰² The Evidence Score is determined by the strength and quality of the evidence that supports the measure. The Impact Score is a function of the number of patients affected and the severity of harm. The Opportunity Score is based on the Coefficient of Variation of that measure, calculated as $1 + (\text{Standard Deviation} / \text{Mean})$. The Number of Component Measures simply reflects how many component measures comprise the measure. For PSI 90, the number of component measures is 10 and for all other measures, the number of component measures is one. Spring 2025 TLG Scoring Methodology, pp. 18–19.

¹⁰³ Standard Weight = Evidence + (Impact x Opportunity x Number of Component Measures); Spring 2025 TLG Scoring Methodology, pp. 18–20.

¹⁰⁴ Workpaper 2.

¹⁰⁵ Workpaper 2. If any of the measures are missing for a given hospital, the standard weight of that measure is redistributed to the other measures for which there are data. Spring 2025 TLG Scoring Methodology, pp. 20, 23–24.

X. TLG's Rating Methodology Is Fundamentally Flawed

51. In Section VII, I described important guiding principles for measuring hospital quality. TLG's hospital rating system departs from these established principles, resulting in ratings that are unreliable and incapable of predicting actual patient outcomes.

A. TLG's Methodology for Generating Hospital Grades Fails to Provide an Appropriate Basis for Comparison of Hospitals

52. As discussed in Section VII, for a rating system to allow for meaningful comparisons across the entities being ranked, the methodology used to determine ratings should be consistently applied across all entities.¹⁰⁶ In other words, if ratings were to be generated using different methodologies across different entities, such ratings would not actually allow different entities to be meaningfully compared to one another. TLG's methodology for generating hospital grades suffers from this fundamental flaw.

53. As discussed in Section IX, participation in TLG's survey is voluntary, and while the rate of non-participation has decreased over time from more than 50% in 2013 to approximately 23% in 2025, it still remains the case that many hospitals for which TLG provides safety grades choose to submit no information at all as part of TLG's hospital survey.¹⁰⁷ The statistics literature has found that the quality of inferences that can be drawn based on available data is directly related to the proportion of missing data, and that any "statistical analysis is likely to be biased when more than 10% of the data are missing."¹⁰⁸ As such, the fact that TLG continues to generate hospital grades for hundreds of hospitals that provide no survey responses and represent approximately 23% of all hospitals that TLG grades calls into question the scientific reliability of TLG's hospital grades.

54. The unreliability of TLG's hospital grades is further underscored by the fact that the major contributor of these hospital grades (56.6% of the overall grade) is the collective 12 measures that participating hospitals self-report in TLG's survey and non-participating hospitals do not. As discussed in Section IX, TLG applies a different rating methodology for participating hospitals versus non-participating hospitals with respect to these 12 measures. For participating hospitals, these 12 measures are based on non-audited, self-reported values

¹⁰⁶ For example, as part of the HCAHPS program, CMS also conducts "quality oversight activities, including inspection of survey administration procedures, statistical analyses of submitted data, and site visits of HCAHPS survey vendors and self-administering hospitals, to assure that the HCAHPS survey is being administered according to the protocols." Similarly, in the article that will be published later this year, my co-authors and I independently audit data underlying our research to ensure data reporting is consistent across different health plans and compliant with required data specifications. *See* CMS HCAHPS: Patients' Perspectives of Care Survey; Stankaitis, Singh and Nicholson (2025).

¹⁰⁷ Hwang et al. (2014), p. 112; About the Leapfrog Group; Spring 2025 TLG Scoring Methodology, p. 3.

¹⁰⁸ Yiran Dong and Chao-Ying Joanne Peng, "Principled missing data methods for researchers," *SpringerPlus* 2(222) (2013): pp. 1–17, p. 2.

obtained from TLG's hospital survey, whereas for non-participating hospitals five of these measures are based on audited, mandatory reported values from public sources, four are "imputed" as the lowest possible score,¹⁰⁹ and three are not considered when calculating the safety grade.¹¹⁰ Academic literature has raised similar concerns about the reliability of TLG's methodology due to different treatment of participating and non-participating hospitals, even before TLG's methodology update in Fall 2024 regarding the imputation model used for non-participating hospitals.¹¹¹

55. Further, for some of the measures that are obtained from public sources for both participating and non-participating hospitals, these measures are obtained from *different* public sources for the different type of hospital. For example, the standardized infection ratio ("SIR") measure, which accounts for 21.6% of a hospital's grade, is obtained from CMS for non-participating hospitals, while it is obtained using the National Healthcare Safety Network ("NHSN") data for participating hospitals.¹¹² Although data should be similar from both sources, it is well acknowledged that the data often do not match in practice,¹¹³ and TLG has made public recognition of this fact.¹¹⁴ Namely, TLG acknowledges that SIR data obtained from CMS and NHSN often do not match, because CMS data are "frozen based on the quarterly

¹⁰⁹ In the event that a hospital had a score assigned by TLG in the previous two rounds of grades, excluding imputed scores, the most recent score is used instead of this imputation.

¹¹⁰ Spring 2025 TLG Scoring Methodology, pp. 15–17. In its Motion to Dismiss, TLG claims that "government entities implement a similar methodological approach to missing data" as TLG's imputation model, and identifies (1) the U.S. Census Bureau, (2) the U.S. Bureau of Labor Statistics ("BLS"), and (3) the U.S. Bureau of Justice Statistics ("BJS") as the relevant agencies. Defendant The Leapfrog Group's Motion to Dismiss Pursuant to Federal Rule of Civil Procedure 12(b)(2) and 12(b)(6) and Incorporated Memorandum of Law in Support of the Same, *Good Samaritan Medical Center, et al. v. The Leapfrog Group*, Case No. 9:25-cv-80526-DMM, June 27, 2025. However, TLG's current imputation model, which assigns the lowest possible score to missing survey responses, does not conform to the methods implemented by those government entities. None of these entities assign the *lowest* values in cases of missing data as TLG does. Rather, they apply common imputation methods. For example, one of the methods the BLS uses in its Import and Export Price Index survey is "cell mean imputation" that utilizes information on average prices for items that have such available data to impute prices for other, similar items for which pricing information is not available. See "Data Editing and Imputation," *U.S. Census Bureau*, available at <https://www.census.gov/programs-surveys/sipp/methodology/data-editing-and-imputation.html>; Marcus Berzofsky et al., "Estimation Procedures for Crimes in the United States Based on NIBRS Data," *Bureau of Justice Statistics*, August 2022, available at <https://bjs.ojp.gov/content/pub/pdf/epcusbnibrsd.pdf>, pp.4–5; "Discussion" under "Guidelines for Data Transparency, Analysis, and Processing" in "Data Quality Guidelines Overview," *U.S. Bureau of Justice Statistics*, available at <https://bjs.ojp.gov/bjs-data-quality-guidelines/overview#22-0>; "Imputation," *U.S. Bureau of Labor Statistics*, available at <https://www.bls.gov/opub/hom/topic/imputation.htm>; , "International Price Program: Calculation," *U.S. Bureau of Labor Statistics*, available at <https://www.bls.gov/opub/hom/ipp/calculation.htm#estimating-missing-values>.

¹¹¹ See, e.g., Karl Y. Bilimoria et al., "Rating the Raters: An Evaluation of Publicly Reported Hospital Quality Rating Systems," *NEJM Catalyst* 5(4) (2019), p. 14; Shawna N. Smith et al., "Dissecting Leapfrog: How Well Do Leapfrog Safe Practices Scores Correlate with Hospital Compare Ratings and Penalties, and How Much Do They Matter?" *Medical Care* 55(6) (2017): pp. 606–614 ("Smith et al. (2017)"), p. 613; Hwang et al. (2014), p. 111; Erdmann et al. (2024), pp. 9–10.

¹¹² Spring 2025 TLG Scoring Methodology, pp. 13–15. See also "Leapfrog Hospital Survey Hard Copy," *The Leapfrog Group*, May 2, 2025, available at https://www.leapfroggroup.org/sites/default/files/Files/2025%20HospitalSurvey_20250502_v9.1%20%28version%20%29.pdf, p. 267.

¹¹³ "CMS Quality Reporting Programs Frequently Asked Questions," *CDC*, March 15, 2023, available at https://www.cdc.gov/nhsn/faqs/cms/faq_cms_hai.html.

¹¹⁴ NHSN Guidance (2025), pp. 19–20.

reporting deadline, whereas NHSN is constantly changing if a hospital changes its data.”¹¹⁵ In other words, participating hospitals are permitted to retroactively adjust their SIR data, but non-participating hospitals are not provided this same opportunity. Research has shown that participating hospitals’ SIR data are substantially more favorable than the SIR data publicly available through CMS, leading researchers to recommend that TLG use CMS data for all hospitals.¹¹⁶ TLG does not explain why it chooses this inconsistent methodology between participating and non-participating hospitals, instead of using CMS data for all hospitals. These inconsistent methodological practices of TLG in generating ratings preclude the ability to perform an apples-to-apples comparison of participating and non-participating hospitals.

56. Yet another inconsistency in how TLG treats participating and non-participating hospitals is that the former are graded based on (self-reported) performance during a more recent period than the latter. For example, as noted by TLG in its scoring methodology for Spring 2025, TLG used data on participating hospitals’ self-reported performance during July 2023–June 2024 on a variety of measures including measures of the incidence of five different types of infections that patients can develop while treated in the hospital.¹¹⁷ By comparison, for non-participating hospitals TLG used data from CMS on these measures even though those data were reported to CMS for a different time period—January–December 2023.¹¹⁸ In other words, in addition to relying on data from different *sources* for participating and non-participating hospitals, TLG also relies on data from different *time periods* for these two types of hospitals. Such a methodological inconsistency further undermines the ability of TLG’s resulting hospital grades to capture quality differences across hospitals.

57. Finally, even among hospitals that do participate in TLG’s survey, the hospital grades are not comparable. This is because the 12 measures that are derived from hospital responses to TLG’s survey are self-reported and hospitals are provided no uniform rubric to generate these responses. For example, the “National Quality Forum (‘NQF’) Safe Practices” measure is only defined by TLG as “measur[ing] a hospital’s progress towards implementing endorsed processes and protocols to reduce and prevent adverse events.”¹¹⁹ It is not clear what exactly constitutes an adverse event, nor how one might measure progress towards reducing incidence of such events. As another example, TLG defines the BCMA measure as measuring,

¹¹⁵ NHSN Guidance (2025), p. 20.

¹¹⁶ Smith et al. (2017), p. 613.

¹¹⁷ Spring 2025 TLG Scoring Methodology, p. 6.

¹¹⁸ Spring 2025 TLG Scoring Methodology, p. 6.

¹¹⁹ Spring 2025 TLG Scoring Methodology, p. 11.

in part, a hospital's progress towards "implementation of BCMA throughout the hospital" and "structures to monitor and reduce workarounds."¹²⁰ Again, TLG provides no rubric or specifics regarding how progress should be measured and provides no indication of what types of structures would need to be in place. For example, one first-time participating hospital reported "[s]urvey item interpretation problems" because the "[l]anguage of some of the sections and clarifications were confusing" such that "[i]t remains unclear how some of the measures are interpreted by other [hospital] systems."¹²¹ That hospital identified TLG's "Emphasis on Self-Reported Data" as a "Perceived Threat[] to Survey Validity" for these reasons.¹²² To the extent hospitals are reporting these scores using different informal rubrics, the resulting overall grades are not comparable across hospitals.

B. TLG's Rating System Results in Inappropriately Inflated Grades for Hospitals that Choose to Participate in Its Survey and Inappropriately Deflated Grades for Hospitals that Choose Not to Participate

58. As described in Section IX, for hospitals that choose to participate in TLG's survey, 12 of the 22 measures used to determine the hospital safety grade are based on self-reporting by these hospitals. TLG lacks an appropriate auditing mechanism to ensure that the self-reported data are accurate. For example, and as noted above, one such measure in the hospital survey is the HHS.¹²³ However, it is simply not possible to verify that each doctor or nurse at participating hospitals was washing their hands whenever they claim they did. Similarly, as noted above, another measure in the survey is "National Quality Forum Safe Practices," which purports to capture a hospital's progress toward implementing certain safety protocols.¹²⁴ But TLG has no way of independently verifying that a hospital truly practices any such protocols.

59. Participating hospitals are strongly incentivized to give themselves higher scores on these self-reported measures to improve their grades,¹²⁵ and in fact, Smith et al. (2017), examining TLG's hospital grades, concluded that participating hospitals do indeed inflate their responses to the survey, as evidenced by the fact that, on all but one measure, 50% or more of participating hospitals self-report a perfect score, as shown in Exhibit 1.¹²⁶ Based on my analysis of the data produced by TLG in this matter, I find that in the last available round

¹²⁰ Spring 2025 TLG Scoring Methodology, p. 9.

¹²¹ Erdmann et al. (2024), Table 2, p. 7.

¹²² Erdmann et al. (2024), Table 4, p. 11.

¹²³ Spring 2025 TLG Scoring Methodology, p. 12.

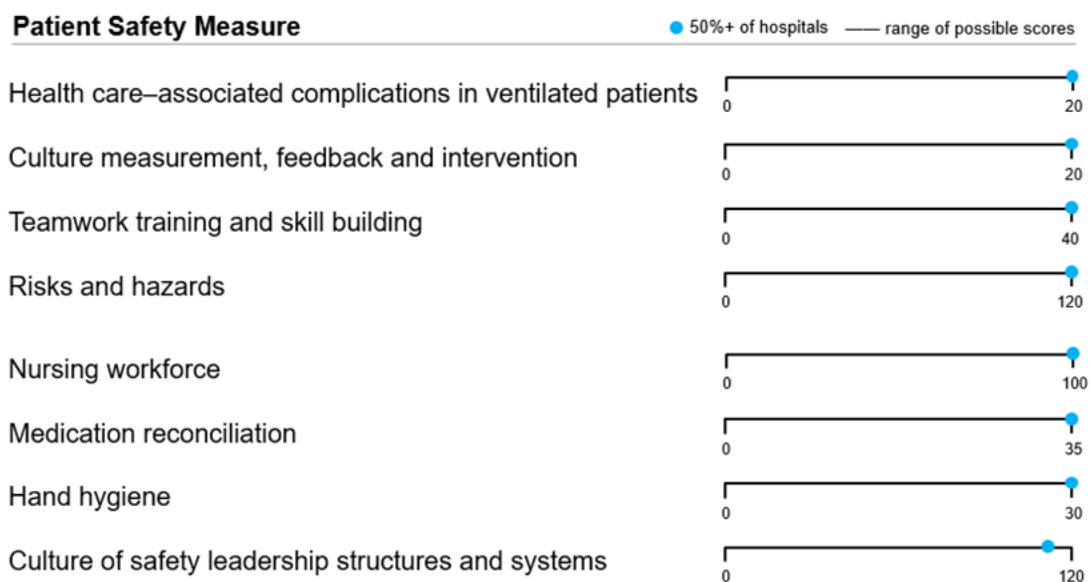
¹²⁴ Spring 2025 TLG Scoring Methodology, p. 11.

¹²⁵ Smith et al. (2017), p. 611.

¹²⁶ Smith et al. (2017), p. 609.

of TLG's survey, participating hospitals still tend to give themselves the highest possible score on the self-reported process measures. Exhibit 2 shows the percentage of participating hospitals that assigned themselves the highest possible score across the seven self-reported process measures in the Spring 2025 TLG survey. For each measure, the majority of participating hospitals assigned themselves the highest possible score. In fact, for six out of the seven measures, the share of participating hospitals that self-reported the highest possible score is greater than 70%. Another way to illustrate the large discrepancy between the scores that participating hospitals give themselves and the scores that TLG imputes for non-participating hospitals is to compare the average scores for the four imputed measures among non-participating hospitals with the average scores that were self-reported by participating hospitals where, for illustration, both averages are compared relative to the minimum and maximum possible score for each measure. As Exhibit 3 demonstrates, non-participating hospitals are given the lowest possible scores by TLG while participating hospitals consistently give themselves either the maximum scores or very close to them.

