Dependence and Markets: An Examination of Discretion Among Healthcare Professionals in The US and England

by

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Dedication

Dedicated to myself—for perseverance through hardship, the courage to continue, and the discipline to finish.

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Abstract

This dissertation asks: why does the level and form of discretion exercised by medical professionals vary across institutional contexts? Although discretionary judgment is unavoidable in medicine, existing scholarship largely treats variation in discretion as a function of individual expertise, clinical uncertainty, or implementation gaps. This dissertation advances a different claim: discretion exercised by medical professionals is an institutional outcome produced through governance design. The central argument is that early institutional choices establish durable baselines for allocating authority between the state, organizations, and medical professionals, and that subsequent reforms tend to layer onto these baselines, governing and redistributing discretion rather than eliminating it. Political–economic coordination regimes further condition how medical judgment is authorized, bounded, and rendered legitimate. As a result, variation in medical discretion reflects institutional development and governance structure rather than differences in clinical capacity alone.

The argument is advanced through a historically grounded comparative analysis of emergency medical services in the United States and England from the mid-twentieth century through 2023, using archival process tracing at both national and organizational levels. Focusing on Emergency Medical Technicians as frontline medical professionals operating under high uncertainty and dense public accountability, the study shows that discretion in both systems is actively authorized as a functional necessity but governed through distinct institutional logics. In the United States, fragmented governance and market coordination produce uneven and

conditional discretion mediated by organizational competition and local historical pathways. In England, centralized governance produces a stable configuration in which discretion is decentralized in execution but centralized in authorization and evaluation. Across both cases, medical discretion is constrained less through formal prohibition than through justificatory requirements that define what counts as legitimate clinical judgment. By centering medical professionals and demonstrating that their discretionary authority is systematically produced through institutional design, the dissertation advances theories of governance, professional authority, and medical decision-making and provides a framework for analyzing how states manage medical expertise under conditions of risk, uncertainty, and public accountability.

Chapter 1 Introduction

Across contemporary healthcare systems, professional discretion is unavoidable. Medical decision-making routinely unfolds under conditions of uncertainty, time pressure, and incomplete information, circumstances in which formal rules cannot fully specify appropriate action. Under such conditions, professionals must interpret, prioritize, and apply guidance in practice rather than merely execute predefined procedures. Discretion, understood as judgment exercised within formally authorized limits, thus constitutes a structural feature of governance rather than a departure from it (Evans, 2003; Pratt & Sossin, 2009; Wallander & Molander, 2014).

Despite this shared functional reliance on professional judgment, the institutional configuration of discretion afforded to medical professionals varies systematically across states. Medical professionals operating under broadly comparable clinical demands, professional training standards, and ethical expectations encounter markedly different allocations and constraints on their judgment depending on the governance context in which they practice. In some states, professional interpretation is institutionally recognized as necessary to effective care delivery and embedded within arrangements that authorize discretionary judgment. In others, discretion is tightly structured through dense protocols, hierarchical oversight, and performance regimes that substantially narrow the range of permissible action (Evans, 2003; Brock et al., 2014). These differences are durable and patterned, persisting across reform cycles, shifts in political leadership, and repeated efforts to standardize practice.

The significance of this variation lies in the role discretion plays as a form of institutional power. Discretion structures who is authorized to decide, under what conditions, and with what

degree of accountability. Differences in how discretionary authority is configured shape how policy is translated into practice, influencing consistency, responsiveness, and equity in service delivery (Lipsky, 1980; Maynard-Moody & Musheno, 2003). More expansive configurations of discretion may permit adaptation to situational complexity while increasing exposure to responsibility and blame. More tightly bounded configurations may enhance uniformity and auditability while limiting responsiveness to contextual demands. In both cases, the allocation of discretion reflects political and normative judgments about the appropriate balance between professional authority, standardization, and control.

Clarifying the nature of discretion requires rejecting its conflation with informality, noncompliance, or the absence of rules. Discretion operates within structured institutional environments and is authorized—explicitly or implicitly—by governance arrangements that allocate interpretive authority across actors and organizational levels (Pratt & Sossin, 2009; Wallander & Molander, 2014). Existing literatures, however, tend to treat discretion as an individual-level phenomenon or as an unavoidable functional response to frontline complexity, offering limited leverage for explaining why discretion is institutionalized differently across states (Evans, 2003). This unresolved problem motivates the central research question guiding this dissertation: *Why does the level of discretion afforded to medical professionals vary across states*? Addressing this question requires treating discretion as an institutional outcome shaped by governance arrangements over time, rather than as a property of individual professionals or isolated policy choices.

1.1. Limitations of Existing Explanations

Existing scholarship on professional discretion offers a robust account of why discretionary judgment persists in governance systems. Across political science, public

administration, and socio-legal scholarship, discretion is commonly explained as a response to uncertainty, indeterminacy, and the limits of rule-based control (Lipsky, 1980; Mashaw, 1983; Evans, 2003; Pratt & Sossin, 2009; Wallander & Molander, 2014). These explanations have been effective in establishing that discretion is not an administrative failure but a structurally necessary feature of governance. Yet because discretion is treated as functionally unavoidable, it is rarely theorized as a variable institutional outcome whose distribution across states requires explanation.

This limitation reflects a misalignment between the level at which discretion is theorized and the level at which variation occurs. Dominant accounts locate discretion at the point of implementation, explaining its presence through task complexity, uncertainty, and resource constraint (Lipsky, 1980; Maynard-Moody & Musheno, 2003). While this logic accounts for why discretion emerges under non-ideal policy conditions, it cannot explain why discretion is authorized more broadly in some state systems and more narrowly in others facing similar clinical demands and professional standards. When discretion is treated as endogenous to frontline work, cross-state differences can only be attributed to variation in task environments or administrative capacity—assumptions that are implausible where professional training, ethical norms, and clinical uncertainty are broadly comparable (Evans, 2003).

Institutional and socio-legal accounts move beyond frontline behavior by conceptualizing discretion as authorized judgment embedded in legal and organizational arrangements (Mashaw, 1983; Evans, 2003; Pratt & Sossin, 2009). These accounts rightly emphasize delegation and oversight, but remain analytically limited by their largely synchronic orientation. Institutional structures are treated as explanatory contexts rather than as outcomes of political and historical processes. As a result, such accounts can explain how discretion operates within a system

without explaining why particular patterns of authorization and constraint emerge and persist across systems.