Exhibit 1
On Nearly All TLG Measures, 50% or More of Participating Hospitals Self-Report Perfect Scores

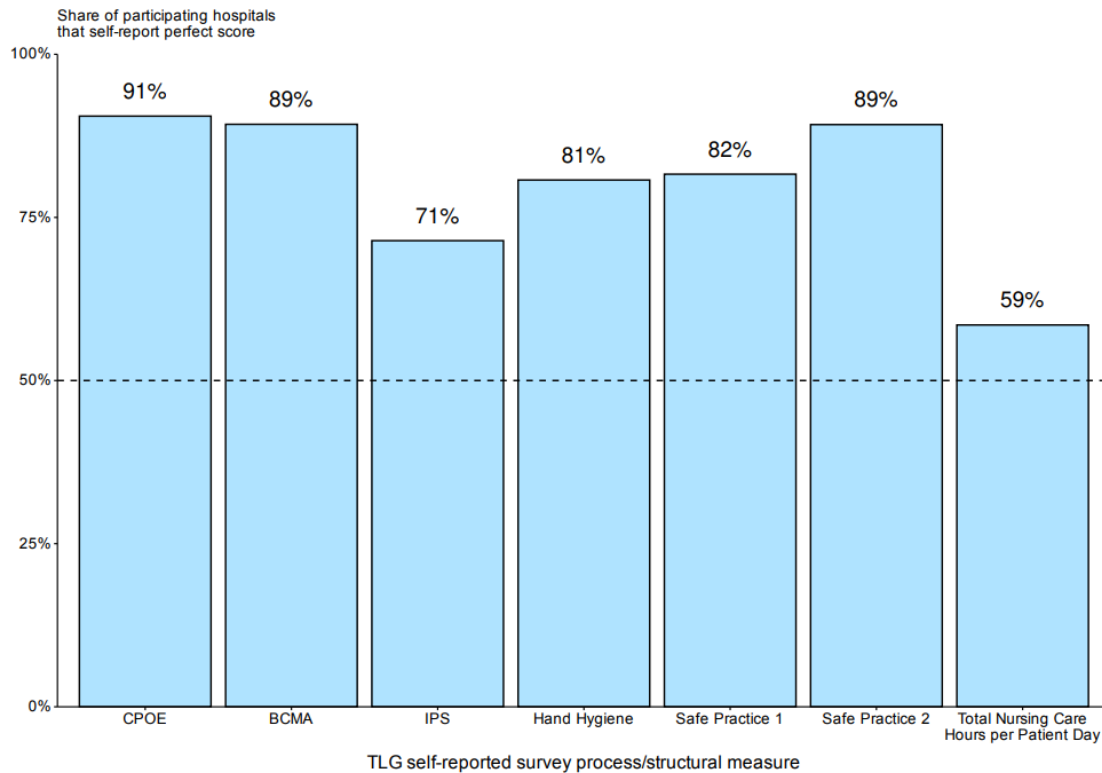


Source: Smith et al. (2017)

Note: This exhibit includes all eight patient safety measures included in the 2013 TLG Hospital Survey for which hospitals participating in the survey were asked to self-report. These measures combined contributed 22.6% a hospital's safety grade.

Exhibit 2

Most Participating Hospitals Continue to Self-Report Perfect Scores as of Spring 2025

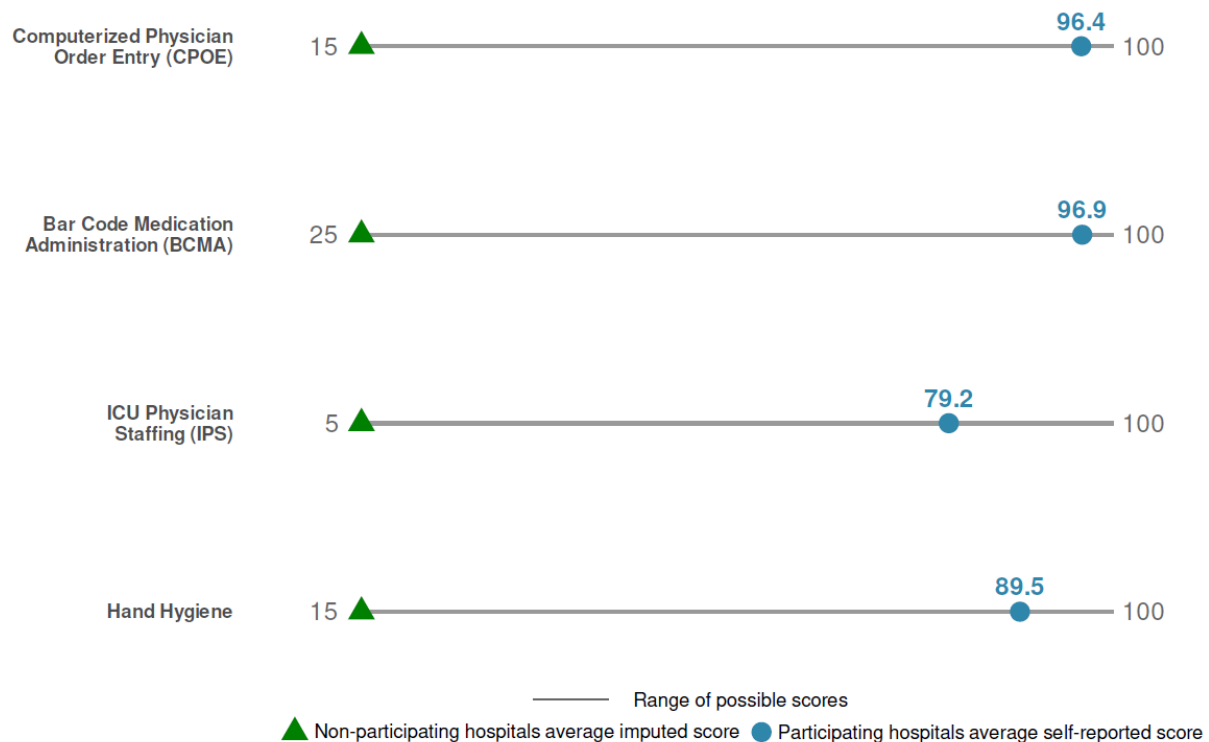


Source: TLG Hospital Safety Grade data

Note: This figure demonstrates that on each of the seven of the total 12 measures that hospitals participating in TLG's survey self-reported in Spring 2025, the majority of participating hospitals reported a perfect score. These seven measures are the ones that for non-participating hospitals, TLG either imputes the lowest possible value (Computerized Physician Order Entry (CPOE), Bar Code Medication Administration (BCMA), ICU Physician Staffing (IPS), Hand Hygiene) or omits in the calculation of the final grade (Safe Practice 1: Culture of Safety Leadership Structures and Systems, Safe Practice 2: Culture Measurement, Feedback, and Intervention, and Total Nursing Care Hours per Patient Day). This analysis does not include non-participating hospitals that were subject to TLG's "Step 1" imputation, which uses historical data to calculate a previously participating hospital's score on a given measure.

Exhibit 3

TLG Assigns Non-Participating Hospitals the Lowest Possible Scores on Four Process Measures While Participating Hospitals Self-Report Very High Scores



Source: TLG Hospital Safety Grade data

Note: This figure shows the four measures for which TLG imputes the score for non-participating hospitals. Specifically, it shows the average score that TLG imputed for non-participating hospitals and the average score that participating hospitals self-reported in Spring 2025. The non-participating hospitals included in the figure do not include non-participating hospitals for which TLG applies “Step 1” imputation, where TLG uses historical data to calculate a previously participating hospital’s score on a given measure. TLG’s “Step 1” imputation affects 38 out of 592 non-participating hospitals.

60. Further, Smith et al. (2017) found a “consistently weak” correlation between these *self-reported* scores and a set of *actual* patient outcomes such as incidence of two different types of infection rates and incidence of hospital penalties due to high rates of unplanned patient readmissions and hospital-acquired conditions (“HAC”),¹²⁷ meaning that hospitals that self-report inflated scores provide no observable benefit to patients with respect to these outcomes as compared to non-participating hospitals.¹²⁸ As such, given that TLG

¹²⁷ In 2012, CMS began their HRRP and HACRP, which aim to reduce unplanned readmissions and HAC, respectively. Hospitals whose HAC or readmissions exceed expected values could be penalized up to 1% of total hospital Medicare reimbursement under HACRP or up to 3% of total hospital Medicare reimbursement under HRRP. See “Hospital Readmissions Reduction Program (HRRP),” *CMS.gov*, September 10, 2024, available at <https://www.cms.gov/medicare/payment/prospective-payment-systems/acute-inpatient-pps/hospital-readmissions-reduction-program-hrrp>. See also “Hospital-Acquired Condition Reduction Program,” *CMS.gov*, September 10, 2024, available at <https://www.cms.gov/medicare/payment/prospective-payment-systems/acute-inpatient-pps/hospital-acquired-condition-reduction-program-hacrp>.

¹²⁸ Smith et al. (2017), p. 611.

cannot verify the accuracy of survey responses and the fact that participating hospitals inflate their scores, this results in overall TLG grades that are inflated for participating hospitals.

61. Likewise, exactly the opposite is true for non-participating hospitals. Contrary to TLG's claim that "Hospital Safety Grades are not... automatically lowered if a hospital declines to participate,"¹²⁹ TLG's methodology does in fact "automatically" penalize hospitals that do not respond to the survey by inappropriately deflating those hospitals' grades. This occurs primarily through TLG's imputation model, adopted in the Fall of 2024 as discussed in Section IX, which assigns non-participating hospitals the *lowest possible score*, associated with "Limited Achievement," for four measures without having any factual basis to do so.¹³⁰ As also discussed above, this imputation model has an outsized impact on a hospital's safety grade and can lead to a non-participating hospital receiving a safety grade that is one letter grade lower than an otherwise identical participating hospital.

62. As an example, the Spring 2025 TLG grades for Florida hospitals demonstrate the marked difference in grades between participating and non-participating hospitals. *Every* hospital in Florida that received a grade of "A" or "B" from TLG had completed TLG's survey, and *every* hospital in Florida that did not complete the survey received a grade of "C" or lower.¹³¹ Moreover, the majority of these Florida hospitals that received a grade of "A" or "B" from TLG received CMS Overall Hospital Quality Star Ratings below the national average of 3.1 stars (out of five).¹³² This provides another example of how participation in TLG's survey may result in inflated TLG grades.

63. Even prior to adopting this imputation model in the Fall of 2024, TLG's methodology penalized non-participating hospitals. For example, for two of the measures for

¹²⁹ "Follow-Up Statement from Leapfrog President and CEO Leah Binder on Tenet Healthcare Hospitals' Lawsuit to Suppress Poor Safety Grade Performance," *The Leapfrog Group*, May 2, 2025, available at <https://www.leapfroggroup.org/news-events/follow-statement-leapfrog-president-and-ceo-leah-binder-tenet-healthcare-hospitals%E2%80%99>.

¹³⁰ "Leapfrog Hospital Safety Grade Scoring Methodology," *The Leapfrog Group*, November 4, 2024, available at <https://www.hospitalsafetygrade.org/media/file/Safety-Grade-Scoring-Methodology-Fall-2024-1.pdf>, p. 15; Spring 2025 TLG Scoring Methodology, pp. 15–16.

¹³¹ "How Safe is Your Hospital?" *The Leapfrog Group*, available at <https://www.hospitalsafetygrade.org/>. See Workpaper 3. This pattern is present nationwide. My analysis of the data produced by TLG in this matter shows that in Spring 2025, among all U.S. hospitals that received TLG grades of "A" or "B", virtually all of them—98%—were hospitals that elected to complete TLG's survey. By contrast, among U.S. hospitals that received TLG grades of "C" or lower, only 54% completed the survey. Similar percentages were observed for Fall 2024—98% and 53%, respectively. In both years, the difference in percentages across differently graded hospitals is statistically significant, i.e., hospitals that receive higher grades by TLG are significantly more likely to be participating hospitals than hospitals that receive lower grades. Workpaper 6.

¹³² The CMS Overall Hospital Quality Star Rating is part of the HQL. See "Hospital Quality Initiative Public Reporting," *CMS.gov*, available at <https://www.cms.gov/medicare/quality/initiatives/hospital-quality-initiative/hospital-compare>. This rating "summarizes a variety of measures across 5 areas of quality into a single star rating for each hospital." These 5 areas include "Mortality," "Safety," "Readmission," "Patient Experience," and "Timely & Effective Care." See "Overall Hospital Quality Star Rating," *Data.CMS.gov*, available at <https://data.cms.gov/provider-data/topics/hospitals/overall-hospital-quality-star-rating>. The national average CMS Overall Hospital Quality Star Rating is calculated across all U.S. hospitals that received a CMS star rating. Among Florida hospitals that received a TLG grade of A or B, more than 50 percent of hospitals received a CMS Overall Hospital Quality Star Rating of three or lower. See Workpaper 4.

which TLG currently imputes the lowest possible value for non-participating hospitals, TLG previously used data from another source (a survey administered by the American Hospital Association (“AHA”)) for non-participating hospitals.¹³³ This AHA survey, however, had a lower maximum possible score, so that even if a hospital scored the maximum points on the AHA survey, that score would still be lower than the maximum possible score on TLG’s survey.¹³⁴ TLG’s methodology did not take into account the different point scales for the two surveys, which resulted in non-participating hospitals having their scores appear inappropriately deflated relative to the scores of participating hospitals.¹³⁵

64. This inappropriate deflation of scores and resulting safety grades for non-participating hospitals was documented in Hwang et al. (2014), a study that examined TLG’s safety grades for 35 hospitals, all considered “top hospitals” according to a rating by the *U.S. News & World Report*,¹³⁶ but 17 of which did not participate in TLG’s hospital survey and 18 of which did. Unlike TLG, the study’s authors “rescored” the 17 non-participating hospitals by assigning them the average values of the self-reported measures of the 18 participating hospitals.¹³⁷ This rescoring allowed the non-participating hospitals to benefit from any score inflation inherent in the self-reported measures of the participating hospitals. It also allowed the non-participating hospitals to be shielded from any score deflation caused by TLG using a different scale with a lower possible maximum score for non-participating hospitals than for participating ones.

65. Hwang et al. (2014) found that virtually all (15 of the 17) non-participating hospitals would have obtained higher safety grades simply by virtue of participating in TLG’s survey, and eight of these hospitals would have received such a substantial improvement in

¹³³ See, e.g., “Hospital Safety Score Scoring Methodology,” *The Leapfrog Group*, May 2013, available at https://www.hospitalsafetygrade.org/media/file/HospitalSafetyScore_ScoringMethodology_May2013.pdf (“Spring 2013 TLG Scoring Methodology”), pp. 13–15.

¹³⁴ For the CPOE measure, participating hospitals were scored from 5 to 100, whereas non-participating hospitals were scored from 5 to a maximum of 65. Similarly, for the IPS measure, participating hospitals were scored from 5 to 100, whereas non-participating hospitals were scored from 5 to a maximum of 85. Spring 2013 TLG Scoring Methodology, pp. 13–15.

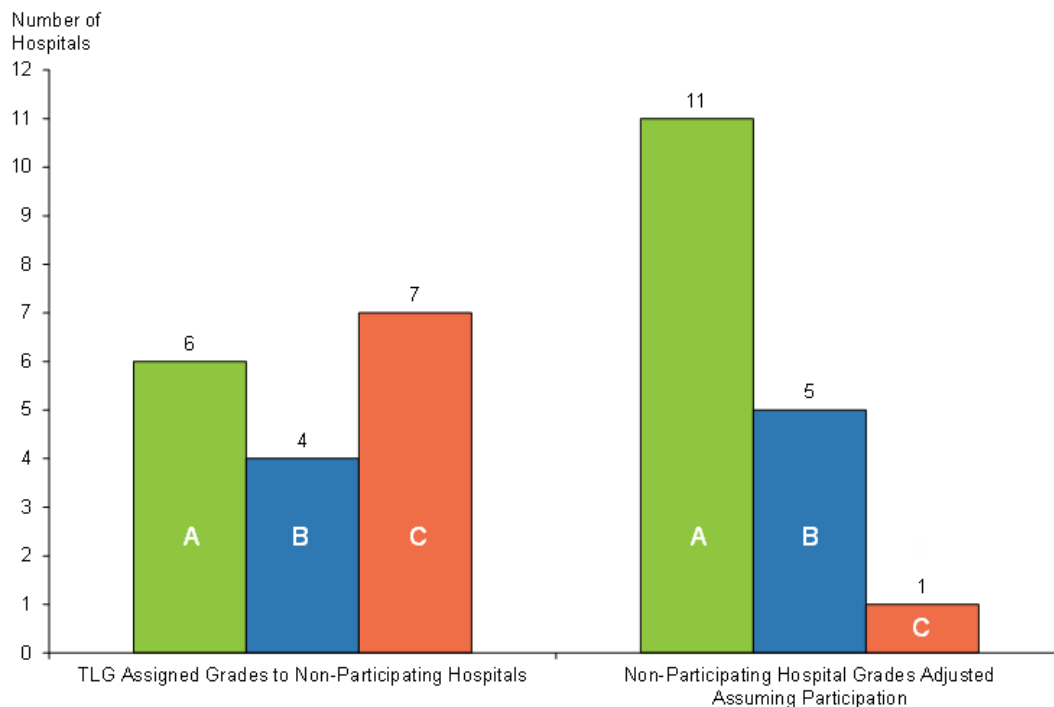
¹³⁵ In 2018, TLG lowered the maximum CPOE score for non-participating hospitals to 45 (from 65) using data from the AHA survey. In Spring 2021, TLG began applying its average score methodology to CPOE as described in Section IX above. In Fall 2023, TLG imputed the lowest IPS score of 5 for non-participating hospitals that reported having any ICU hospital beds to CMS. See Spring 2013 TLG Scoring Methodology, pp. 13–15; “Leapfrog Hospital Safety Score Scoring Methodology,” *The Leapfrog Group*, October 17, 2018, available at https://www.hospitalsafetygrade.org/media/file/HospitalSafetyGrade_ScoringMethodology_Fall2018_Final2.pdf, p. 14; “Leapfrog Hospital Safety Score Scoring Methodology,” *The Leapfrog Group*, November 17, 2020, available at https://www.hospitalsafetygrade.org/media/file/HospitalSafetyGrade_ScoringMethodology_Fall2020.pdf, pp. 15–17, 29; “Leapfrog Hospital Safety Score Scoring Methodology,” *The Leapfrog Group*, October 23, 2023, available at <https://www.hospitalsafetygrade.org/media/file/Safety-Grade-Methodology-Fall2023.pdf>, pp. 15–18.