This limitation is especially apparent in organizational and managerial accounts. Research on performance management and audit demonstrates that standardization redistributes discretion across organizational levels rather than eliminating it (Evans, 2003; Brock et al., 2014). While this insight clarifies how discretion changes form, it treats the balance between professional and managerial authority as contingent on contemporary governance strategies. What remains unexplained is why some state systems consistently privilege professional judgment as the primary locus of decision-making authority, while others embed that authority in hierarchical or procedural controls. Organizational accounts describe redistribution but do not explain the baseline allocation of authority that makes particular redistributions possible or legitimate.

The sociology of professions addresses part of this gap by emphasizing that discretion depends on institutional authorization rather than expertise alone (Anker & Lurie, 2022; Noordegraaf, 2020; Saks, 2021). By distinguishing epistemic from decision-making authority, this literature shows how professional discretion may be narrowed or rendered conditional under accountability regimes (Evans, 2020; Noordegraaf, 2020). However, professional authority is typically analyzed as responsive to present governance pressures, leaving under-theorized the processes through which authority settlements become institutionalized and resistant to change over time.

Taken together, existing explanations converge on a shared analytical pattern: discretion is treated as something to be managed, constrained, or redistributed within governance systems, but not as a historically constituted allocation of authoritative decision-making power that varies

systematically across states. Although the literature provides strong accounts of how discretion operates and why it persists, it offers limited leverage for explaining why similarly situated state systems consistently authorize professional judgment to different degrees, particularly under comparable clinical uncertainty and reform pressures (Evans, 2003; Pratt & Sossin, 2009). The limitation, therefore, is not empirical coverage but explanatory capacity—specifically, the absence of an account of institutional development capable of explaining durable cross-state variation in discretionary authority.

1.2. Theoretical Framework and Core Argument

This dissertation advances a theoretical framework that explains variation in professional discretion as an institutional outcome shaped by governance arrangements over time. Discretion is conceptualized not as informal latitude or rule evasion, but as institutionally authorized decision-making power embedded within legal, organizational, and regulatory arrangements (Evans, 2003; Mashaw, 1983; Pratt & Sossin, 2009). The analytical task is therefore not to demonstrate that discretion exists—a point well established in the literature—but to explain how authority to exercise professional judgment becomes differentially allocated, bounded, and stabilized across state systems confronting similar functional demands.

The framework centers path dependency as the primary causal logic explaining the durability and patterning of discretionary authority. Early governance choices establish baseline allocations of decision-making authority between the state, organizations, and professionals, shaping the range of reform trajectories that remain feasible over time (Mahoney, 2000; Pierson, 2000; Pierson, 2004). Initial settlements regarding professional roles, oversight arrangements, and accountability structures generate self-reinforcing dynamics as legal frameworks, organizational routines, and normative expectations develop around them (Arthur, 1994; Pierson,

2004). These dynamics increase the political and administrative costs of reallocation, biasing institutional change toward continuity even in the presence of shared policy pressures.

From this perspective, discretion is not merely exercised within institutions; it is produced through institutional development. Where professional judgment is formally recognized as a legitimate basis for consequential decision-making, subsequent reforms tend to operate within that authorization, reshaping how discretion is governed rather than whether it exists at all (Evans, 2003; Pratt & Sossin, 2009). Where early arrangements embed authority in hierarchical or procedural controls, professional discretion is more likely to remain conditional and tightly bounded. These patterns persist because inherited authority relations structure what forms of reform are politically viable and administratively intelligible (Mahoney, 2000; Pierson, 2004).

While path dependency explains why discretionary authority is unevenly distributed and resistant to change, it does not by itself specify how discretion is governed in practice. To address this limitation, the framework incorporates insights from comparative political economy, particularly the Varieties of Capitalism perspective. Varieties-of-capitalism scholarship emphasizes that states coordinate economic and social activity through distinct institutional arrangements that shape authority relations, accountability structures, and modes of control across sectors (Hall & Gingerich, 2009; Hall & Soskice, 2001). Within public service provision, these arrangements influence how professional labor is organized, evaluated, and overseen, conditioning the role that professional judgment plays within governance systems.

Importantly, the varieties-of-capitalism perspective is not treated here as a theory of market competition, but as a framework for understanding system-level coordination and institutional complementarity. VoC helps specify how different institutional environments

structure the relationship between professional authority, organizational oversight, and state control, and why governance reforms may have divergent implications for discretion across otherwise comparable systems. These effects are mediated by path-dependent authority baselines rather than operating independently of them (Hall & Gingerich, 2009; Pierson, 2004).

The core argument advanced in this dissertation is that variation in professional discretion reflects the interaction between path-dependent institutional development and system-level coordination arrangements captured by comparative political economy, rather than differences in professional capacity, organizational efficiency, or policy intent alone. Institutional trajectories establish durable authority baselines, while broader coordination regimes condition how that authority is exercised, monitored, and justified over time. Explaining professional discretion therefore requires analyzing how these processes jointly shape the authorization and governance of professional judgment across state systems.

1.3. Hypotheses and Causal Expectations

The analytical framework developed in this dissertation yields a set of mechanism-oriented hypotheses concerning how professional discretion is allocated across states. These hypotheses do not predict individual behavior; instead, they specify how institutional arrangements structure the authorization, scope, and durability of discretionary judgment. Discretion is treated as an outcome of governance design, shaped by historical development and conditioned by market organization rather than as a direct function of professional expertise or contemporaneous policy choice (Evans, 2003; Mashaw, 1983; Pratt & Sossin, 2009; Wallander & Molander, 2014).

The first hypothesis concerns the role of institutional development over time. Historical institutionalist scholarship emphasizes that early governance choices generate durable

trajectories through processes of reinforcement, organizational investment, and normative lock-in, producing persistent variation across states even in the face of similar pressures for reform (Mahoney, 2000; Pierson, 2000; Pierson, 2004). Applied to professional discretion, this perspective suggests that states establish baseline configurations of authority that shape how much judgment professionals are authorized to exercise. Hypothesis 1 (H1) posits that states with institutional histories that privilege professional authority will exhibit higher baseline levels of discretion than states whose institutional development emphasizes hierarchical oversight and bureaucratic control. Causal expectations associated with H1 include the persistence of discretionary arrangements across reform cycles and resistance to convergence despite shared policy instruments.