¹³⁶ The *U.S. News and World Report* Best Hospitals ratings evaluate nearly 6,000 hospitals each year, in collaboration with industry experts on a number of criteria for health outcomes, process, and structure measures. See “U.S. News Best Hospitals 2024-2025,” *U.S. News & World Report*, available at <https://health.usnews.com/best-hospitals>.

¹³⁷ Hwang et al. (2014), p. 112.

their safety grades that would have amounted to a one- or two- letter grade improvement, further demonstrating the bias in TLG’s method of addressing missing data from non-participating hospitals.¹³⁸ Exhibit 4 displays the impact of the rescoring on the grades of non-participating hospitals.

Exhibit 4
Example of How TLG Penalized Non-Participating Hospitals Even Prior to Fall 2024



Source: Hwang et al. (2014).

Note: Displayed are the results of an analysis of TLG’s hospital grades for 17 “top” hospitals (based on rating of the *US News and World Report*) all of which did not participate in TLG’s hospital survey. Hwang et al. (2014) compared the actual hospital grades assigned to these hospitals by TLG (histogram on the left) with what grades these hospitals would have obtained had they participated in the survey (histogram on the right).

66. Using data produced by TLG in this matter, I conducted a similar rescoring exercise for all non-participating hospitals in the Spring of 2025, presented in Exhibit 5. Assuming that these hospitals chose to participate in TLG’s survey and assigned themselves the average score that participating hospitals did for each of the seven self-reported measures in the survey, their performance would have improved substantially. Specifically, while 96% of these non-participating hospitals received a grade of “C” or lower, I find that had they participated and behaved like participating hospitals typically do, 71% of them would have

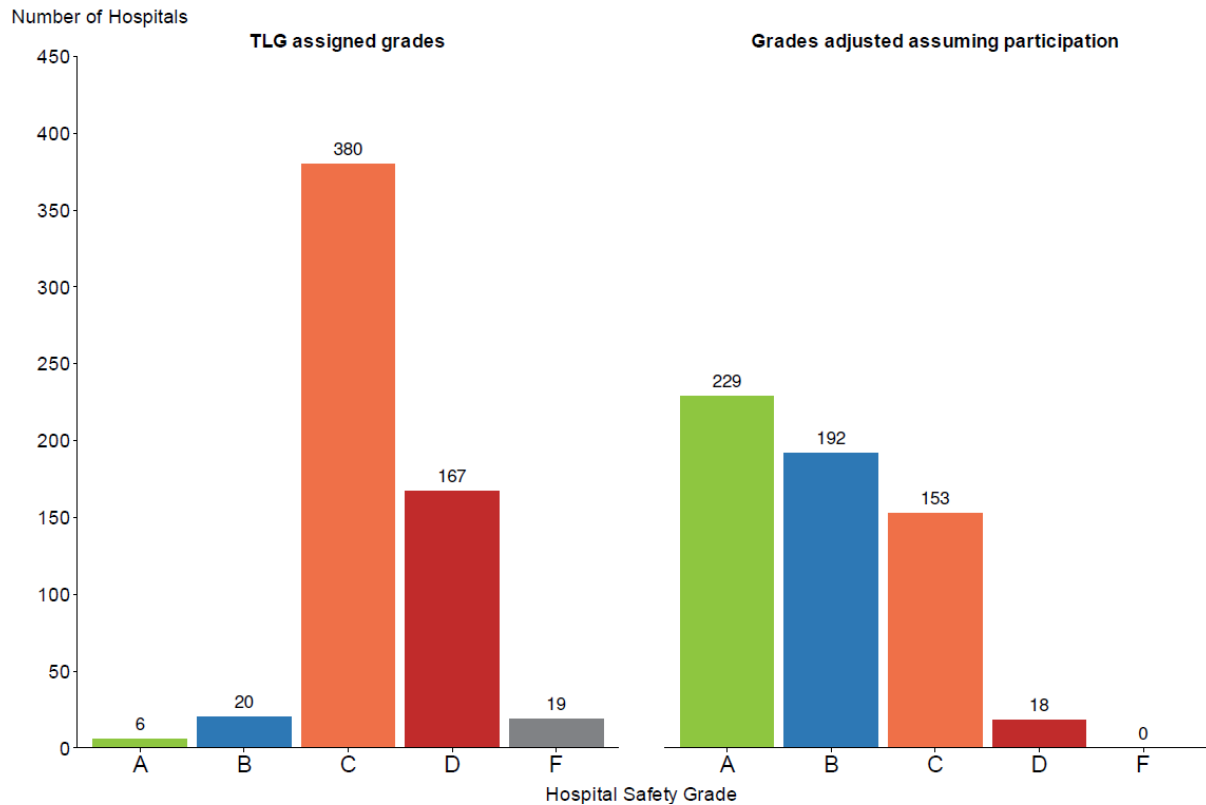
¹³⁸ Hwang et al. (2014), p. 113.

received grades of “A” or “B” instead.¹³⁹ I also conducted a similar rescoring exercise using the data provided by TLG for Plaintiffs for Spring 2025. Specifically, I compared the grades that TLG assigned to Plaintiffs with the grades that Plaintiffs would have been assigned had they participated in TLG’s survey and self-reported data in a similar way to participating hospitals, i.e., if they had given themselves the average score that participating hospitals gave themselves on each measure.¹⁴⁰ Exhibit 6 illustrates the impact of this rescoring exercise for Plaintiffs. As this Exhibit shows, had Plaintiffs chosen to participate in TLG’s survey and answered that survey in the way that participating hospitals do, Plaintiffs would have been assigned by TLG grades of “C”, i.e., one to two letter grades higher than the grades Plaintiffs were actually assigned when they chose not to participate in TLG’s survey.

¹³⁹ When conducting this exercise using hospital participation data for Fall 2024, I find very similar results. 94% of these non-participating hospitals received a grade of “C” or lower, but had they participated, 76% of them would have received grades of “A” or “B” instead. See Appendix D, Workpaper 7

¹⁴⁰ As noted in Smith et al. (2017), the median score, i.e., the score self-reported by 50% or more of the participating hospitals was the highest possible score for all but one measure. For that last measure, the median score was still very close to the maximum—111.43 points out of 120 maximum points. See Smith et al. (2017), Table 1, p. 609. When constructing the counterfactual scenario where Plaintiffs participate in TLG’s survey, I conservatively assume that Plaintiffs would have given themselves the *average* score that participating hospitals gave themselves on seven out of 12 measures—those seven measures for which TLG either imputes the lowest possible score for a non-participating hospital or which TLG disregards for non-participating hospitals (but includes for participating ones). For all other measures, I leave TLG’s scoring methodology unchanged. Using the average scores is conservative because, as noted above, even if not all, many participating hospitals self-report the highest possible scores for these seven measures. Using the average scores of participating hospitals is consistent with Hwang et al. (2014) who conduct a similar rescoring analysis of TLG grades and also assign the average scores of participating hospitals to non-participating hospitals. See Hwang et al. (2014), p. 112. Using average (otherwise known as “mean”) values of responding units (i.e., participating hospitals in this case) to impute missing data for non-responding units (i.e., non-participating hospitals) is a common method of handling missing data, supported by the academic statistics literature. See, e.g., Roderick J. A. Little and Donald B. Rubin, “Single Imputation Methods,” in *Statistical Analysis with Missing Data 3e* (Hoboken, NJ: Wiley, 2020), pp. 67–84, p. 68 (“Explicit modeling methods include the following: (a) *Mean imputation*: Where means from the responding units in the sample are substituted.”). See Workpaper 5.

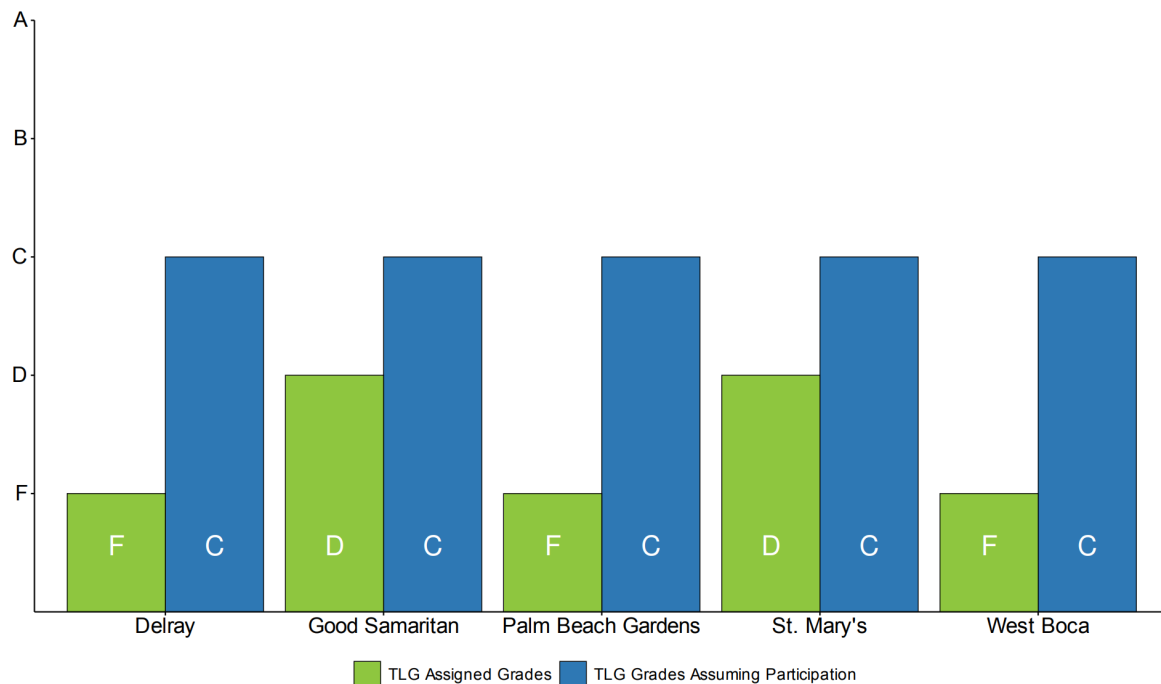
Exhibit 5
TLG's Methodology Penalizes Non-Participating Hospitals (Spring 2025)



Source: TLG Hospital Safety Grade data

Note: This figure demonstrates the impact of rescoring seven of the total 12 measures that hospitals participating in TLG's survey self-report. These seven measures are the ones that for non-participating hospitals, TLG either imputes the lowest possible value (Computerized Physician Order Entry (CPOE), Bar Code Medication Administration (BCMA), ICU Physician Staffing (IPS), Hand Hygiene) or omits in the calculation of the final grade (Safe Practice 1: Culture of Safety Leadership Structures and Systems, Safe Practice 2: Culture Measurement, Feedback, and Intervention, and Total Nursing Care Hours per Patient Day). By contrast, as shown in Exhibit 2, on each of these measures, 50% or more of participating hospitals self-report the maximum possible score. As a result, to construct the counterfactual grades that TLG would have assigned non-participating hospitals had they participated in the survey, I conservatively rescore each of the seven measures to be the average score reported by participating hospitals. This rescoring does not affect TLG's "Step 1" imputation. If TLG uses historical data to calculate a previously participating hospital's score on a given measure, this analysis does so too. TLG's "Step 1" imputation affects 38 out of 592 non-participating hospitals.

Exhibit 6
TLG's Methodology Penalizes Plaintiffs as Non-Participating Hospitals (Spring 2025)



Source: TLG Hospital Safety Grade data

Note: This figure demonstrates the impact of rescoring seven of the total 12 measures that hospitals participating in TLG's survey self-report. These seven measures are the ones that for non-participating hospitals, TLG either imputes the lowest possible value or omits in the calculation of the final grade. By contrast, as noted by Smith et al. (2017) and as shown in Exhibit 2, 50% or more of participating hospitals self-report the maximum possible value on all or nearly all such measures. As a result, to construct the counterfactual grades that TLG would have assigned Plaintiffs had they participated in the survey, I conservatively rescore each of the seven measures to be the average score reported by participating hospitals.

67. The statistics literature recommends several methods to address missing data from survey non-participants, none of which involve TLG's current method of arbitrarily imputing the lowest-possible value for non-participating hospitals.¹⁴¹ TLG has explained the rationale for this Fall 2024 change in its imputation model as follows: "[h]ospitals that decline to complete the Survey should not inadvertently benefit when compared to hospitals that demonstrate, through transparency, [that] they are on a pathway to achieve Leapfrog's high standards for patient safety."¹⁴² In other words, TLG seems to be suggesting that non-participation in its survey indicates lack of transparency, and that this lack of transparency in

¹⁴¹ TLG's imputation model is referred to as "single imputation" by statisticians. See Derrick A. Bennett, "How Can I Deal with Missing Data in My Study?" *Australian and New Zealand Journal of Public Health* 25(5) (2001): pp. 464–469 ("Bennett (2001)"), p. 465. The statistics literature supports several established approaches to single imputation such as "Last value carried forward," "Mean substitution," "Regression methods," "Hot-deck imputation," and "Cold-deck imputation." See Bennett (2001), p. 465. See also LEAPFROG00427863 – 8 at LEAPFROG00427863 ("we can't say [a score was calculated with] 'external data sources' because we're arbitrarily assigning them [hospitals that declined to report data for this measure] the points associated with the bottom scoring category ('limited achievement') or old data from the previous Survey (internal data source). Leah wanted us to make it sound like the expert panel approved it and the assigning of these points was legitimate.").

¹⁴² Final Updates to Fall 2024 TLG Scoring Methodology, pp. 2–3.

turn indicates lower hospital safety. Similarly, on its website, TLG features an interview with Ashley Tait-Dinger, Director at the Florida Alliance for Healthcare Value, in which she states that, “if a hospital or an ambulatory surgical center chooses not to participate in the hospital survey, that’s a big red flag... that they are not supportive of transparency... what is it that they’re hiding?”¹⁴³

68. Yet, I am not aware of any evidence provided by TLG to support such implied claims that lack of participation in its survey is a signal of lower hospital safety. Thus, TLG has no basis to assume that non-participating hospitals would have meaningfully lower values for these safety measures than participating hospitals.¹⁴⁴ Indeed, this assumption is contradicted by academic literature that has found in numerous settings, including the health care context, lack of survey participation is *not* an indicator of an entity lagging behind survey participants.¹⁴⁵ It is also contradicted both by Hwang et al. (2014) and Smith et al. (2017) discussed above.¹⁴⁶ Smith et al. (2017) also found no statistically significant differences between hospitals that chose to participate in TLG’s hospital survey and those that did not, in terms of several patient health outcomes measured by CMS in its Hospital Compare program.¹⁴⁷ This lack of differentiation is illustrated in Exhibit 7.

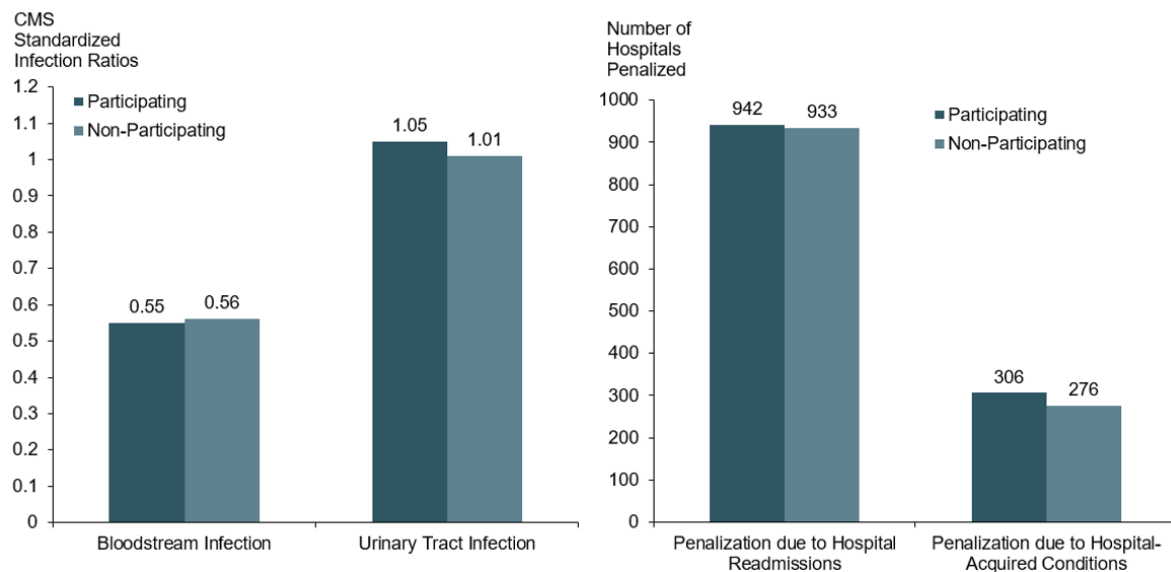
¹⁴³ “License the Leapfrog Hospital Safety Grade,” *The Leapfrog Group*, available at <https://www.hospitalsafetygrade.org/Licensure/DataLicense>; Transcription of YouTube Video: The Leapfrog Hospital Safety Grade, *Good Samaritan Medical Center, Inc., et al v. The Leapfrog Group*, Case No. 9:25-cv-80526, May 15, 2025, 2:10–20.