The second hypothesis addresses the role of market governance in structuring discretionary space. Comparative political economy scholarship demonstrates that states organize markets and public service delivery through distinct coordination mechanisms, producing systematic differences in authority, accountability, and control (Hall & Soskice, 2001; Streeck & Thelen, 2005). Market mechanisms such as contracting, competition, and performance incentives reshape organizational priorities and accountability structures, often altering how professional judgment is monitored and evaluated. Hypothesis 2 (H2) posits that greater reliance on market governance is associated with tighter constraints on professional discretion, as performance measurement and contractual accountability narrow the range of authorized judgment. Expected mechanisms include the reclassification of professional decisions as procedural tasks and the displacement of discretion toward managerial or organizational actors (Brock et al., 2014; Evans, 2003).

The third hypothesis concerns the interaction between institutional legacies and market governance. Historical institutionalism suggests that the effects of new governance arrangements are mediated by existing institutional configurations rather than imposed on a blank slate (Mahoney & Thelen, 2010; Thelen, 2003). From this perspective, market mechanisms do not exert uniform effects on professional discretion; instead, their impact depends on how authority was historically allocated and embedded. Hypothesis 3 (H3) posits that institutional legacies condition the effects of market governance on discretion, such that similar market reforms produce divergent outcomes across states. Where institutional histories entrench professional authority, market mechanisms are expected to reshape the form of discretion without eliminating it. Where institutional arrangements prioritize managerial or bureaucratic control, market governance is expected to further compress discretionary space.

Together, these hypotheses specify a causal framework in which cross-state variation in professional discretion arises from the interaction between path-dependent institutional trajectories and market governance structures. The hypotheses generate observable expectations concerning the durability of discretionary arrangements, the differential effects of market reforms, and the patterned redistribution of authority across states. Evaluating these expectations requires a comparative, historically grounded analysis capable of tracing how institutional development and governance mechanisms jointly structure the authorization of professional judgment over time.

1.4. Research Strategy and Comparative Logic

Explaining variation in the level of discretion afforded to medical professionals requires an analytical approach attentive to how governance arrangements develop, stabilize, and operate within state systems over time. This dissertation adopts a historically grounded case study design

focused on the United States and England, treating each as a distinct institutional context in which professional discretion is produced and constrained through specific legal, organizational, and governance arrangements. The analysis does not proceed by comparing the two cases to one another. Instead, each case is examined on its own terms, with the aim of explaining how discretionary authority is structured and sustained within a given state system.

Emergency medical services (EMS) provide the empirical setting through which these institutional dynamics are traced. EMS constitutes a particularly revealing domain for examining discretion because clinical decision-making unfolds under acute time pressure and uncertainty, conditions that make professional judgment unavoidable while simultaneously inviting intensive regulatory oversight. Governance arrangements governing EMS therefore illuminate how states reconcile the necessity of discretionary judgment with competing demands for standardization, accountability, and control. The focus on EMS is analytical rather than substantive: EMS functions as a site through which broader institutional patterns shaping professional authority can be observed within each case.

Within each national context, the analysis traces the historical development of governance arrangements relevant to the organization of EMS, attending to how legal frameworks, organizational structures, and accountability regimes have shaped the authorization and constraint of professional discretion over time. Process tracing is used to reconstruct sequences of institutional development, identify mechanisms through which discretion is enabled, narrowed, or reallocated, and assess how governance reforms interact with existing institutional configurations. Particular attention is paid to moments of institutional consolidation and reform, where discretionary authority is most clearly articulated, contested, or restructured.

Empirical evidence is drawn from policy and regulatory documents, archival materials, and secondary sources, and is evaluated in light of the causal expectations derived from the analytical framework. Within each case, the analysis examines whether observed patterns in discretionary authority align with theorized mechanisms linking institutional development and governance design to the allocation of professional judgment. Presenting the cases as self-contained analytical narratives allows the dissertation to explain variation in discretion without relying on cross-case contrasts or comparative inference.

This approach enables a focused examination of how professional discretion is institutionalized within state systems, while maintaining analytical discipline about the scope of the claims advanced. By privileging within-case process tracing over cross-case comparison, the dissertation offers historically grounded explanations of how discretionary authority is authorized and constrained in practice, reserving broader theoretical implications for synthesis rather than juxtaposition. Detailed discussion of data sources, evidentiary standards, and analytical procedures is presented in the methods chapter that follows.

1.5. Scope Conditions and Boundaries

The scope of this study is intentionally bounded in order to support causal explanation rather than comprehensive coverage. Substantively, the analysis focuses on medical professionals operating within emergency medical services (EMS) as a strategically revealing domain for examining the institutional organization of professional discretion. EMS is selected not because it is representative of all medical practice, but because the conditions under which EMS operates—acute uncertainty, time pressure, and high stakes—render discretion both unavoidable and highly regulated, making the institutional allocation of judgment particularly visible.

Analytically, the study is concerned with state-level governance arrangements rather than individual decision-making or professional performance. The unit of explanation is the institutional configuration through which discretion is authorized, constrained, and sustained over time. As a result, the dissertation does not seek to explain variation in individual behavior, clinical outcomes, or compliance with specific protocols. Nor does it aim to evaluate the normative desirability of particular discretionary arrangements. The focus remains squarely on explaining how discretion is structured as an institutional outcome.

Temporally, the analysis traces the historical development of governance arrangements governing EMS within each case, attending to moments of institutional consolidation, reform, and reconfiguration. The study does not attempt to capture every policy change or organizational adjustment, but instead prioritizes developments that bear directly on the allocation of professional judgment. Claims are therefore bounded to the institutional trajectories examined and do not presume uniformity across other policy domains or professional fields.

These scope conditions are not limitations in the sense of analytic weakness, but deliberate constraints that allow for theoretically informed explanation. By focusing on a specific professional domain within clearly defined state systems, the study advances a precise account of how professional discretion is institutionalized, while laying the groundwork for future research to examine whether similar mechanisms operate in other contexts.

1.6. Contributions of the Study

This dissertation contributes to scholarship on professional discretion by reframing discretion as an outcome of institutional organization rather than as an attribute of individual professionals or a residual feature of policy implementation. Existing accounts acknowledge that discretion is structured by rules, organizations, and oversight mechanisms, yet they offer limited

explanations for why the scope of discretion differs systematically across state systems. By treating discretion as something that is actively produced and sustained through governance arrangements, this study shifts analytical attention away from frontline behavior and toward the institutional conditions under which professional judgment is authorized, constrained, and stabilized over time.