¹⁴⁴ I understand that TLG has stated that “[it] is not itself in possession of data showing Plaintiffs’ performance on the ‘imputed metrics’ considered by the methodology.” See Defendant The Leapfrog Group’s Responses to Plaintiffs’ Requests for Production, *Good Samaritan Medical Center, Inc., et al. v. The Leapfrog Group*, Case No. 9:25-CV-80526-DMM, July 1, 2025, No. 13.

¹⁴⁵ Mark Meterko et al., “Response Rates, Nonresponse Bias, and Data Quality: Results from a National Survey of Senior Healthcare Leaders,” *Public Opinion Quarterly* 79(1) (2015): pp. 130–144.

¹⁴⁶ Smith et al. (2017), p. 613; Hwang et al. (2014), p. 111.

¹⁴⁷ As noted further above, the 2017 study examined four types of patient outcomes—two outcomes related to hospital performance in terms of patient readmission rates and new patient conditions acquired during a hospital stay under the HRRP and the HACRP, and two types of infections observed among hospital patients—CLABSIs and CAUTIs. Smith et al. (2017), Table 2, pp. 1 – 2.

Exhibit 7**Hospitals That Participate in TLG's Survey Do Not Always Perform Better Than Those That Do Not**

Source: Smith et al. (2017).

Note: The left-hand panel shows SIRs obtained from CMS Hospital Compare. SIRs are risk-adjusted measures that divide the number of observed infections by the number of predicted infections calculated from: (1) Bloodstream Infection (CLABSI) and (2) Urinary Tract Infection (CAUTI) rates from a standard population. SIRs >1.0 indicate more infections observed than predicted, whereas SIRs <1.0 indicate fewer observed than predicted. The right-hand panel shows hospital penalization counts: hospitals whose HACs or readmissions during the evaluation period exceeded expected values. The right-hand panel shows: (3) Penalization due to Hospital Readmissions (i.e. penalizations under the HRRP), which could result in a penalty of up to 3% of total hospital Medicare reimbursement, and (4) Penalization due to HAC (i.e. penalizations under the HACRP), which could result in a penalty of up to 1% of total hospital Medicare reimbursement amounts. Smith et al. (2017) conducted statistical tests to examine whether there are statistically significant differences in any of these patient outcomes between participating and non-participating hospitals and found no such differences. In these data, the number of participating and non-participating hospitals were approximately the same (1098 hospitals participated and 1080 hospitals did not participate).

C. TLG's Grades Are Not Reliable Indicators of Actual Patient Health and Safety Outcomes in Hospitals

69. As discussed in Section VII, it is important for hospital ratings to serve as reliable indicators of actual patient health and safety outcomes. TLG's safety grades have been found to be severely deficient in this regard, in part by focusing more on structures and protocols rather than on actual clinical processes and patient outcomes.¹⁴⁸

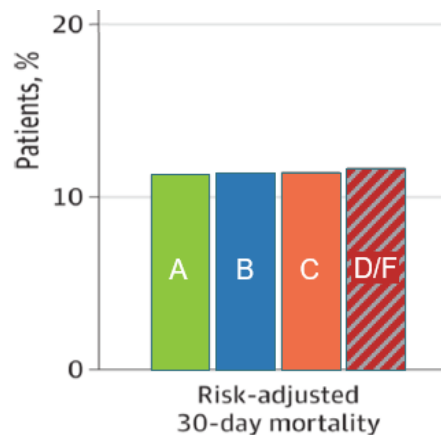
70. For instance, one study examined the extent to which TLG's grades had any association with the actual incidence of certain common infections in hospitals, such as CLABSIs, finding no statistically significant relationship.¹⁴⁹ CLABSIs are a major source of hospital-acquired infections, result in significant cost of care to hospitals, and are associated

¹⁴⁸ Smith et al. (2017), p. 606.

¹⁴⁹ Smith et al. (2017), p. 610.

with mortality rates of up to 30%.¹⁵⁰ Another study found that TLG's grades do not consistently or accurately predict the prevalence of infections that occur in rated hospitals, with "A" grade hospitals performing no better than "B" and "C" grade hospitals in terms of controlling certain infections, such as MRSA bloodstream infections.¹⁵¹ TLG's grades have also been shown to have no statistically significant relationship with other patient outcomes, such as surgical mortality or trauma outcomes.¹⁵² Yet another study found that among hospitals receiving "A," "B," or "C" grades, there were only negligible differences in patient mortality, surgical complications, and patient readmission rates.¹⁵³ Exhibit 8 and Exhibit 9 illustrate some of these findings.¹⁵⁴

Exhibit 8
Higher Graded Hospitals by TLG May Not Have Significantly Better Mortality Outcomes



Source: Gonzalez et al. (2014)

Note: Risk-adjusted 30-day mortality rates are measured for medical admissions. Gonzales et al. (2014) find no statistically significant difference in risk-adjusted 30-day mortality between hospitals receiving "A," "B," or "C" grades from TLG.

¹⁵⁰ Keyvan Rahmani et al., "Early Prediction of Central Line Associated Bloodstream Infection Using Machine Learning," *American Journal of Infection Control* 50(4) (2022): pp. 440–445.

¹⁵¹ Amy L. Pakyz et al., "Leapfrog Hospital Safety Score, Magnet Designation, and Healthcare-Associated Infections in United States Hospitals," *Journal of Patient Safety* 17(6) (2021): pp. 445–450.

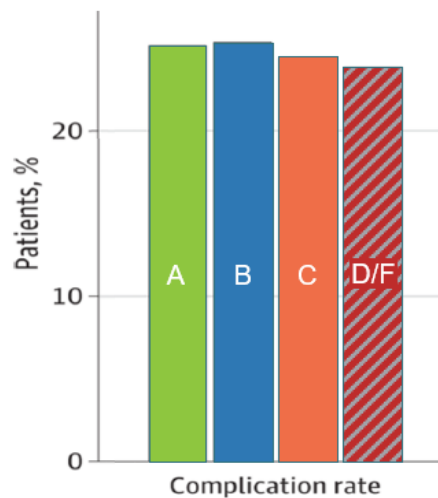
¹⁵² Smith et al. (2017).

¹⁵³ Andrew A. Gonzalez and Amir A. Ghaferi, "Hospital Safety Scores: Do Grades Really Matter?" *JAMA Surgery* 149(5) (2014): pp. 413–414 ("Gonzalez et al. (2014)"), p. 2.

¹⁵⁴ The evidence from academic studies presented in this section is also corroborated by my own analysis. Using data produced by TLG in this matter and data gathered from CMS, I conducted statistical tests comparing how differently graded hospitals performed on average on each of TLG's 10 outcome measures reported in Spring 2025. This analysis indicates that for many of these outcome measures, there are no statistically significant differences between hospitals assigned different safety grades by TLG. Specifically, when comparing the average outcomes for "B" grade hospitals to "C" grade hospitals, the difference is not statistically significant for 5 of the 10 outcome measures (CAUTI, SSI: Colon, MRSA, Air Embolism, and Foreign Object Retained). Similarly, when comparing the average outcomes for "C" grade hospitals to "D/F" grade hospitals, the difference is not statistically significant for 4 of the 10 measures (SSI: Colon, PSI 04, Air Embolism, and Foreign Object Retained). This analysis again demonstrates that TLG's grades are not always reliable indicators of actual patient health and safety outcomes. Workpaper 8.

Exhibit 9

Higher Graded Hospitals by TLG May Have Higher Surgical Complication Rates



Source: Gonzalez et al. (2014); “After Surgery: Discomforts and Complications,” Johns Hopkins Medicine, <https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/after-surgery-discomforts-and-complications>.

Note: Surgical complications may refer to a number of different negative patient outcomes experienced during surgery including shock, bleeding, wound infection, deep vein thrombosis, pulmonary embolism, lung problems, urinary retention, and reaction to anesthesia.

71. Taken together, these findings indicate that TLG’s safety grades are not reliable predictors of actual patient outcomes. One explanation for this lack of predictive power might be the methodological flaws in the measures underlying TLG’s safety grades, which I have noted in Sections X.A and B above. Regardless of the explanation, the empirical evidence that better safety grades given by TLG to some hospitals are not always associated with better health outcomes experienced by patients in those hospitals demonstrates that TLG’s safety grades fail to achieve their stated purpose of “educat[ing] consumers and purchasers about the safety and quality of healthcare facilities in their community so they can choose the best place for their care.”¹⁵⁵

Executed this 7th day of August, 2025

Sean Nicholson

¹⁵⁵ TLG How Our Ratings Are Used.

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Braun, Robert Tyler, Sean Nicholson, Michael Richards, Derek Lake, Rahul Fernandez, Brendan O'Connell, and Larry Casalino, 2024, "Association of Optum Ownership of Physician Practices with Medicare Advantage Risk Scores."

Nicholson, Sean, Michael Waldman, and Robin Wang, 2024, "Autism Diagnosis Rates and Precipitation: Evidence from the United Kingdom, 1995-2013."

Nicholson, Sean, Stephenson Strobel, and Xingqi Ye, 2024, "Access, Health and Wealth: The Short and Long Run Effects of the Saskatchewan Municipal Doctors Scheme on Rural Access to Physicians, Health Improvements, and Economic Well-being."

Research Grants

Principal Investigator, Gilead Sciences, The Business Impact of Environmental, Social, and Governance (ESG) Programs and Policies in the Pharmaceutical Industry.

Co-investigator, Cornell University Cross Campus Health Policy Seed Grant, Implications of PBM Consolidation on Pharmaceutical Access and Related Disparities. Pragya Kakani, Principal Investigator. Award: \$20,000.

Co-investigator, Cornell University Cross Campus Health Policy Seed Grant, The Effect of Medicaid Expansion on Pharmacy Availability in Disproportionately Black and Hispanic Neighborhoods. Pragya Kakani, Principal Investigator. Award: \$15,000.

Co-investigator, Laura & John Arnold Foundation, The Impact of Health Insurer Acquisition of Physician Practices and Ambulatory Surgery Centers on Commercial Prices and Spending. Award: \$82,000 (9/2022 – 3/2024).

Co-investigator, Substance Abuse and Mental Health Services Administration, Addressing Buffalo's Opioid Epidemic with Medication-Assisted Treatment. Joseph Stankaitis, Principal Investigator. Award: \$523,000 (9/2018 – 9/2021).

Co-investigator, Agency for Healthcare Research and Review, The Medicaid Fee Bump: Increased Reimbursements to Primary Care Providers and Health Care Utilization Among Dual-Eligibles with Chronic Conditions. Mark Unruh, Principal Investigator. Award: \$78,000 (9/2017 – 9/2020).

Co-Investigator, Robert Wood Johnson Foundation, 73185, Exploring Cash Markets for Health Care and Related Policy Changes Needed to Enable a Consumer-Oriented, Value-Based Health System. Jordan Epstein, Principal Investigator. Award: \$120,000 (1/2016 – 10/2016).

Co-Investigator, Agency for Healthcare Research & Quality, R01HS022306, Relative Price, Payer Mix and Regional Variations in Medical Care. Jonathan D. Ketcham, Principal Investigator. Award: \$282,000 (2013 – 2014).

Principal Investigator, FAIR Health (subcontract from Syracuse University), Developing a New Method to Determine Out-of-Network Payments. Award: \$410,000 (1/11 – 12/13).

Principal Investigator, gift from Larry Stern, Is the Additional Money the U.S. Spends on Medical Care Relative to Europe Worth It? Award: \$100,000 (1/12 – 12/13).

Principal Investigator, FAIR Health (subcontract from Syracuse University), Developing a New Method to Determine Out-of-Network Payments. Award: \$50,000 (8/10 – 12/10).

Principal Investigator, Pfizer, A Quality-adjusted Price Index for Lung and Breast Cancer Drugs. Award: \$82,000 (3/08 – 12/08).

Investigator, National Board of Medical Examiners, Clinical Outcome-Based Assessment of Medical Education: Concept and Evaluation. David A. Asch, Principal Investigator. Award: \$150,000 (7/07 – 6/08).

Principal Investigator, Pfizer, Johnson & Johnson, and AstraZeneca, A Quality-adjusted Price Index for Colon Cancer Drugs: 1993-2005. Award: \$72,000 (8/06 – 12/07).

Principal Investigator, Merck & Co., Inc., The Impact of Pay-for-Performance Programs on Health Outcomes and the Delivery of Medical Care. Award: \$25,000 (12/05 – 10/06).

Principal Investigator, Integrated Benefits Institute, The Cost of Absences in the Retail Sales Industry, Award: \$5,000 (12/05 – 8/06).

Investigator, Robert Wood Johnson Foundation, Costs and Benefits of Physician Interaction with Health Plans. Lawrence Casalino, Principal Investigator. Award: \$101,000 (9/05 – 8/06).

Principal Investigator, Merck Company Foundation, A Quality-adjusted Price Index for Cancer Drugs. Award: \$35,000 (1/05 – 12/06).

Principal Investigator, Centers for Disease Control and Prevention, A New Method of Valuing Investments in Workers' Health. R01 CD000011-01. Award: \$725,000 direct costs (9/04 – 9/07).

Principal Investigator, Cornell University, Determinants of Physician and Hospital Adoption of New Medical Technologies. Award: \$30,000 (3/05-3/08).

Co-principal investigator, Mack Center for Technological Innovation, University of Pennsylvania, Incentives to Innovate in the Biotechnology and Pharmaceutical Industries. Andrew Metrick, Principal Investigator. Award: \$14,000 (7/04 – 6/05).

Principal Investigator, The Research Foundation, University of Pennsylvania, Incentives to Innovate in the Biotechnology and Pharmaceutical Industries. Award: \$16,000 (2/04 – 6/05).

Principal Investigator, U.S. Department of Agriculture. Determinants of Physicians' Treatment Choices. Award: \$5,000 (7/04 – 6/05).

Wharton Program on Pharmaceutical Policy, Economics and Management, Merck & Company Foundation. Patricia Danzon, Principal Investigator. Award: \$1,090,910 (1/00-12/05).

Principal Investigator, The Leonard Davis Institute of Health Economics, University of Pennsylvania. Physician Learning, Information Diffusion, and Best Practice Adoption. Award: \$10,000 (7/02 - 6/03).

Developing and Validating a Measure of the Impact of Absenteeism and Reduced Presenteeism on Worker and Team Productivity. Merck & Company. Mark V. Pauly, Principal Investigator. Award: \$171,000 (7/02 - 6/03).

Principal Investigator, The Research Foundation, University of Pennsylvania. The Impact of Managed Care on the Delivery of Medical Care. Award: \$12,000 (7/01 – 6/02).

Health Plan Choices and Adverse Selection in Employer-Sponsored Health Insurance. Robert Wood Johnson Foundation. Daniel Polsky, Principal Investigator. Award: \$125,000 (2/02 – 7/03).

Current and Potential Labor Shortages in Child Neurology. Child Neurology Society. Daniel Polsky, Principal Investigator. Award: \$100,000 (10/01 – 9/02).

Evolution of HMOs and Risk Selection. The Robert Wood Johnson Foundation. Daniel Polsky, Principal Investigator. Award: \$100,000 (2/99 - 1/00).

Principal Investigator, The Research Foundation, University of Pennsylvania. Determinants and Accuracy of Income Expectations. Award: \$21,000 (7/98 - 6/99).

Principal Investigator, Population Studies Center, University of Pennsylvania. Government Reimbursement of Medicare HMOs. Award: \$19,000 (7/99 - 6/00).

Provision of Community Benefits Among the Federation of American Hospital Systems□ Member Hospitals. Federation of American Hospital Systems. Mark V. Pauly, Principal Investigator. Award: \$77,000 (1/99 - 9/99).

Measuring the Effects of Health-improving Employee Benefits on Employer Profits and Productivity. Merck & Company. Mark V. Pauly, Principal Investigator. Award: \$140,000 (9/99 - 12/00).

Department of Health and Human Services, Bureau of Health Professions. Health Administration Trainingships and Special Projects. Mark V. Pauly, Principal Investigator. Award: \$146,000 (1/97 - 6/02).

Co-principal investigator, Huntsman Emerging Technologies Program. Determinants of R&D Success in Biotech and Pharmaceuticals. Award: \$14,000.

Co-principal investigator. Merck & Company. Determinants of R&D Success in Biotech and Pharmaceuticals. Award: \$10,000.

Co-principal investigator, Huntsman Emerging Technologies Program. Efficiency in the Market for Biotech-Pharmaceutical Deals. Award: \$14,000.

External Presentations

“Elevated End-of-Life Spending: A New Measure of Potentially Wasteful Spending at End of Life,” University of Georgia (December 2022).

“Quality-Adjusted Prescription Drug Price Indexes,” Ireland Health Economics Masterclass, Dublin, Ireland (March 2022).

“Price Indices and the Value of Innovation When Preferences are Heterogeneous,” Hoover Institution, Stanford University (remote) (June 2020).

“A Cash Market for Imaging in California,” American Society of Health Economists conference, Philadelphia, PA (June 2016).

“Relative Prices, Payer Mix and Regional Variations in Medical Care,” University of North Carolina (February 2019); Weill Medical College (May 2018); Indiana University (October 2017); University of Southern California (April 2015); University of Connecticut, Storrs, CT (September 2014); The Danish National Centre for Social Research, Copenhagen, Denmark (April 2014); Vanderbilt University, Nashville, TN (March 2014); University of Pennsylvania, Philadelphia, PA (December 2013).

“Insurer and Patient Payments for Out-of-Network Physician Services,” International Health Economics Association meetings, Sydney Australia (July 2013).

“The Effect of Educational Debt on Dentists’ Career Decisions,” Weill Medical College, New York, NY (November 2013); Intelligence Fair, American Dental Association, Chicago, IL (May 2013).

“Bundling Among Rivals: a Case of Pharmaceutical Cocktails,” University of Southern California, Los

Angeles, CA (December 2011).

“Supply Side Implications of Insurance Coverage Expansions: Research Insights for Policy,” Academy Health conference, Washington, D.C. (December 2011).

“The Effect of the Economy on Health and Health Related Behaviors,” University of Colorado – Denver School of Public Health, Denver, CO (January 2011); Work, Stress and Health 2011 conference, Orlando, FL (May 2011); The Danish National Centre for Social Research seminar, Copenhagen, Denmark (June 2011); International Stress Management Association international congress, Porto Alegre, Brazil (June 2012).

“What is the Value of a Healthy Worker to a Company?” keynote address at the International Stress Management Association international congress, Porto Alegre, Brazil (June 2012); keynote address at the Work, Stress and Health 2011 conference, Orlando, FL (May 2011).

“Specialization and Matching in Professional Services Firms,” Boston University/Harvard University/MIT University health economics seminar, Boston, MA (March 2010); University of Connecticut School of Business, Storrs, CT (April 2010).

“What Does the U.S. Buy and What Does It Get From Its Cancer Chemotherapy Purchases Compared to European Nations?” University of Porto Business School, Porto, Portugal (March 2010); American Society of Health Economics conference, Ithaca, NY (June 2010); Academy Health, Boston, MA (June 2010).

“Medical Workforce,” Harvard University, Handbook of Health Economics, Volume 2 conference, Cambridge, MA (October 2010).

“Financing Research and Development,” conference on the Economics of the Biopharmaceutical Industry, The Wharton School (November 2009).

“A Quality-Adjusted Price Index for Colorectal Cancer Drugs,” Health Economics Interest Group, Academy Health, Orlando, Florida (June 2007); Ad Hoc Pharmaceutical Group, New York City (October 2007); Pharmaceutical Economics and Policy Council, Rome, Italy (November 2007); Duke University (April 2008); University of Chicago (May 2008); Missoula Tumor Board, Missoula, MT (July 2008); National Bureau of Economic Research (November 2008); Bureau of Economics Analysis, Washington, D.C. (September 2011); Value of Innovation in Cancer Care conference, Princeton, NJ (November 2011).

“Medical Career Choices and Rates of Return,” Council of Graduate Medical Education, Rockville, MD (May 2008).

“A Simple Measurement Tool to Measure a Company’s Absenteeism and Presenteeism Costs,” The Conference Board: The Wellness Advantage, Boca Raton, FL (December 2008).

“Valuing Reductions in On-the-Job Illness: ‘Presenteeism’ From Managerial and Economic Perspectives,” International Health Economics Association conference, Copenhagen, Denmark (July 2007).

“Is Early Childhood Television Watching an Environmental Cause of Autism?” NBER Health Care Meeting, Cambridge, MA (October 2006); Yale School of Public Health, New Haven, CT (September 2007); Penn State University (October 2007); Federal Trade Commission (October 2007).

“Does Financing Have a Real Effect on Drug Development?” RAND Corporation, Los Angeles, California (September 2006); University of Illinois-Chicago, Chicago, IL (October 2006); ASHE conference, Madison, WI (June 2006); Pharmaceutical Economics and Policy Council, Chicago, IL (January 2007); BIO Conference, Boston, MA (May 2007).

“Specialization and Sorting in the Obstetrics Market?” NBER Health Care Meeting (May 2006); Syracuse University (October 2005); University of Chicago (January 2005).

“A New Method of Valuing Investments in Workers’ Health,” IBI/NBGH Joint Forum on Health, Productivity, and Absence Management, Washington, D.C. (November 2006); IBI Research Meeting, Philadelphia, PA (April 2007); Centers for Disease Control and Prevention, Atlanta (April 2006); Investment Forum Foundation meeting, Washington, D.C. (March 2006).

“Incentives to Innovate in the Biotech and Pharmaceutical Industries,” International Health Economics Association conference, Barcelona, Spain (July 2005).

“How to Quantify the Financial Value of Improvements in Workers’ Health?,” International Health Economics Association conference, Barcelona, Spain (July 2005); Centers for Disease Control and Prevention, Atlanta (April 2005); Consumers, Information and the Evolving Healthcare Marketplace conference, Cornell University (April 2005).

“Mergers and Acquisitions in the Pharmaceutical and Biotech Industries”: Pharmaceutical Economics and Policy Council (January 2005); Federal Trade Commission (March 2004); Lehigh University (November 2003); University of Rochester (October 2003).

“Physician Learning and Best Practice Adoption: An Application to Cesarean Sections”: Weill Cornell Medical Center, New York, NY (March 2006); American Economics Association annual meeting (January 2004); Medical University of South Carolina (January 2004); Cornell University (January 2004); Columbia University/NYU/CUNY seminar (September 2003); NBER Summer Institute (July 2003); International Health Economics Association meeting (June 2003); 14th Annual Health Economics Conference (April 2003); Brigham Young University (February 2003); Dartmouth College (October 2002).

“Barriers to Entering Medical Specialties”: Federal Trade Commission (April 2004); Yale University (October 2003); Brigham Young University (February 2003); International Health Economics Association meetings (July 2001).

“Peer Effects in Medical School”: Stanford University (February 2002); University of Wisconsin-Madison (November 2001); College of William and Mary (September 2001); 12th Annual Health Economics Conference (June 2000); National Board of Medical Examiners (June 2000).

“Biotech-Pharmaceutical Alliances as a Signal of Asset and Firm Quality”: Northwestern University (February 2002); Program on Pharmaceutical Policy Issues Research Conference, University of Siena, Italy (February 2002).

“Physician Income Prediction Errors: Sources and Implications for Behavior,” University of Chicago (February 2002); Stanford University (February 2002); University of California-Berkeley (February 2002).

“The Magnitude and Nature of Risk Selection in Employer-Sponsored Health Plans”: University of California, Irvine (June 2003); International Health Economics Association meeting (June 2003); 8th

Northeast Regional Health Economics Research Symposium (August 2002); University of Wisconsin-Madison (November 2001); Johns Hopkins School of Hygiene and Public Health (May 2001).

“Physician Income Expectations and Specialty Choice”: Survey Research on Household Expectations and Preferences, University of Michigan (November 2001); Iowa State University (November 2001); Duke University (November 1999); International Health Economics Association meetings (June 1999).

“Developing and Validating a Measure of the Impact of Absenteeism and Reduced Presenteeism on Worker and Team Productivity,” International Health Economics Association meetings (June 2003).

“The Effect of Patient Outcomes on Physicians’ Patient Volumes, Patient Severity, and Treatment Methods,” International Health Economics Association meetings (June 2003).

“Private Sector Drug Development Alliances,” Wharton Impact Conference: Pharmaceutical Innovation in the Global Economy (October 2002).

“Personal Economics and Other Factors Influencing Specialty Selection,” Institute of Medicine Workshop on the Obstacles to the Incorporation of Research Into Psychiatry Residency Training (June 2002).

“Determinants of R&D Success: Drugs or Firms?,” Merck & Company (October 2001).

“Measuring Community Benefits Provided by For-Profit and Nonprofit Hospitals,” St. Louis Area Business Health Coalition (March 2001).

“Public Policy and Health Expenditures,” A New Paradigm for Social Welfare in the New Millenium, East-West Center (January 2001).

“The Unintended Consequences of Medicare’s Payment Policies”: American Enterprise Institute (March 1999); 6th Northeast Regional Health Economics Research Symposium (August 1998).

“Applying the RBRVS Concept to Medical Education,” American Medical Association Section on Medical Schools (December 1998).

“The Effect of Federal Policy on Hospital Care for the Poor,” 10th annual Health Economics Conference (June 1998).

Teaching

The U.S. Health Care System, PAM 2350 (undergraduate): 2008 - 2023

Health Care Organizations and Behavior, PAM 5353 (executive MHA): 2019 – 2024.

Health Care Financial Management II, PAM 5630 (masters): 2004 - 2009; 2011 - 2023.

Health Care Finance, PAM 5633 (executive MHA): 2020 - 2024.

Key Management Issues in the Biotech and Pharmaceutical Industries, PAM 5900 (executive): 2019 - 2024.

Pharmaceutical Management and Policy, PAM 3110 (undergraduate): 2012 - 2014.

Perspectives on Health Policy and Management in the U.S., PAM 2351 (undergraduate), 2020.

Health Care Financial Management, PAM 5620 (masters): 2005 - 2006.

Information Resources Management in Health Care Organizations, PAM 5641 (masters): 2007-2009; 2015-2020.

Financial Management of Health Institutions, HCMG 849 (MBA): 1998-2003.

The Economics of Health Care and Policy, HCMG 844 (Ph.D./MBA): 1997-2004.

e-Health: Business Models and Impact, HCMG 866 (MBA): 2001-2004.

The Economics of Information in the Health Care Market HCMG 900 (Ph.D.): 2002.

Financial Management of Health Institutions, HCMG 214 (undergraduates): 1999.

Service

Trustee, Atlantic Health System (Morristown, NJ), 2018 - present.

Trustee, Robert Packer Hospital, Guthrie Health System (Sayre, PA), 2009 - present.

Committee on Academic Programs & Policies, 2025 – 2028.

Member, Faculty Advisory Committee on Tenure Appointments, Cornell University, 2019 – 2021.

Chair, Faculty Committee on Program Review, Cornell University, 2017 – present (member 2017 – 2019).

School of Public Policy Planning Committee, Cornell University, 2020 – 2021.

School of Public Policy Dean Search Committee, Cornell University, 2021.

Faculty adviser, Swimming and Diving team, Cornell University, 2010 – present.

Study section reviewer, National Institutes of Health, Health Services Organization and Delivery Study Section, June 2007, February 2008, February 2010, and June 2012. NIA, fall 2017.

NSF grant reviewer: 2008 and 2009.

Study panel member, Treating the Health of the World Trade Center Rescue Workers, Centers for Disease Control and Prevention, Denver, CO, 2006.

Prior Testimony of Sean Nicholson in the Last Four Years

Trial Testimony, *The People of the State of California v. Purdue Pharma L.P., et al.*, Supreme Court of the State of California in and for the County of Orange, Case No. 30-2014-00725287-CY-BT-CXC, July 2021

Deposition, *Sandoz Inc. et al. v. United Therapeutics Corp. et al.*, United States District Court for the District of New Jersey, Case No. 3:19-cv-10170, August 2021

Deposition, *The State of Rhode Island, by and through Peter F. Neronha, Attorney General, v. Purdue Pharma L.P., et al.*, Supreme Court of the State of Rhode Island, Case No. PC2018-4555, September 2021

Deposition, *County of Dallas v. Purdue Pharma L.P., et al.*, District Court 116th Judicial District, Dallas County, Texas, Case No. 2018-77098, September 2021

Trial Testimony, *IN RE OPIOID LITIGATION: Suffolk County v. Purdue Pharma L.P., et al.*, Index No. 400001/2017, U.S. District Court for the Southern District of New York; *Nassau County v. Purdue Pharma L.P., et al.*, Index No. 400008/2017, U.S. District Court for the Southern District of New York; *The State of New York v. Purdue Pharma L.P., et al.*, Index No. 400016/2018, U.S. District Court for the Southern District of New York, November 2021

Deposition, *The State Florida, Office of the Attorney General, Department of Legal Affairs v. Purdue Pharma L.P., et al.*, Circuit Court of the Sixth Judicial Circuit In and For Pasco County, FL, Case No. 2018-CA-001438, December 2021

Deposition, *The City and County of San Francisco, California and The People of the State of California v. Purdue Pharma L.P., et al.*, U.S. District Court for the Northern District of California, Case No. 3:18-cv-07591-CRB, December 2021

Deposition, *Joseluis Gutierrez Montal, et al. v. Gilead Sciences, Inc., et al.*, Superior Court of Alameda County, RG19028249, (as to Plaintiff Shelton Stile only), in *Gilead Tenofovir Cases*, Judicial Council Coordination Proceeding (JCCP) No. 5043 (CJC-19-005043), Superior Court for the State of California, County of San Francisco, March 2022

Deposition, *The United States of America v. Gilead Sciences, Inc. and Gilead Sciences Ireland, UC*, United States Court of Federal Claims, Case No. 20-499 C, April 2022

Trial Testimony, *State of West Virginia ex rel., Patrick Morrissey, Attorney General v. Teva Pharmaceutical Industries, Ltd., et al.*, Circuit Court of Kanawha County, West Virginia, Civil Action No. 19-C-104 BNE, May 2022

Deposition, *State of New Mexico ex. rel. Hector Balderas, Attorney General vs. Purdue Pharma L.P., et al.*, New Mexico First Judicial District Court, County of Santa Fe, State of New Mexico, No. D-101-CV-2017-02541, May 2022

Deposition, *In Re: Valeant Pharmaceuticals International, Inc. Securities Litigation*, U.S. District Court for the District of New Jersey, Case No. 18-cv-00343-MASLHG, June 2022

Trial Testimony, *The City and County of San Francisco and the People of the State of California v. Purdue Pharma L.P., et al.*, United States District Court, Northern District of California, Case No. 3:18-cv-07591-CRB, June 2022

Trial Testimony, *The United States of America v. Gilead Sciences, Inc. and Gilead Sciences Ireland, UC*, United States Court of Federal Claims, Case No. 20-499 C, June/July 2022

Deposition, *In re: Insulin Pricing Litigation*, United States District Court for the District of New Jersey, Civil Action No. 17-699, August 2022

Deposition, *State of Nevada vs. McKesson Corporation, et al.*, District Court Clark County, Nevada, Case No. A-19-796755-B, January 2023

Deposition, *Mayor and City Council of Baltimore, and Government Employees Health Association v. Actelion Pharmaceuticals LTD., Actelion Pharmaceuticals US, Inc., Janssen Research & Development, LLC*, United States District Court for the District of Maryland, Case No. 1:18-cv-03560, July 2023

Deposition, *In re ACTOS Antitrust Litigation*, United States District Court, Southern District of New York, Case No. 1:13-cv-09244, February 2024

Deposition, *Mayor & City Council of Baltimore City v. Purdue Pharma L.P., et al.*, Circuit Court of Maryland for Baltimore City, Case No. 24C18000515, March 2024

Deposition, *Janssen Pharmaceuticals, Inc. v. Emergent Biosolutions, Inc., and Emergent Manufacturing Operations Baltimore, LLC*, American Arbitration Association, Case No. 01-22-9992-5304, April 2024

Trial testimony, *Sandoz Inc. et al. v. United Therapeutics Corp. et al.*, United States District Court for the District of New Jersey, Case No. 3:19-cv-10170, May 2024

Documents Considered List

Academic Literature

- Amitabh Chandra et al., “Health Care Exceptionalism? Performance and Allocation in the US Health Care Sector,” *American Economic Review* 106(8) (2016): pp. 2110–2144
- Amy L. Pakyz et al., “Leapfrog Hospital Safety Score, Magnet Designation, and Healthcare-Associated Infections in United States Hospitals,” *Journal of Patient Safety* 17(6) (2021): pp. 445–450
- Andrew A. Gonzalez and Amir A. Ghaferi, “Hospital Safety Scores: Do Grades Really Matter?” *JAMA Surgery* 149(5) (2014): pp. 413–414
- Andrew J. Epstein et al., “Association Between Physician Experience After Training and Maternal Obstetrical Outcomes: Cohort Study,” *BMJ* 346: f1596 (2013): pp. 2–10
- Andrew J. Epstein, Sean Nicholson, David A. Asch, “The Production of and Market for New Physicians’ Skill,” *American Journal of Health Economics* 2(1) (2016): pp. 41–65
- Avedis Donabedian, “Evaluating the Quality of Medical Care,” *The Milbank Quarterly* 83(4) (2005): pp. 691–729, reprinted from *The Milbank Memorial Fund Quarterly* 44(3) (1966): pp. 166–206
- Charlotte Kelly et al., “Are Differences in Travel Time or Distance to Healthcare for Adults in Global North Countries Associated with an Impact on Health Outcomes? A Systematic Review,” *BMJ Open* (2016)
- David A. Asch et al., “Evaluating Obstetrical Residency Programs Using Patient Outcomes,” *Journal of the American Medical Association* 302(12) (2009): pp. 1277–1283
- David A. Asch et al., “How Do You Deliver a Good Obstetrician? Outcome-Based Evaluation of Medical Education,” *Academic Medicine* 89(1) (2014): pp. 24–26
- David M. Cutler et al., “The Role of Information in Medical Markets: An Analysis of Publicly Reported Outcomes in Cardiac Surgery,” *American Economic Review* 94(2) (2004): pp. 342–346
- Derrick A. Bennett, “How Can I Deal with Missing Data in My Study?” *Australian and New Zealand Journal of Public Health* 25(5) (2001): pp. 464–469
- Devin G. Pope, “Reacting to Rankings: Evidence from ‘America’s Best Hospitals,’” *Journal of Health Economics* 28 (2009): pp. 1154–1165