The dissertation further contributes to theoretical debates by demonstrating how variation in discretionary authority can be explained through institutional development rather than functional necessity or professional culture alone. Drawing on historical institutionalist insights, the analysis shows how early governance choices shape baseline configurations of professional authority and condition the effects of subsequent reforms. Discretion emerges not as a uniform response to clinical complexity, but as a patterned outcome of historically contingent arrangements that structure authority and accountability within state systems. This approach provides a more durable explanation for why discretionary arrangements persist despite shared pressures for standardization and reform.

An additional contribution lies in the dissertation's empirical focus on emergency medical services as a site through which institutional dynamics of discretion can be observed with particular clarity. By tracing the development of legal frameworks, organizational structures, and accountability regimes governing EMS within the United States and England, the study offers detailed within-case analyses of how discretionary authority is articulated and reconfigured in high-stakes medical contexts. These cases illuminate the institutional mechanisms through which discretion is made visible, contested, and sustained, enriching empirical understandings of professional authority in settings where judgment is both unavoidable and heavily regulated.

Finally, the dissertation contributes methodologically by demonstrating the value of historically grounded process tracing for the study of professional discretion. Rather than relying on cross-sectional indicators or behavioral proxies, the analysis reconstructs sequences of institutional change to identify the mechanisms through which discretion is allocated and transformed. This approach underscores the importance of institutional analysis for explaining variation in professional authority and provides a model for future research seeking to examine discretion as a governance outcome rather than an individual-level phenomenon.

The contributions of this dissertation establish professional discretion as a systematically structured feature of state governance rather than a contingent or incidental aspect of professional practice. By demonstrating how discretion is produced and stabilized through institutional arrangements over time, the study provides a framework for explaining variation in professional authority that existing accounts leave unresolved. The analysis clarifies how governance design, institutional development, and accountability regimes shape the scope of authorized judgment in practice, offering a historically grounded explanation for why discretion takes the forms it does within state systems. In doing so, the dissertation reorients the study of discretion away from individual decision-making and toward the institutional conditions that govern the exercise of professional authority.

1.7. Chapter Overview

This dissertation is organized into six chapters. Chapter 2 develops the theoretical framework used to explain professional discretion as an institutional outcome. It argues that, despite the prominence of discretion in governance and professional literatures, existing accounts rarely treat discretion as something that varies systematically across state systems or specify the mechanisms through which it is configured. To address this gap, the chapter reconceptualizes

professional discretion as institutionally authorized decision-making power embedded in historically constituted authority arrangements and governed through contemporary political–economic structures. Drawing on path dependency and political economy, Chapter 2 shows how early institutional choices establish durable baselines for professional authority, while market governance conditions how discretion is operationalized, bounded, and reworked over time. This framework provides the theoretical foundation for the hypotheses and empirical analysis that follow.

Chapter 3 outlines the research design and methodological approach. The chapter details the use of historically grounded case study analysis and process tracing to examine how professional discretion is organized within state systems. It describes the evidentiary sources employed in the study, including policy and regulatory documents and archival materials, and explains how institutional sequences and governance reforms are traced within each case. The chapter also clarifies the standards through which causal claims are assessed, linking the methodological choices directly to the analytical framework developed in the preceding chapter.

Chapter 4 presents the United States case. This chapter traces the historical development of governance arrangements shaping professional discretion within emergency medical services, focusing on how legal frameworks, organizational structures, and accountability regimes have structured the authorization and constraint of professional judgment over time. Attention is given to key moments of institutional consolidation and reform, illustrating how discretionary authority has been stabilized, redistributed, or narrowed within the U.S. context. The analysis demonstrates how discretion has been embedded within a particular configuration of governance that continues to shape professional authority in practice.

Chapter 5 examines the England case through a parallel within-case analytical strategy. The chapter reconstructs the development of governance arrangements governing emergency medical services, tracing how institutional design and reform have shaped the scope and location of professional discretion. By following the evolution of legal authority, organizational oversight, and accountability mechanisms, the chapter explains how discretionary judgment has been structured within the English system and how these arrangements have been sustained over time. As with the U.S. case, the analysis emphasizes institutional processes rather than cross-case comparison.

Chapter 6 synthesizes the findings of the study and considers their broader implications. The chapter draws together insights from the two within-case analyses to clarify how institutional development and governance design shape professional discretion within state systems. It discusses the implications of the findings for theories of discretion, governance, and professional authority, and identifies directions for future research that build on the institutional perspective advanced in the dissertation.

Chapter 2 Discretion, Professional Power, and Institutional Contexts

The central empirical puzzle identified in Chapter 1—systematic variation in the level of discretion afforded to medical professionals across states—raises a prior analytical problem: discretion itself must be theorized as an institutional phenomenon capable of varying across otherwise comparable governance contexts (Pierson, 2004; Pratt & Sossin, 2009). Although discretion is pervasive in scholarship on implementation, regulation, and professional authority, it is rarely treated as a dependent variable whose distribution can be explained through specified causal mechanisms rather than assumed as an implementation residue (Lipsky, 1980; Mashaw, 1983; Wallander & Molander, 2014). Instead, discretion is often invoked as the space left open by incomplete rules, professional judgment, or managerial limitation, which tends to under-theorize the institutional conditions under which discretion is authorized, stabilized, and constrained (Evans, 2003; Pratt & Sossin, 2009; Wallander & Molander, 2014). That conceptual under-specification matters because it limits the field's ability to explain patterned cross-state variation, particularly where similar professions operate under different institutional configurations of oversight, authority, and accountability (Evans, 2003; Noordegraaf, 2020; Saks, 2021).