- Donald Berwick and Daniel M. Fox, “Evaluating the Quality of Medical Care: Donabedian’s Classic Article 50 Years Later,” *The Milbank Quarterly* 94(2) (2016): pp. 237–241
- “Emergency Ambulance Destination,” *Annals of Emergency Medicine* 34(1) (1999)
- “Emergency Department Planning and Resource Guidelines,” *Annals of Emergency Medicine* 51(5) (2008): pp. 687–695
- J. Matthew Austin et al., “Safety in Numbers: The Development of Leapfrog’s Composite Patient Safety Score for U.S. Hospitals,” *Journal of Patient Safety* 9 (2013): pp. 1–9, available at https://www.hospitalsafetygrade.org/media/file/JournalofPatientSafety_HospitalSafetyScore.pdf
- Jon Nicholl et al., “The Relationship Between Distance to Hospital and Patient Mortality in Emergencies: An Observational Study,” *Emergency Medicine Journal* 24 (2007): pp. 665–668
- Joseph Stankaitis, Samyukta Singh, and Sean Nicholson, “Addressing Health Care Disparities Using a Health Plan Quality Measures Index,” *American Journal of Managed Care* 31(9) (2025): pp. 1–19
- Judith H. Hibbard, Jean Stockard, and Martin Tusler, “Hospital Performance Reports: Impact on Quality, Market Share, And Reputation,” *Health Affairs* 24(4) (2005): pp. 1150–1160
- Karl Y. Bilimoria et al., “Rating the Raters: An Evaluation of Publicly Reported Hospital Quality Rating Systems,” *NEJM Catalyst* 5(4) (2019)
- Keyvan Rahmani et al., “Early Prediction of Central Line Associated Bloodstream Infection Using Machine Learning,” *American Journal of Infection Control* 50(4) (2022): pp. 440–445
- Marjorie A. Erdmann et al., “Transparency in Hospital Safety: A field study of ‘what it takes’ for hospitals to complete the Leapfrog Group Hospital Survey,” *Oklahoma State Medical Proceedings* 8(1) (2024): pp. 1–18
- Mark Meterko et al., “Response Rates, Nonresponse Bias, and Data Quality: Results from a National Survey of Senior Healthcare Leaders,” *Public Opinion Quarterly* 79(1) (2015): pp. 130–144
- Nisha Kurian et al., “Predicting Hospital Overall Quality Star Ratings in the USA,” *Healthcare* 9(4) (2021): pp. 1–12
- Sarah A. Ibrahim et al., “The Evidence Base for US Joint Commission Hospital Accreditation Standards: Cross Sectional Study,” *BMJ* 377:e063064 (2022)

- Shawna N. Smith et al., “Dissecting Leapfrog: How Well Do Leapfrog Safe Practices Scores Correlate with Hospital Compare Ratings and Penalties, and How Much Do They Matter?” *Medical Care* 55(6) (2017): pp. 606–614
- ShinYi Chou, Mary E. Deily and Sihui Li, “Travel Distance and Health Outcomes for Scheduled Surgery,” *Medical Care* 52(3) (2014): pp. 250–257
- Sindhu K. Srinivas et al., “Improvements in US Maternal Obstetrical Outcomes From 1992 to 2006,” *Medical Care* 48(5) (2010): pp. 487–493
- Thomas C. Buchmueller, Mireille Jacobson and Cheryl Wold, “How Far To The Hospital?: The Effect Of Hospital Closures on Access to Care,” *Journal of Health Economics* 25(4) (2006): pp. 740–761
- Wenke Hwang et al., “Hospital Patient Safety Grades May Misrepresent Hospital Performance,” *Journal of Hospital Medicine* 9(2) (2014): pp. 111–115
- Yiran Dong and Chao-Ying Joanne Peng, “Principled missing data methods for researchers,” *SpringerPlus* 2(222) (2013): pp. 1–17

Books and Book Chapters

- Jeffrey M. Wooldridge, *Introductory Econometrics, 5e*, (Mason, OH: South-Western, Cengage Learning, 2013)
- Roderick J. A. Little and Donald B. Rubin, “Single Imputation Methods,” in *Statistical Analysis with Missing Data 3e* (Hoboken, NJ: Wiley, 2020), pp. 67–84

Bates Stamped Documents

- LEAPFROG00044966
- LEAPFROG00045043
- LEAPFROG00178624
- LEAPFROG00427863
- PBHN000002071
- PBHN000002076
- PBHN000002079
- PBHN000002086
- PBHN000002090
- PBHN000002095
- PBHN000002103

- PBHN000002104
- PBHN000002108
- PBHN000002112
- PBHN000002114
- PBHN000002128
- PBHN000002132
- PBHN000002136
- PBHN000002138
- PBHN000002140
- PBHN000002155
- PBHN000002159
- PBHN000002163
- PBHN000002165
- PBHN000002167
- PBHN000002182
- PBHN000002186
- PBHN000002190
- PBHN000002192
- PBHN000002194
- PBHN000002207
- PBHN000002211
- PBHN000002215
- PBHN000002217
- PBHN000002219

Codes and Regulations

- Fl. Code 395.1041(4)(e)
- Section 1886(b)(3)(B)(viii)(XI) of the Social Security Act

Data

- LEAPFROG00020679 (“TLG Hospital Safety Grade data”)
- CMS Hospitals Archived Data Snapshots

Expert Reports

- Expert Report of Jonah Berger, Ph.D., August 7, 2025

Industry Reports

- “2024 Condition-Specific Readmission Measures Updates and Specifications Report,” Yale New Haven Health Services Corporation — Center for Outcomes Research and Evaluation, April 2024, available at https://qualitynet.cms.gov/files/663548ea2b87360fd3523eff?filename=2024_CSR_US_Report_v1.0.pdf
- Marcus Berzofsky et al., “Estimation Procedures for Crimes in the United States Based on NIBRS Data,” *Bureau of Justice Statistics*, August 2022, available at <https://bjs.ojp.gov/content/pub/pdf/epcusbnbrsd.pdf>
- Matt Austin and Jordan Derk, “Lives Lost, Lives Saved: An Updated Comparative Analysis of Avoidable Deaths at Hospitals Graded by The Leapfrog Group,” *Armstrong Institute for Patient Safety and Quality Johns Hopkins Medicine* (2019)

Legal Documents

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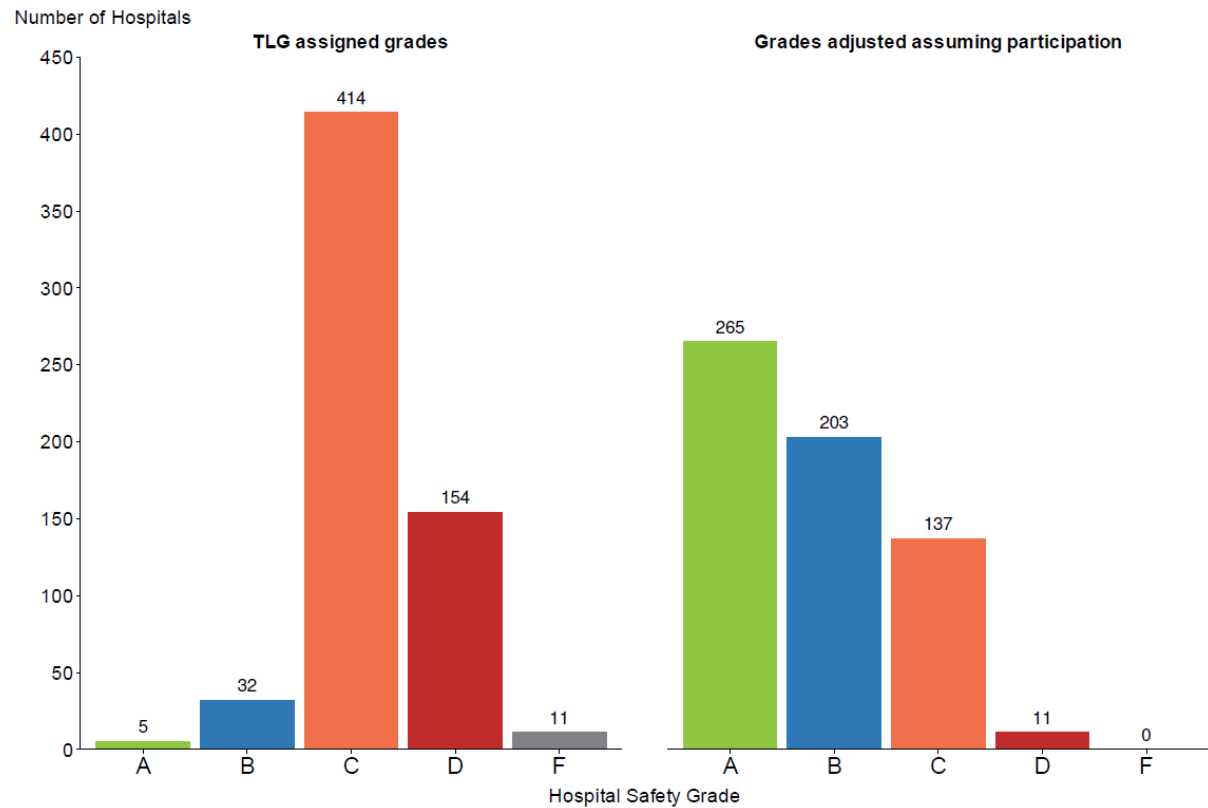
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Note: In addition to the documents on this list, I relied on all documents cited in my report to form my opinions.

Appendix D

TLG's Methodology Penalizes Non-Participating Hospitals (Fall 2024)



Source: TLG Hospital Safety Grade data

Note: This figure demonstrates the impact of rescoring seven of the total 12 measures that hospitals participating in TLG's survey self-report. These seven measures are the ones that for non-participating hospitals, TLG either imputes the lowest possible value (Computerized Physician Order Entry (CPOE), Bar Code Medication Administration (BCMA), ICU Physician Staffing (IPS), Hand Hygiene) or omits in the calculation of the final grade (Safe Practice 1: Culture of Safety Leadership Structures and Systems, Safe Practice 2: Culture Measurement, Feedback, and Intervention, and Total Nursing Care Hours per Patient Day). By contrast, as shown in Exhibit 2, on each of these measures, 50% or more of participating hospitals self-report the maximum possible score. As a result, to construct the counterfactual grades that TLG would have assigned Plaintiffs had they participated in the survey, I conservatively rescore each of the seven measures to be the average score reported by participating hospitals. This rescoring does not affect TLG's "Step 1" imputation. If TLG uses historical data to calculate a previously participating hospital's score on a given measure, this analysis does so too. TLG's "Step 1" imputation affects 48 out of 616 non-participating hospitals.

Workpaper 1

	Overall Score	Letter Grade
Mean Values	3.00	B
TLG Imputed Values	2.59	C

Source: "Explanation of Hospital Safety Grades," The Leapfrog Group, April 2025, available at https://www.hospitalsafetygrade.org/media/file/ExplanationofSafetyGrades_Spring2025.pdf, p. 2; "Leapfrog Hospital Safety Grade Scoring Methodology," *The Leapfrog Group*, April 21, 2025, available at <https://www.hospitalsafetygrade.org/media/file/Methodology-Spring-2025.pdf>, pp. 4–7, 15–17, 20, 22.

weights	Standard Measure Weight	Standard Measure Weight	
scores	Mean Score	Imputed Score	Standard Deviation
Measure	Mean Score Weighted	Imputed Score Weighted	Imputed Score Z-Score
CPOE	4.97426	0.93	-0.118461043
BCMA	4.9122	1.5	-0.112059113
IPS	4.49535	0.345	-0.09490853
SP 1	3.64219	NA	NA
SP 2	3.7392	NA	NA
Total Nursing Care Hours per Patient Day	3.62229	NA	NA
HHS	3.6456	0.735	-0.080536801
H-COMP-1	2.7057	NA	NA
H-COMP-2	2.6973	NA	NA
H-COMP-3	2.4489	NA	NA
H-COMP-5	2.30702	NA	NA
H-COMP-6	2.5575	NA	NA
Foreign Object Retained	0.000588	NA	NA
Air Embolism	0.000048	NA	NA
Falls and Trauma	0.018816	NA	NA
CLABSI	0.029295	NA	NA
CAUTI	0.02538	NA	NA
SSI Colon	0.028254	NA	NA
MRSA	0.032355	NA	NA
C. Diff.	0.018045	NA	NA
PSI 4	3.54904	NA	NA
PSI 90	0.1503	NA	NA

Measure	Evidence Score	Opportunity Score	Impact Score	Number of Component Measures	Standard Measure Weight
Process/Structural Measure Domain (50%)					
CPOE	2	1.43	3	1	6.2%
BCMA	2	1.37	3	1	6.0%
IPS	2	1.67	3	1	6.9%
SP 1	1	1.06	2	1	3.1%
SP 2	1	1.12	2	1	3.2%
Total Nursing Care Hours per Patient Day	2	1.41	2	1	4.7%
HHS	2	1.49	2	1	4.9%
H-COMP-1	1	1.03	2	1	3.0%
H-COMP-2	1	1.03	2	1	3.0%
H-COMP-3	1	1.05	2	1	3.0%
H-COMP-5	1	1.06	2	1	3.1%
H-COMP-6	1	1.04	2	1	3.0%
Outcome Measure Domain (50%)					
Foreign Object Retained	1	3.00	2	1	4.2%
Air Embolism	1	3.00	1	1	2.4%
Falls and Trauma	2	2.05	3	1	4.9%
CLABSI	2	1.85	3	1	4.5%
CAUTI	2	1.91	3	1	4.7%
SSI Colon	2	1.83	2	1	3.4%
MRSA	2	1.82	3	1	4.5%
C. Diff.	2	1.81	3	1	4.5%
PSI 4	1	1.14	2	1	2.0%
PSI 90	1	1.20	2	10	15.0%

Measure	Mean Score	Standard Deviation	Imputed Score
CPOE	80.23	34.14	15
BCMA	81.87	30.45	25
IPS	65.15	43.73	5
SP 1	117.49	6.79	NA
SP 2	116.85	13.98	NA
Total Nursing Care Hours per Patient Day	77.07	31.61	NA
HHS	74.4	36.14	15
H-COMP-1	90.19	2.51	NA
H-COMP-2	89.91	2.48	NA
H-COMP-3	81.63	4.36	NA
H-COMP-5	74.42	4.13	NA
H-COMP-6	85.25	3.7	NA
Foreign Object Retained	0.014	0.05	NA
Air Embolism	0.002	0.055	NA
Falls and Trauma	0.384	0.402	NA
CLABSI	0.651	0.552	NA
CAUTI	0.54	0.494	NA
SSI Colon	0.831	0.689	NA
MRSA	0.719	0.591	NA
C. Diff.	0.401	0.326	NA
PSI 4	177.452	24.02	NA
PSI 90	1.002	0.196	NA

Workpaper 2

Measure	Primary Data Source	Secondary Data Source	Standard Measure Weight
<i>Process Structural</i>			
CPOE	Survey	Imputation	6.2%
BCMA	Survey	Imputation	6.0%
IPS	Survey	Imputation	6.9%
SP 1	Survey	-	3.1%
SP 2	Survey	-	3.2%
Total Nursing Care Hours per Patient Day	Survey	-	4.7%
HHS	Survey	Imputation	4.9%
H-COMP-1	CMS	-	3.0%
H-COMP-2	CMS	-	3.0%
H-COMP-3	CMS	-	3.0%
H-COMP-5	CMS	-	3.1%
H-COMP-6	CMS	-	3.0%
<i>Outcome</i>			
Foreign Object Retained	CMS	-	4.2%
Air Embolism	CMS	-	2.4%
Falls and Trauma	CMS	-	4.9%
CLABSI	Survey	CMS	4.5%
CAUTI	Survey	CMS	4.7%
SSI Colon	Survey	CMS	3.4%
MRSA	Survey	CMS	4.5%
C. Diff.	Survey	CMS	4.5%
PSI 4	CMS	-	2.0%
PSI 90	CMS	-	15.0%
<i>Total Weight by Data Source</i>			
CMS			43.6%
Survey			56.6%
Imputation			24.0%

Source: "Leapfrog Hospital Safety Grade Scoring Methodology," *The Leapfrog Group*, April 21, 2025, available at <https://www.hospitalafetygrade.org/media/file/Methodology-Spring-2025.pdf>, pp. 4–7, 20.

Note: The total weights reported in TLG's scoring methodology do not add up to 100%. Adjusting the weights to add up to 100% do not meaningfully change the weights.

Workpaper 3

Hospital name	Spring 2025 TLG grade	Participated in TLG survey?	TLG grade source	Survey participation source
AdventHealth Altamonte Springs	A	Y	Link	Link
AdventHealth Carrollwood	A	Y	Link	Link
AdventHealth Celebration	A	Y	Link	Link
AdventHealth DeLand	A	Y	Link	Link
AdventHealth East Orlando	A	Y	Link	Link
AdventHealth Fish Memorial	A	Y	Link	Link
AdventHealth Ocala	A	Y	Link	Link
AdventHealth Orlando	A	Y	Link	Link
AdventHealth Wesley Chapel	A	Y	Link	Link
AdventHealth Winter Park	A	Y	Link	Link
Ascension Sacred Heart Pensacola	A	Y	Link	Link
Baptist Health Homestead Hospital	A	Y	Link	Link
Baptist Medical Center Beaches	A	Y	Link	Link
Baptist Medical Center Nassau	A	Y	Link	Link
Cape Coral Hospital	A	Y	Link	Link
HCA Florida North Florida Hospital	A	Y	Link	Link
HCA Florida Sarasota Doctors Hospital	A	Y	Link	Link
HCA Florida St. Lucie Hospital	A	Y	Link	Link
HCA Florida Westside Hospital	A	Y	Link	Link
Healthpark Medical Center	A	Y	Link	Link
Jupiter Medical Center	A	Y	Link	Link
Larkin Community Hospital	A	Y	Link	Link
Lee Memorial Hospital	A	Y	Link	Link
Mayo Clinic-Jacksonville	A	Y	Link	Link
Mease Countryside Hospital	A	Y	Link	Link
Mease Dunedin Hospital	A	Y	Link	Link
Morton Plant Hospital	A	Y	Link	Link
Morton Plant North Bay Hospital	A	Y	Link	Link
Orlando Health South Lake Hospital	A	Y	Link	Link
Oviedo Medical Center	A	Y	Link	Link
Sarasota Memorial Hospital	A	Y	Link	Link
St. Anthony's Hospital	A	Y	Link	Link
St. Joseph's Hospital	A	Y	Link	Link
St. Joseph's Hospital - North	A	Y	Link	Link
St. Joseph's Hospital - South	A	Y	Link	Link
UF Health Shands Hospital	A	Y	Link	Link
AdventHealth Apopka	A	Y	Link	Link
AdventHealth Dade City	A	Y	Link	Link
AdventHealth Kissimmee	A	Y	Link	Link
AdventHealth Lake Wales	A	Y	Link	Link
AdventHealth New Smyrna Beach	A	Y	Link	Link
AdventHealth North Pinellas	A	Y	Link	Link
AdventHealth Winter Garden	A	Y	Link	Link
AdventHealth Zephyrhills	A	Y	Link	Link
Baptist Health Hospital Doral	A	Y	Link	Link
Baptist Health South Miami Hospital	A	Y	Link	Link
Baptist Health West Kendall Baptist Hospital	A	Y	Link	Link
Baptist Medical Center Clay	A	Y	Link	Link
Bartow Regional Medical Center	A	Y	Link	Link
Broward Health Coral Springs	A	Y	Link	Link
Broward Health North	A	Y	Link	Link
Coral Gables Hospital	A	Y	Link	Link
HCA Florida Highlands Hospital	A	Y	Link	Link
HCA Florida Kendall Hospital	A	Y	Link	Link
HCA Florida Raulerson Hospital	A	Y	Link	Link
HCA Florida South Tampa Hospital	A	Y	Link	Link
HCA Florida Trinity Hospital	A	Y	Link	Link
Hialeah Hospital	A	Y	Link	Link
Holmes Regional Medical Center	A	Y	Link	Link
Lakewood Ranch Medical Center	A	Y	Link	Link
Larkin Community Hospital - Palm Springs Campus	A	Y	Link	Link
Memorial Hospital Miramar	A	Y	Link	Link
Memorial Hospital Pembroke	A	Y	Link	Link
Orlando Health Bayfront Hospital	A	Y	Link	Link
Orlando Health Horizon West Hospital	A	Y	Link	Link
Orlando Health Melbourne Hospital	A	Y	Link	Link
Sarasota Memorial Hospital - Venice	A	Y	Link	Link
St. Vincent's Medical Center Clay County	A	Y	Link	Link

Appendix E

Hospital name	Spring 2025 TLG grade	Participated in TLG survey?	TLG grade source	Survey participation source
St. Vincent's Medical Center Southside	A	Y	Link	Link
Winter Haven Hospital	A	Y	Link	Link
AdventHealth Daytona Beach	B	Y	Link	Link
AdventHealth Heart of Florida	B	Y	Link	Link
AdventHealth Palm Coast	B	Y	Link	Link
AdventHealth Sebring	B	Y	Link	Link
AdventHealth Waterman	B	Y	Link	Link
Ascension St. Vincent's Riverside	B	Y	Link	Link
Baptist Health Baptist Hospital of Miami	B	Y	Link	Link
Baptist Health Boca Raton Regional Hospital	B	Y	Link	Link
Baptist Health Doctors Hospital	B	Y	Link	Link
Baptist Medical Center Jacksonville	B	Y	Link	Link
Baptist Medical Center South	B	Y	Link	Link
Cape Canaveral Hospital	B	Y	Link	Link
Cleveland Clinic Hospital Weston	B	Y	Link	Link
Cleveland Clinic Indian River Hospital	B	Y	Link	Link
Gulf Coast Medical Center	B	Y	Link	Link
HCA Florida Aventura Hospital	B	Y	Link	Link
HCA Florida Blake Hospital	B	Y	Link	Link
HCA Florida Brandon Hospital	B	Y	Link	Link
HCA Florida Capital Hospital	B	Y	Link	Link
HCA Florida Englewood Hospital	B	Y	Link	Link
HCA Florida Fort Walton-Destin Hospital	B	Y	Link	Link
HCA Florida Gulf Coast Hospital	B	Y	Link	Link
HCA Florida Lake City Hospital	B	Y	Link	Link
HCA Florida Lawnwood Hospital	B	Y	Link	Link
HCA Florida Oak Hill Hospital	B	Y	Link	Link
HCA Florida Orange Park Hospital	B	Y	Link	Link
HCA Florida Osceola Hospital	B	Y	Link	Link
HCA Florida Pasadena Hospital	B	Y	Link	Link
HCA Florida South Shore Hospital	B	Y	Link	Link
HCA Florida St. Petersburg Hospital	B	Y	Link	Link
HCA Florida Twin Cities Hospital	B	Y	Link	Link
HCA Florida University Hospital	B	Y	Link	Link
HCA Florida West Hospital	B	Y	Link	Link
HCA Florida Woodmont Hospital	B	Y	Link	Link
Holy Cross Hospital	B	Y	Link	Link
Jackson West Medical Center	B	Y	Link	Link
Lehigh Regional Medical Center	B	Y	Link	Link
Lower Keys Medical Center	B	Y	Link	Link
Memorial Regional Hospital	B	Y	Link	Link
Naval Hospital Jacksonville	B	Y	Link	Link
NCH North Naples Hospital	B	Y	Link	Link
Orlando Health Dr. P. Phillips Hospital	B	Y	Link	Link
Orlando Health Lake Mary Hospital	B	Y	Link	Link
Orlando Health Sebastian River Hospital	B	Y	Link	Link
Orlando Health St. Cloud Hospital	B	Y	Link	Link
Orlando Health - Health Central Hospital	B	Y	Link	Link
Orlando Health - Orlando Regional Medical Center	B	Y	Link	Link
Palm Bay Hospital	B	Y	Link	Link
Sacred Heart Hospital On The Emerald Coast	B	Y	Link	Link
South Florida Baptist Hospital	B	Y	Link	Link
Tallahassee Memorial Healthcare	B	Y	Link	Link
UCF Lake Nona Medical Center	B	Y	Link	Link
UF Health Jacksonville	B	Y	Link	Link
UF Health Leesburg Hospital	B	Y	Link	Link
UF Health North	B	Y	Link	Link
UF Health-Spanish Plaines	B	Y	Link	Link
Viera Hospital	B	Y	Link	Link
AdventHealth Lake Placid	C	Y	Link	Link
AdventHealth Port Charlotte	C	Y	Link	Link
AdventHealth Tampa	C	Y	Link	Link
Ascension Sacred Heart Hospital Bay	C	Y	Link	Link
Ascension St. Vincent's St. Johns County	C	N	Link	Link
Baptist Health Bethesda Hospital East	C	Y	Link	Link
Baptist Health Bethesda Hospital West	C	Y	Link	Link
Baptist Hospital	C	N	Link	Link
Broward Health Imperial Point	C	Y	Link	Link

Hospital name	Spring 2025 TLG grade	Participated in TLG survey?	TLG grade source	Survey participation source
Broward Health Medical Center	C	Y	Link	Link
Cleveland Clinic Martin North Hospital	C	Y	Link	Link
Cleveland Clinic Martin South Hospital	C	Y	Link	Link
Cleveland Clinic Tradition Hospital	C	Y	Link	Link
Desoto Memorial Hospital	C	N	Link	Link
Flagler Hospital	C	Y	Link	Link
Florida Medical Center	C	Y	Link	Link
Gulf Breeze Hospital	C	N	Link	Link
Halifax Health Medical Center	C	Y	Link	Link
Halifax Health UF Medical Center of Deltona Hospital	C	Y	Link	Link
HCA Florida Bayonet Point Hospital	C	Y	Link	Link
HCA Florida Citrus Hospital	C	Y	Link	Link
HCA Florida Fawcett Hospital	C	Y	Link	Link
HCA Florida JFK Hospital	C	Y	Link	Link
HCA Florida JFK North Hospital, A part of HCA Florida JFK Hospital	C	Y	Link	Link
HCA Florida Lake Monroe Hospital	C	Y	Link	Link
HCA Florida Largo Hospital	C	Y	Link	Link
HCA Florida Memorial Hospital	C	Y	Link	Link
HCA Florida Mercy Hospital	C	Y	Link	Link
HCA Florida Northside Hospital	C	Y	Link	Link
HCA Florida Northwest Hospital	C	Y	Link	Link
HCA Florida Palms West Hospital	C	Y	Link	Link
HCA Florida Poinciana Hospital	C	Y	Link	Link
HCA Florida Putnam Hospital	C	Y	Link	Link
HCA Florida West Marion Hospital	C	Y	Link	Link
Jackson Hospital	C	Y	Link	Link
Jackson Memorial Hospital	C	Y	Link	Link
Jackson North Medical Center	C	Y	Link	Link
Jackson South Medical Center	C	Y	Link	Link
Kerality Hospital Miami	C	N	Link	Link
Lakeland Regional Medical Center	C	Y	Link	Link
Manatee Memorial Hospital	C	Y	Link	Link
Memorial Hospital West	C	Y	Link	Link
Memorial Regional Hospital South	C	Y	Link	Link
Mount Sinai Medical Center	C	Y	Link	Link
NCH Baker Hospital	C	Y	Link	Link
North Okaloosa Medical Center	C	Y	Link	Link
North Shore Medical Center	C	Y	Link	Link
Palmetto General Hospital	C	Y	Link	Link
Parrish Medical Center	C	Y	Link	Link
Physicians Regional Healthcare System - Collier Boulevard	C	Y	Link	Link
Physicians Regional Healthcare System - Pine Ridge	C	Y	Link	Link
Santa Rosa Medical Center	C	Y	Link	Link
Tampa General Hospital	C	Y	Link	Link
Tampa General Hospital Brooksville	C	Y	Link	Link
Tampa General Hospital Crystal River	C	Y	Link	Link
Tampa General Hospital Spring Hill	C	Y	Link	Link
Wellington Regional Medical Center	C	Y	Link	Link
Good Samaritan Medical Center	D	N	Link	Link
Halifax Health Medical Center - Port Orange	D	Y	Link	Link
HCA Florida Ocala Hospital	D	Y	Link	Link
St. Mary's Medical Center	D	N	Link	Link
Delray Medical Center	F	N	Link	Link
Palm Beach Gardens Medical Center	F	N	Link	Link
West Boca Medical Center	F	N	Link	Link

Workpaper 4

Share of A- and B-graded TLG hospitals in
Florida known to have CMS rating of 3 or
lower: 50.39%

National average CMS star rating among
hospitals that receive a rating: 3.14

Hospital name	Spring 2025 TLG grade	CMS Star Rating	TLG grade source	CMS Star Rating source
AdventHealth Altamonte Springs	A	Hospital not identified in CMS	Link	
AdventHealth Carrollwood	A	4	Link	Link
AdventHealth Celebration	A	Hospital not identified in CMS	Link	
AdventHealth DeLand	A	4	Link	CMS National Hospital Data
AdventHealth East Orlando	A	Hospital not identified in CMS	Link	
AdventHealth Fish Memorial	A	4	Link	CMS National Hospital Data
AdventHealth Ocala	A	3	Link	CMS National Hospital Data
AdventHealth Orlando	A	3	Link	CMS National Hospital Data
AdventHealth Wesley Chapel	A	4	Link	CMS National Hospital Data
AdventHealth Winter Park	A	Hospital not identified in CMS	Link	
Ascension Sacred Heart Pensacola	A	4	Link	Link
Baptist Health Homestead Hospital	A	4	Link	Link
Baptist Medical Center Beaches	A	4	Link	Link
Baptist Medical Center Nassau	A	4	Link	Link
Cape Coral Hospital	A	4	Link	CMS National Hospital Data
HCA Florida North Florida Hospital	A	2	Link	CMS National Hospital Data
HCA Florida Sarasota Doctors Hospital	A	4	Link	CMS National Hospital Data
HCA Florida St. Lucie Hospital	A	1	Link	Link
HCA Florida Westside Hospital	A	3	Link	Link
Healthpark Medical Center	A	Hospital not identified in CMS	Link	
Jupiter Medical Center	A	4	Link	CMS National Hospital Data
Larkin Community Hospital	A	Not available	Link	CMS National Hospital Data
Lee Memorial Hospital	A	5	Link	CMS National Hospital Data
Mayo Clinic-Jacksonville	A	5	Link	Link
Mease Countryside Hospital	A	5	Link	CMS National Hospital Data
Mease Dunedin Hospital	A	5	Link	CMS National Hospital Data
Morton Plant Hospital	A	4	Link	CMS National Hospital Data
Morton Plant North Bay Hospital	A	3	Link	CMS National Hospital Data
Orlando Health South Lake Hospital	A	3	Link	CMS National Hospital Data
Oviedo Medical Center	A	4	Link	CMS National Hospital Data
Sarasota Memorial Hospital	A	5	Link	CMS National Hospital Data
St. Anthony's Hospital	A	4	Link	Link
St. Joseph's Hospital	A	4	Link	Link
St. Joseph's Hospital - North	A	Hospital not identified in CMS	Link	
St. Joseph's Hospital - South	A	Hospital not identified in CMS	Link	
UF Health Shands Hospital	A	4	Link	CMS National Hospital Data
AdventHealth Apopka	A	Hospital not identified in CMS	Link	
AdventHealth Dade City	A	4	Link	CMS National Hospital Data
AdventHealth Kissimmee	A	Hospital not identified in CMS	Link	
AdventHealth Lake Wales	A	1	Link	CMS National Hospital Data
AdventHealth New Smyrna Beach	A	3	Link	CMS National Hospital Data
AdventHealth North Pinellas	A	3	Link	CMS National Hospital Data
AdventHealth Winter Garden	A	Hospital not identified in CMS	Link	
AdventHealth Zephyrhills	A	Hospital not identified in CMS	Link	
Baptist Health Hospital Doral	A	Hospital not identified in CMS	Link	
Baptist Health South Miami Hospital	A	5	Link	Link
Baptist Health West Kendall Baptist Hospital	A	5	Link	Link
Baptist Medical Center Clay	A	Hospital not identified in CMS	Link	
Bartow Regional Medical Center	A	3	Link	CMS National Hospital Data
Broward Health Coral Springs	A	2	Link	CMS National Hospital Data
Broward Health North	A	2	Link	CMS National Hospital Data
Coral Gables Hospital	A	3	Link	Link
HCA Florida Highlands Hospital	A	1	Link	CMS National Hospital Data
HCA Florida Kendall Hospital	A	2	Link	CMS National Hospital Data
HCA Florida Raulerson Hospital	A	3	Link	Link
HCA Florida South Tampa Hospital	A	3	Link	CMS National Hospital Data
HCA Florida Trinity Hospital	A	3	Link	CMS National Hospital Data
Hialeah Hospital	A	1	Link	Link
Holmes Regional Medical Center	A	3	Link	CMS National Hospital Data
Lakewood Ranch Medical Center	A	3	Link	CMS National Hospital Data
Larkin Community Hospital - Palm Springs Campus	A	3	Link	Link
Memorial Hospital Miramar	A	4	Link	CMS National Hospital Data
Memorial Hospital Pembroke	A	2	Link	CMS National Hospital Data
Orlando Health Bayfront Hospital	A	1	Link	CMS National Hospital Data
Orlando Health Horizon West Hospital	A	Hospital not identified in CMS	Link	
Orlando Health Melbourne Hospital	A	2	Link	Link
Sarasota Memorial Hospital - Venice	A	4	Link	CMS National Hospital Data