This chapter addresses that limitation by developing a conceptual and theoretical framework that situates professional discretion within historically constituted authority relations and contemporaneous political–economic governance (Pierson, 2004; Hall & Gingerich, 2009). Discretion is conceptualized as a relational form of institutional power embedded in arrangements that allocate decision-making authority between the state, organizations, and

professionals, rather than as an individual-level attribute of expertise alone (Evans, 2003; Mashaw, 1983; Noordegraaf, 2020). The chapter first consolidates and refines how discretion is conceptualized across governance and professional literatures, clarifying how discretionary authority is constituted through legal mandates, organizational structures, and accountability regimes that shape what judgment is permissible in practice (Lipsky, 1980; Mashaw, 1983; Pratt & Sossin, 2009). It then advances an integrated theoretical framework combining path dependency and political economy to explain variation in discretionary power across states (Hall & Gingerich, 2009; Pierson, 2000; Pierson, 2004). Path dependency specifies how early policy decisions establish durable institutional trajectories that shape the scope and legitimacy of professional authority over time through increasing returns, positive feedback, and constrained reform paths (Arthur, 1994; Mahoney, 2000; Pierson, 2000). Political economy specifies how market structures govern professional work through the organization of skill formation, incentives, and oversight, producing systematic differences in how professional judgment is monitored and disciplined (Hall & Gingerich, 2009; Hancké et al., 2007). Their integration yields a conditional account in which market mechanisms operate within historically embedded institutional baselines, and reform is expected to proceed through layering, drift, or conversion rather than uniform displacement of existing authority relations (Cacace & Frisina, 2010;Streeck & Thelen, 2005; Pierson, 2004).

2.1. Conceptualizing Professional Discretion

Across literatures concerned with governance, professional authority, and institutional design, discretion emerges as a central but conceptually unsettled phenomenon, defined less by consensus than by recurring analytical tensions (Evans, 2003; Pratt & Sossin, 2009). Rather than denoting unrestricted freedom, discretion is most consistently understood as judgment exercised

within formally bounded environments, where actors are authorized to choose among permissible alternatives under conditions of uncertainty (Pratt & Sossin, 2009; Wallander & Molander, 2014). This shared emphasis on bounded judgment marks a point of convergence across disciplines, even as explanations diverge regarding the origins and consequences of discretionary authority.

A core insight running through the literature is that discretion is not a residual failure of rules but a structural feature of institutional governance (Evans, 2003; Pratt & Sossin, 2009). Because formal rules cannot exhaustively specify appropriate action across heterogeneous cases, governance systems must delegate interpretive authority to situated actors. Discretion is therefore institutionally produced rather than introduced through deviation, underscoring its embeddedness in legal and administrative design rather than in individual preference (Pratt & Sossin, 2009).

The sociology of professions situates discretion within the social organization of expertise, linking legitimate judgment to specialized training, abstract knowledge, and collective orientation (Flexner, 2001; Goode, 1961; Johnson, 1972). Yet this literature makes clear that expertise alone does not generate discretionary authority. Early trait-based accounts that assumed a direct relationship between professional knowledge and autonomy gave way to power-centered analyses showing that discretion depends on institutional recognition and on the capacity of professions to secure jurisdictional control within organizational and political environments (Goode, 1961; Hughes, 1971; Johnson, 1972). Discretion is thus contingent and negotiated, not inherent to occupational status.

Subsequent work integrates these insights with organizational analysis, emphasizing that discretion is structured through managerial hierarchies, performance regimes, and bureaucratic oversight rather than simply constrained by them (Brock et al., 2014; Evans, 2003).

Organizational controls rarely eliminate judgment; instead, they redistribute it, altering who decides, under what criteria, and with what forms of accountability. Discretion therefore appears as relational—produced at the intersection of professional expertise and organizational authority—rather than as an individualized residue of rule indeterminacy (Evans, 2003).

Political science and public administration reinforce this relational account by situating discretion within enduring tensions between law, bureaucracy, and judgment (Pratt & Sossin, 2009). Discretion has been alternately framed as a threat to consistency and fairness and as a necessary corrective to rigid rule application, particularly in welfare-state institutions where rules confront heterogeneous need. Efforts to constrain discretion through proceduralization and formalization have repeatedly demonstrated that judgment persists through interpretation, prioritization, and selective emphasis rather than overt noncompliance (Evans, 2003; Pratt & Sossin, 2009). The empirical regularity is not the disappearance of discretion but its transformation.

These literatures converge on an understanding of discretion as structured and institutionally mediated judgment, even as they differ in whether professional expertise, organizational control, or legal design is treated as analytically primary (Brock et al., 2014; Evans, 2003; Pratt & Sossin, 2009). Across accounts, discretionary authority carries distributive consequences, shaping access to resources, service quality, and outcomes within public systems, including healthcare (Evans, 2020). Variation in discretion is therefore a question of accountability and institutional design rather than individual competence.

Accordingly, this dissertation defines professional discretion as the institutionally sanctioned authority of medical professionals to make consequential decisions without mandatory ex ante approval or routine ex post override by non-professional actors. This

definition centers authorization and constraint as the primary objects of explanation, analytically separating discretion from expertise, informal influence, or de facto autonomy while preserving the core insight that discretionary judgment is produced within, and structured by, governance arrangements.

2.2. Discretion in Governance and Policy Implementation

Within political science and public administration, discretion is conceptualized as a core feature of governance and policy implementation, reflecting the persistent gap between formal rules and the practical demands of decision-making in complex institutional environments (Evans, 2003; Mashaw, 1983; Pratt & Sossin, 2009). Rather than treating discretion as a residual failure of regulation, this literature positions discretionary judgment as an institutional mechanism through which authority is delegated, policy goals are interpreted, and governance systems function under conditions of uncertainty and constraint (Hawkins, 2002; Lipsky, 1980). Discretion is therefore central to understanding why formal legal or administrative design alone cannot account for variation in implementation outcomes across contexts (Evans, 2003; Pratt & Sossin, 2009).

A defining contribution of this scholarship is its treatment of discretion as structured judgment embedded within legal, organizational, and political arrangements rather than as an idiosyncratic feature of individual behavior (Mashaw, 1983; Wallander & Molander, 2014). Discretionary authority is shown to be produced through institutional design choices that allocate decision-making power across actors and levels, shaping how rules are enacted, priorities are set, and resources are distributed (Evans, 2003; Hawkins, 2002). As a result, discretion is simultaneously enabled and constrained by governance structures that authorize interpretation while seeking to manage its distributive and accountability implications (Pratt & Sossin, 2009).