Hospital name	Spring 2025 TLG grade	CMS Star Rating	TLG grade source	CMS Star Rating source
St. Vincent's Medical Center Clay County	A	3	Link	Link
St. Vincent's Medical Center Southside	A	4	Link	Link
Winter Haven Hospital	A	2	Link	CMS National Hospital Data
AdventHealth Daytona Beach	B	5	Link	CMS National Hospital Data
AdventHealth Heart of Florida	B	1	Link	CMS National Hospital Data
AdventHealth Palm Coast	B	3	Link	Link
AdventHealth Sebring	B	3	Link	CMS National Hospital Data
AdventHealth Waterman	B	4	Link	CMS National Hospital Data
Ascension St. Vincent's Riverside	B	2	Link	Link
Baptist Health Baptist Hospital of Miami	B	4	Link	Link
Baptist Health Boca Raton Regional Hospital	B	2	Link	Link
Baptist Health Doctors Hospital	B	5	Link	Link
Baptist Medical Center Jacksonville	B	4	Link	Link
Baptist Medical Center South	B	Hospital not identified in CMS	Link	
Cape Canaveral Hospital	B	4	Link	CMS National Hospital Data
Cleveland Clinic Hospital Weston	B	3	Link	Link
Cleveland Clinic Indian River Hospital	B	4	Link	CMS National Hospital Data
Gulf Coast Medical Center	B	4	Link	Link
HCA Florida Aventura Hospital	B	2	Link	CMS National Hospital Data
HCA Florida Blake Hospital	B	1	Link	CMS National Hospital Data
HCA Florida Brandon Hospital	B	3	Link	CMS National Hospital Data
HCA Florida Capital Hospital	B	1	Link	CMS National Hospital Data
HCA Florida Englewood Hospital	B	3	Link	CMS National Hospital Data
HCA Florida Fort Walton-Destin Hospital	B	3	Link	CMS National Hospital Data
HCA Florida Gulf Coast Hospital	B	3	Link	CMS National Hospital Data
HCA Florida Lake City Hospital	B	3	Link	CMS National Hospital Data
HCA Florida Lawnwood Hospital	B	1	Link	CMS National Hospital Data
HCA Florida Oak Hill Hospital	B	3	Link	CMS National Hospital Data
HCA Florida Orange Park Hospital	B	2	Link	CMS National Hospital Data
HCA Florida Osceola Hospital	B	2	Link	CMS National Hospital Data
HCA Florida Pasadena Hospital	B	3	Link	CMS National Hospital Data
HCA Florida South Shore Hospital	B	2	Link	CMS National Hospital Data
HCA Florida St. Petersburg Hospital	B	2	Link	Link
HCA Florida Twin Cities Hospital	B	4	Link	CMS National Hospital Data
HCA Florida University Hospital	B	3	Link	CMS National Hospital Data
HCA Florida West Hospital	B	2	Link	CMS National Hospital Data
HCA Florida Woodmont Hospital	B	1	Link	Link
Holy Cross Hospital	B	3	Link	CMS National Hospital Data
Jackson West Medical Center	B	Hospital not identified in CMS	Link	
Lehigh Regional Medical Center	B	3	Link	CMS National Hospital Data
Lower Keys Medical Center	B	3	Link	CMS National Hospital Data
Memorial Regional Hospital	B	3	Link	CMS National Hospital Data
Naval Hospital Jacksonville	B	Not available	Link	Link
NCH North Naples Hospital	B	Hospital not identified in CMS	Link	
Orlando Health Dr. P. Phillips Hospital	B	Hospital not identified in CMS	Link	
Orlando Health Lake Mary Hospital	B	Hospital not identified in CMS	Link	
Orlando Health Sebastian River Hospital	B	3	Link	Link
Orlando Health St. Cloud Hospital	B	2	Link	Link
Orlando Health - Health Central Hospital	B	2	Link	Link
Orlando Health - Orlando Regional Medical Center	B	2	Link	Link
Palm Bay Hospital	B	4	Link	CMS National Hospital Data
Sacred Heart Hospital On The Emerald Coast	B	5	Link	CMS National Hospital Data
South Florida Baptist Hospital	B	4	Link	CMS National Hospital Data
Tallahassee Memorial Healthcare	B	2	Link	CMS National Hospital Data
UCF Lake Nona Medical Center	B	Not available	Link	Link
UF Health Jacksonville	B	3	Link	Link
UF Health Leesburg Hospital	B	2	Link	CMS National Hospital Data
UF Health North	B	Hospital not identified in CMS	Link	
UF Health-Spanish Plains	B	1	Link	Link
Viera Hospital	B	5	Link	CMS National Hospital Data

Workpaper 5

Hospital	TLG Spring 2025		Mean Value for Process/Structural Measures	
	Score	Grade	Score	Grade
Delray	1.6430	F	2.4315	C
Good Samaritan	1.9638	D	2.6810	C
PB Gardens	1.7777	F	2.5057	C
St. Mary's	2.2512	D	2.9341	C
West Boca	1.8346	F	2.5670	C

Appendix E

shorthand	hospital_name	tlg_normalized_score	tlg_grade	rescore_normalized_score	rescore_grade
PB Gardens	Palm Beach Gardens Medical Center	1.777689803	F	2.505705798	C
Delray	Delray Medical Center	1.642991426	F	2.431467843	C
West Boca	West Boca Medical Center	1.834637393	F	2.567038646	C
Good Samaritan	Good Samaritan Medical Center	1.963833267	D	2.681023703	C
St. Mary's	St. Mary's Medical Center	2.251168586	D	2.934125334	C

Workpaper 6

TLG Results	P Value	Test Statistic	Share Participating A or B	Share Participating C or Lower	Difference	Conf Int Lower	Conf Int Upper	Method	Significant
Fall 2024	3.73E-180	817.7523	0.9767	0.5250	0.4517	0.4266	1	2-sample test for equality of proportions with continuity correction	Yes
Spring 2025	1.69E-181	823.9372	0.9837	0.5402	0.4435	0.4189	1	2-sample test for equality of proportions with continuity correction	Yes

Workpaper 7

Period	TLG Share C or Below	Rescore Share A or B
Spring 2025	0.95608	0.71115
Fall 2024	0.93994	0.75974

Workpaper 8

Measure	B - C: difference				C - D/F: difference				Measure Name
	of means	B - C: t statistic	B - C: p value	B - C: reject hypothesis	of means	C - D/F: t statistic	C - D/F: p value	C - D/F: reject hypothesis	
PSI_04_score	-6.3215	-4.3830	0.0000	Y	-4.2111	-1.9146	0.0567	N	Death among patients with serious treatable complications after surgery
PSI_90_score	-0.0647	-8.3912	0.0000	Y	-0.1564	-6.9438	0.0000	Y	Serious complications (this is a composite or summary measure)
HAI_1_SIR	-0.0980	-3.1145	0.0019	Y	-0.1304	-2.2863	0.0230	Y	Central line-associated bloodstream infections (CLABSI) in ICUs and select wards
HAI_2_SIR	-0.0475	-1.7252	0.0847	N	-0.1397	-2.7245	0.0068	Y	Catheter-associated urinary tract infections (CAUTI) in ICUs and select wards
HAI_3_SIR	-0.0500	-1.1892	0.2346	N	-0.1228	-1.7033	0.0899	N	Surgical Site Infection from colon surgery (SSI: Colon)
HAI_5_SIR	-0.0312	-0.9020	0.3672	N	-0.1542	-2.2715	0.0241	Y	blood laboratory-identified events (bloodstream infections)
HAI_6_SIR	-0.0785	-4.7539	0.0000	Y	-0.1524	-4.5552	0.0000	Y	Clostridium difficile (C.diff) laboratory identified events (intestinal infections)
foreign_object	-0.0022	-0.3535	0.7238	N	-0.0031	-0.5198	0.6036	N	Foreign Object Retained
air_embolism	-0.0008	-1.4082	0.1593	N	0.0006	0.7948	0.4271	N	Air Embolism
falls_and_trauma	-0.0746	-3.2612	0.0011	Y	-0.1015	-2.6609	0.0081	Y	Falls and Trauma

EXHIBIT B

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF FLORIDA
WEST PALM BEACH DIVISION

GOOD SAMARITAN MEDICAL)
CENTER, INC., ET AL) Case No.:
Plaintiffs) 9:25-cv-80526-DMM
Vs.)
THE LEAPFROG GROUP)
Defendant)

Deposition of ANTHONY HARRIS, M.D., MPH,
was taken on Monday, September 29, 2025, commencing
at 10:12 a.m., at Wilson, Elser, Moskowitz, Edelman
& Dicker, 250 West Pratt Street, Suite 2200,
Baltimore, Maryland, before MICHELE D. LAMBIE,
Notary Public.

Reported By:

Michele D. Lambie, CSR-RPR

1 MS. BLAIR: Objection to form, asked and
2 answered.

3 THE WITNESS: Well, did I -- yes, I would
4 say I did do data analysis, because I did the data
5 analysis in section X. Section X supports the
6 arguments made in section IX.

7 BY MR. HVIDT:

8 Q. Section X references only the CMS data
9 measures. It does not reference any imputed
10 measures; is that correct?

11 A. No. Section X -- section X, Exhibit --
12 okay. Section -- no, you're correct.

13 Section XI deals with the imputed
14 measures and is a data analysis to support section
15 IX.

16 Q. We'll get to section XI, but --

17 A. But -- but section X --

18 Q. Doctor, there's no pending question.
19 There's no pending question.

20 A. Okay.

21 MR HVIDT: I'm going to mark what's been

1 produced in this litigation as Exhibit 11.

2 (Whereupon, Harris Deposition Exhibit No.
3 11, Non-Participants in TLG's Survey Would Likely
4 Score Substantively Higher than the Limited
5 Achievement TLG Assumes, marked for
6 identification.)

7 BY MR. HVIDT:

8 Q. Exhibit 11 is a document, a demonstrative
9 that was prepared using the Leapfrog hospital
10 safety grade data that Leapfrog produced in this
11 litigation.

12 MS. BLAIR: For the record, who prepared
13 this?

14 MR HVIDT: For the record, we did.

15 MS. BLAIR: The lawyers in the case?

16 MR HVIDT: For the record, the --
17 the -- Dr. Nicholson, and The Cornerstone Group
18 facilitated in the preparation of this document
19 using the data that was produced in this
20 litigation.

21 MS. BLAIR: Is Dr. Nicholson

1 supplementing his opinion with this document?

2 MR HVIDT: He has not supplemented his
3 opinion in an official capacity in this document.
4 We are producing this as it relates to a
5 demonstrative for the ease of discussion over
6 the -- with Dr. Harris in preparing for his
7 deposition to respond to --

8 MS. BLAIR: Well, I object to the use of
9 this only to the extent that Dr. Harris obviously
10 has not seen this and you're going to ask him to
11 opine on numbers that he's not seen and a document
12 that has no ability to show how it was -- how these
13 numbers or lines or whatever this is came to be
14 resulted in, but to the extent Dr. Harris can read
15 this, he'll discuss it. But I'm objecting to the
16 use of it going forward.

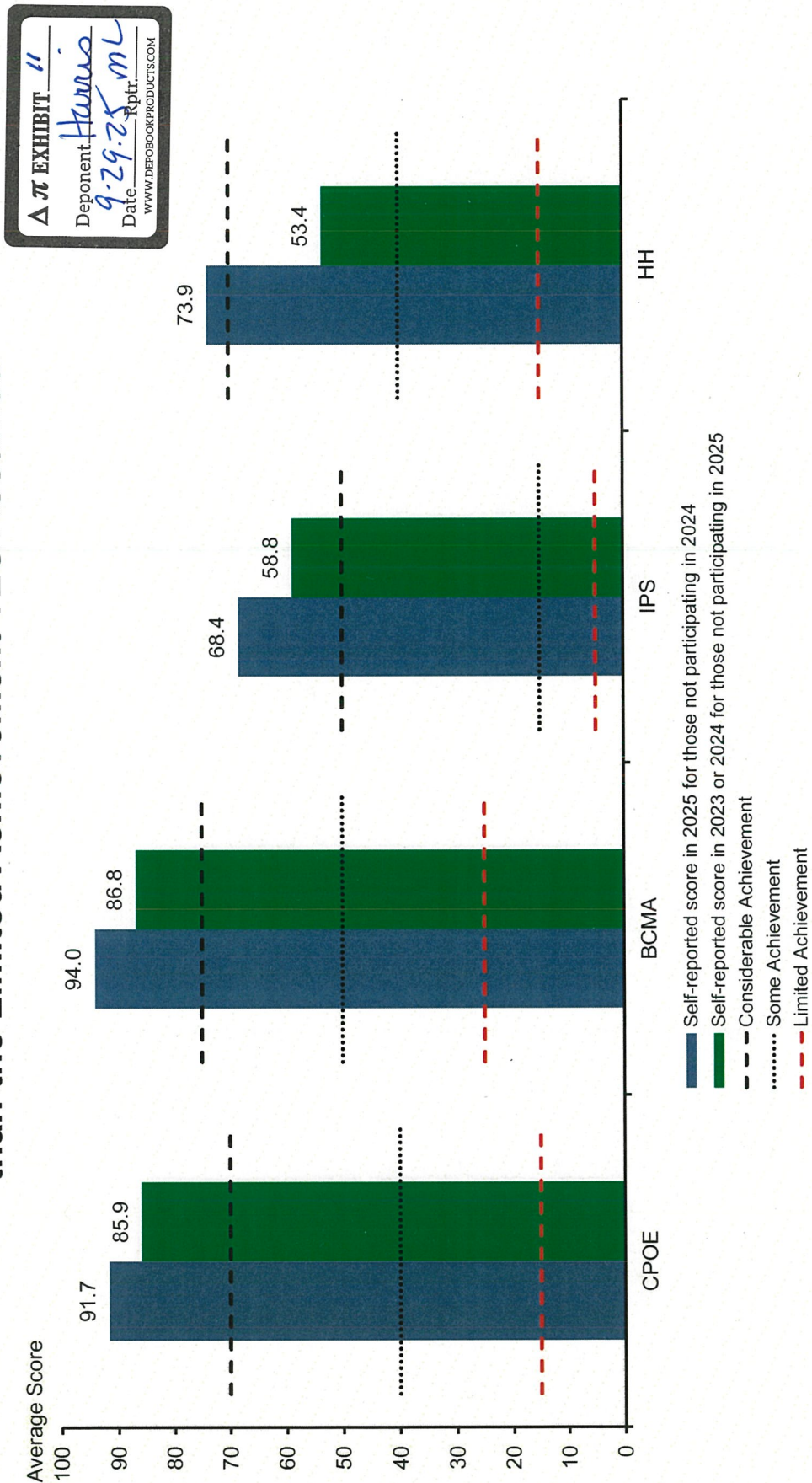
17 MR HVIDT: Okay.

18 BY MR HVIDT:

19 Q. Dr. Harris, if you look to the red dotted
20 lines on this -- on each of the four columns, do
21 you see that that red dotted line lines up with the

EXHIBIT C

Non-Participants in TLG's Survey Would Likely Score Substantively Higher than the Limited Achievement TLG Assumes



Source: TLG Hospital Safety Grade Data; Spring 2025 TLG Scoring Methodology

Note: This chart shows the four self-reported process/structural measures for which TLG assigns "Limited Achievement" to non-participating hospitals (computerized Physician Order Entry (CPOE), Bar Code Medication Administration (BCMA), ICU Physician Staffing (IPS), and Hand Hygiene (HH)). The blue bars show the average self-reported score in 2025 for hospitals that did not participate in the survey in 2024 but did participate in 2025 (315 hospitals). The green bars show the last self-reported score for hospitals that did not participate in TLG's survey in 2025 but participated in either 2023 or 2024 (141 hospitals).

EXHIBIT "A"
Deponent: Harris
Date: 9-29-25 mC
WWW.DEFOBOOKPRODUCTS.COM

EXHIBIT D

Good Samaritan Medical Center, Inc., et. al v. The Leapfrog Group

No. 9:25-cv-80526

United States District Court for the Southern District of Florida - West Palm Beach Division

Deposition of Dr. Anthony Harris

September 29, 2025

Changes and Signature

Page	Line	Original	Change	Reason
228	16-20	For the record, the --the -- Dr. Nicholson, and The Cornerstone Group facilitated in the preparation of this document using the data that was produced in this litigation.	The Cornerstone Group facilitated in the preparation of this document using the data that was produced in this litigation.	Clarification

Subject to the above, I certify that the transcript is true and correct.

/s/ Scott K. Hvidt
Signature

10/31/2025
Date