The literature further distinguishes between multiple sites of discretionary authority within public institutions, particularly between frontline actors who exercise judgment in direct service delivery and organizational or managerial actors who structure implementation through strategic decision-making and oversight (Brock et al., 2014; Evans, 2003). These sites are analytically distinct but interdependent, as managerial discretion shapes the conditions under which frontline judgment is exercised, while frontline practice feeds back into organizational norms and policy interpretation (Evans, 2003; Hawkins, 2002). Accordingly, this section synthesizes political science and public administration scholarship on discretion by examining street-level and organizational dimensions of discretionary authority, situating discretion as a variable and institutionally mediated form of power within governance systems (Evans, 2003; Lipsky, 1980; Pratt & Sossin, 2009).

2.2.1. Street-Level Bureaucracy and Frontline Governance

In political science and public administration, discretion is most rigorously theorized through street-level and frontline governance, where policy is realized through situated judgments made under conditions of ambiguity, constraint, and competing institutional demands (Evans, 2003; Lipsky, 1980; Pratt & Sossin, 2009). Within this tradition, discretion is constitutive of implementation because formal rules cannot exhaustively specify appropriate action across heterogeneous cases; policy meaning therefore crystallizes at the point of interpretation and application (Hawkins, 2002; Lipsky, 1980; Mashaw, 1983). Discretion is thus conceptualized not as an individual attribute but as an institutional property of governance arrangements that delegate authority to actors charged with reconciling rule generality with case specificity (Evans, 2003; Pratt & Sossin, 2009).

The core analytic mechanism linking these accounts is the joint presence of indeterminacy and consequential choice (Lipsky, 1980; Mashaw, 1983; Wallander & Molander, 2014). Indeterminacy arises when rules are incomplete, internally inconsistent, or too general to resolve variation across cases, rendering interpretive labor unavoidable; consequential choice follows because implementers must prioritize among competing obligations and select among permissible courses of action, generating patterned variation rather than random deviation (Lipsky, 1980; Wallander & Molander, 2014). Discretion is therefore embedded in the functional architecture of administration wherever governance relies on delegated judgment to translate abstract mandates into operational outcomes (Evans, 2003; Pratt & Sossin, 2009).

Crucially, discretion is simultaneously enabled and bounded. Legal frameworks establish outer limits of permissible action, organizational hierarchies allocate decision authority and define escalation pathways, and professional norms specify legitimate reasoning and evidentiary standards (Mashaw, 1983; Pratt & Sossin, 2009; Wallander & Molander, 2014). Discretion is therefore best understood as authorized judgment within constraints rather than deviation from the rule-of-law ideal (Pratt & Sossin, 2009). Comparative analyses of the British regulatory state further demonstrate that these constraints increasingly operate through formalized oversight, inspection regimes, and statutory accountability structures that subordinate professional self-regulation to external supervision, reconfiguring discretion as conditional rather than constitutionally insulated (Harrison, 2004a).

A persistent tension in this literature concerns the relationship between discretion and standardization, particularly in welfare-state institutions committed to accountability and equal treatment (Mashaw, 1983; Pratt & Sossin, 2009). Proceduralization, documentation requirements, and performance regimes are designed to reduce arbitrariness; yet formalization

rarely eliminates discretion, instead redistributing it into categorization, prioritization, sequencing, and evidentiary threshold management (Evans, 2003; Lipsky, 1980). The central empirical question thus becomes not whether discretion persists under standardization, but how it is transformed, displaced, or reallocated across actors and decision points as oversight intensifies (Evans, 2003; Pratt & Sossin, 2009). The rise of managerialism in UK public services illustrates this dynamic vividly: the introduction of general management, purchaser–provider splits, and clinical governance did not abolish clinical discretion, but embedded it within performance indicators, budgetary accountability, and executive responsibility for quality, thereby relocating discretionary authority within structured managerial hierarchies (Harrison & Ahmad, 2000; Harrison, 2004a, 2004b).

Discretion is further conceptualized as patterned rather than episodic. Organizational routines, shared interpretive frameworks, and institutional logics stabilize judgment across cases, producing reproducible decision structures even in environments of rule ambiguity (Maynard-Moody & Musheno, 2003; Garrow & Grusky, 2013). Incentive systems and accountability regimes channel judgment by defining salient outcomes, sanctionable errors, and defensible practices, thereby embedding discretion within structured organizational fields rather than isolating it at the individual level (Evans, 2003; Hawkins, 2002). Under conditions of clinical governance, this embedding increasingly takes the form of "soft bureaucracy," in which professionals are required to render judgment visible, measurable, and auditable through standardized guidelines and performance metrics, transforming autonomy into a vehicle of organizational accountability rather than a shield against it (Flynn, 2004).

Resource scarcity and crisis conditions intensify these dynamics by heightening uncertainty and converting implementation into triage (Lavee, 2021; Lipsky, 1980; Peris Cancio

& Monteiro Mustafá, 2024). When demand exceeds capacity, discretion operates through prioritization decisions that allocate time, attention, and resources, producing distributive consequences not explicitly specified in formal policy (Lavee, 2021). Under crisis conditions, discretion becomes multi-level, shaped simultaneously by macro-level regulatory shifts, meso-level organizational adaptation, and micro-level ethical judgment (Peris Cancio & Monteiro Mustafá, 2024). Changes in institutional context can therefore recalibrate the scope and form of permissible judgment without eliminating its necessity. In the British NHS, fiscal pressures and the state's dual imperative to contain expenditure while sustaining legitimacy have driven precisely such recalibration, as managerial and regulatory instruments reframed rationing and quality control as technical and scientific processes rather than overtly political decisions (Harrison & Ahmad, 2000).

Finally, discretionary space may be narrowed through upstream political and institutional controls that constrain agency authority and redefine acceptable outcomes (MacDonald & Franko, 2007; Pratt & Sossin, 2009). Such controls do not remove interpretive work but reconfigure its terrain, shifting discretion into compliance-oriented domains and compressing the range of allowable decisions (Mashaw, 1983). Discretion thus varies systematically across governance contexts, contingent on legal boundaries, organizational design, resource environments, and political oversight (Evans, 2003; MacDonald & Franko, 2007). The shift from corporatist "club government" to the regulatory state in Britain exemplifies this transformation, as professional self-regulation was subordinated within layered inspection, revalidation, and statutory oversight regimes that formalized transparency and public accountability while preserving limited, conditional domains of professional judgment (Harrison, 2004a).

The street-level governance literature conceptualizes discretion as institutionally produced, systematically patterned judgment shaped by rule indeterminacy, organizational mediation, scarcity, crisis, and political control (Evans, 2003; Lipsky, 1980; Pratt & Sossin, 2009). Implementation emerges as the site where formal policy is translated into practical authority and distributive consequence, explaining why discretion persists—and varies—even under regimes of formalization and oversight (Mashaw, 1983; Pratt & Sossin, 2009). The British case demonstrates that managerialism and regulatory state expansion do not extinguish discretion but reorganize it within hybrid governance forms that combine professional expertise, bureaucratic standard-setting, and performance-based oversight, rendering discretion conditional, visible, and organizationally embedded (Flynn, 2004; Harrison, 2004a).

2.2.2. Institutional Constraints on Discretion

In contrast to street-level accounts that locate discretion at the point of direct service delivery, a parallel body of scholarship emphasizes the organizational and managerial architectures through which discretionary authority is structured, redistributed, and operationalized within governance systems (Brock et al., 2014; Evans, 2003; Hawkins, 2002). From this perspective, discretion is not merely an attribute of frontline actors but a property of institutional arrangements that allocate decision-making authority across hierarchical levels, define legitimate forms of judgment, and mediate the translation of formal policy goals into practice (Evans, 2003; Mashaw, 1983). Discretion is therefore produced through organizational design choices that determine where interpretive authority resides and how it is exercised. In the British case, the introduction of general management and the subsequent rise of the regulatory state demonstrate how such design choices reconfigured professional authority by embedding it

within executive hierarchies and statutory oversight structures (Harrison & Ahmad, 2000; Harrison, 2004b).

A central claim in this literature is that managerial structures shape discretion by converting political and legal mandates into operational priorities (Hawkins, 2002; Mashaw, 1983). Managers exercise discretion through agenda-setting, resource allocation, enforcement strategy, performance criteria, and the interpretation of ambiguous goals, thereby structuring the conditions under which frontline discretion occurs (Evans, 2003; Hawkins, 2002). Organizational discretion thus operates upstream of direct service delivery, defining the menu of available choices and influencing which forms of judgment are authorized, constrained, or rendered invisible (Brock et al., 2014). The emergence of managerialism in UK public services—particularly the purchaser–provider split and the consolidation of executive responsibility for quality—illustrates how managerial actors acquired expanded authority to define clinical priorities, financial thresholds, and accountability standards, thereby reshaping the terrain within which frontline professionals exercise judgment (Harrison & Ahmad, 2000).

This scholarship further demonstrates that managerial discretion is embedded within complex accountability regimes that balance political oversight, legal constraint, and organizational performance (Mashaw, 1983; Pratt & Sossin, 2009). Mechanisms such as reporting requirements, audits, and performance measurement systems aim to constrain discretion through transparency and standardization; yet empirical research consistently shows that these mechanisms generate new sites of judgment in goal-setting, indicator selection, data interpretation, and compliance assessment (Evans, 2003; Hawkins, 2002). Discretion is therefore displaced rather than eliminated, migrating from frontline decision points to managerial interpretation and strategic coordination (Brock et al., 2014). In the context of clinical

governance, these accountability instruments have functioned as technologies of "soft bureaucracy," requiring professionals to render practice measurable and auditable, thereby relocating discretion into the interpretation of performance indicators and the management of quality frameworks (Flynn, 2004).

Organizational discretion is also structured by the coexistence of multiple institutional logics—professional, managerial, and political—that supply competing criteria for appropriate action (Garrow & Grusky, 2013). Managers navigate tensions among efficiency, equity, risk management, and professional standards, exercising judgment in reconciling these logics within organizational practice (Hawkins, 2002). This navigation privileges certain forms of reasoning and outcomes, shaping how policy goals are interpreted and operationalized across contexts (Evans, 2003). Harrison's analysis of the transition from corporatist "club government" to a regulatory state underscores how these competing logics became institutionalized through formal oversight bodies, statutory inspection regimes, and revalidation requirements that recalibrated the balance between professional autonomy and public accountability (Harrison, 2004a).

The literature further shows that managerial and performance reforms introduced to constrain professional discretion frequently reconfigure rather than suppress it (Brock et al., 2014; Evans, 2003). Audit culture, performance management, and managerialism centralize and proceduralize discretion by relocating it to actors who determine how rules are implemented, which indicators matter, and how compliance is evaluated (Mashaw, 1983; Pratt & Sossin, 2009). Under managerialism, discretion becomes more concentrated and formalized, altering its distribution across hierarchical levels while preserving its functional necessity within governance systems (Evans, 2003). The British experience demonstrates that managerialism did not eliminate clinical discretion but reorganized it within hybrid governance forms combining

executive authority, performance metrics, and statutory regulation, rendering professional judgment increasingly conditional upon compliance with externally defined standards (Harrison & Ahmad, 2000; Flynn, 2004).

Political oversight conditions these dynamics by delimiting the boundaries within which managerial judgment operates (MacDonald & Franko, 2007; Pratt & Sossin, 2009). Legislative constraints, budgetary controls, and formal review mechanisms define permissible activities and shape agency risk calculus, channeling discretion toward compliance-oriented strategy under conditions of political scrutiny (Mashaw, 1983; MacDonald & Franko, 2007). Such constraints reconfigure rather than remove discretion, influencing how organizations prioritize objectives and manage uncertainty. In Britain's regulatory state, statutory inspection bodies and formalized transparency requirements institutionalized this scrutiny, embedding managerial discretion within layered oversight regimes that redefined acceptable decision-making practices (Harrison, 2004a).

Taken together, the literature on organizational and managerial discretion conceptualizes discretion as distributed, hierarchical, and institutionally mediated rather than confined to frontline practice (Brock et al., 2014; Evans, 2003; Hawkins, 2002). It is exercised through organizational design, managerial interpretation, accountability systems, and political constraint, shaping how policy authority is allocated and enacted across levels of governance (Mashaw, 1983; Pratt & Sossin, 2009). Variation in discretionary power therefore cannot be explained solely by professional norms or individual judgment; it must be analyzed in relation to the organizational and political arrangements that structure decision-making within public institutions. The British trajectory of managerial reform and regulatory expansion underscores this point, illustrating how discretion is reallocated upward and outward through executive

hierarchies, audit infrastructures, and statutory accountability mechanisms rather than extinguished (Harrison, 2004a; Flynn, 2004).

2.2.3. Analytical limits of Governance and Implementation Accounts

Taken together, the governance and policy implementation literature provides a rigorous and internally coherent account of discretion as a structurally generated feature of public authority. By conceptualizing discretion as authorized judgment embedded within legal, organizational, and political arrangements, this body of work explicitly rejects accounts that treat discretion as individual deviation, weak compliance, or administrative failure (Evans, 2003; Mashaw, 1983; Pratt & Sossin, 2009). Instead, discretion is theorized within this tradition as an institutional mechanism through which policy goals are interpreted, priorities are set, and governance systems function under conditions of uncertainty and constraint (Hawkins, 2002; Lipsky, 1980). A central contribution of this literature lies in demonstrating that discretion is patterned and reproducible rather than episodic, persisting under regimes of formalization and oversight as it is displaced and redistributed across decision points and organizational levels (Evans, 2003; Mashaw, 1983; Pratt & Sossin, 2009).

At the same time, the analytical assessment advanced in this dissertation is that the reach of governance- and implementation-centered accounts is limited by their treatment of discretion primarily as a functional response to administrative conditions rather than as an outcome of contested authority relations. Although this literature explains how discretion is generated and structured within existing institutional arrangements, it provides less leverage for explaining why particular actors—especially professional groups—are entrusted with discretionary authority in the first place, or why the scope of that authority varies systematically across institutional contexts (Evans, 2003; Pratt & Sossin, 2009). By foregrounding rule indeterminacy, resource

scarcity, and managerial design, governance scholarship emphasizes proximate mechanisms while backgrounding the institutional processes through which discretion becomes legitimate, durable, and unevenly allocated (Lipsky, 1980; Mashaw, 1983; Wallander & Molander, 2014). From the perspective developed here, discretion consequently appears as an institutional constant—relocated or constrained, but rarely theorized as a variable whose distribution itself requires explanation (Evans, 2003).

These limitations are particularly pronounced in contexts where discretion is exercised by highly credentialed professionals, such as medical practitioners, whose authority cannot be reduced to frontline position or organizational role. While governance scholarship acknowledges the influence of professional norms on discretionary practice, it generally treats professional actors as implementers embedded within administrative hierarchies rather than as historically empowered authorities whose judgment carries institutional legitimacy independent of managerial delegation (Evans, 2003; Pratt & Sossin, 2009). Even when managerialism, audit regimes, or political oversight constrain professional judgment, these developments are typically analyzed as shifts in administrative control rather than as reconfigurations of professional authority itself (Brock et al., 2014; Evans, 2003). The implication, as framed by this study, is that governance-centered accounts offer limited leverage for explaining why professional discretion is institutionally protected in some settings while rendered procedural, conditional, or compliance-oriented in others (MacDonald & Franko, 2007; Pratt & Sossin, 2009).

In this respect, governance and implementation scholarship excels at explaining the operation of discretion within public institutions but provides a comparatively thinner account of the sources of discretionary authority when that authority rests on professional expertise rather than positional hierarchy (Evans, 2003; Mashaw, 1983). The argument advanced in this

dissertation is that explaining why discretion is afforded to professionals, how professional judgment becomes a legitimate basis for consequential decision-making, and why these arrangements vary across institutional contexts requires analytical tools that move beyond administrative design and implementation dynamics. These questions shift the focus from discretion as a mechanism of governance to discretion as a form of institutionalized professional power. The sociology of professions provides the conceptual leverage necessary to make this shift, and the following section turns to that literature to examine how professional discretion is constituted, differentiated, and constrained under contemporary governance conditions.

2.3. Professional Authority and the Institutional Foundations of Discretion

The sociology of professions offers a complementary but distinct perspective on discretion by locating its origins not primarily in governance structures or implementation processes, but in the institutional organization of professional authority. Rather than treating discretion as a residual category that emerges where rules are incomplete, this literature conceptualizes discretionary power as a function of how expertise is recognized, authorized, and embedded within organizational and regulatory contexts. Discretion, from this perspective, is inseparable from broader questions of professional legitimacy, authority, and control.

A central contribution of this body of work is its insistence that professional status alone cannot explain the scope or distribution of discretionary power. While professional expertise provides a cognitive foundation for judgment, the ability to act on that judgment depends on whether institutions confer decision-making authority and sustain it over time. As a result, discretion is understood as conditional, uneven, and context-dependent, shaped by organizational hierarchies, governance regimes, and shifting standards of accountability rather than uniformly attached to professional roles.

This section synthesizes contemporary sociology of professions scholarship to clarify how discretion is structured through professional authority under modern governance conditions. It proceeds by first examining the relationship between expertise, legitimacy, and authority; then analyzing how organizations mediate and differentiate professional discretion internally; and finally assessing how hybrid authority arrangements and boundary work impose structural limits on professional control. Together, these strands advance an understanding of discretion as an institutionally produced and contested form of power, setting the stage for the broader critique of existing discretion literatures developed in the subsequent section.

2.3.1. Professions, Expertise, and Legitimate Authority

Contemporary scholarship in the sociology of professions conceptualizes professional discretion as contingent upon the institutional authorization of expertise rather than as an inherent attribute of professional knowledge or training (Anker & Lurie, 2022; Noordegraaf, 2020; Saks, 2021). Expertise is treated as a necessary but insufficient condition for discretionary power: professional judgment acquires binding force only when organizational and governance arrangements recognize it as a legitimate basis for consequential decision-making (Evans, 2020; Tidmarsh, 2022). Discretion therefore reflects the extent to which professional knowledge is institutionally empowered to shape outcomes, rather than merely inform or advise action.

A central analytic distinction concerns the separation of epistemic authority from decision-making authority under contemporary governance conditions (Anker & Lurie, 2022; Saks, 2021). Epistemic authority denotes the recognition of expertise as credible and relevant; decision-making authority denotes the institutional capacity to act on that expertise in ways that carry formal consequences. Empirical research demonstrates that professionals often retain epistemic legitimacy while losing control over decisions, producing configurations in which

expertise is acknowledged yet discretion is constrained, conditional, or displaced to managerial and regulatory actors (Evans, 2020; Noordegraaf, 2020). This decoupling clarifies why variation in discretionary power cannot be explained by credentialing or training alone.

Legitimacy under these conditions is situational and organizationally mediated rather than secured by professional status (Tidmarsh, 2022; Waring, 2021). Intensified accountability, audit, and performance management regimes evaluate professional judgment according to its alignment with efficiency, risk management, and procedural compliance (Noordegraaf, 2020; Timmermans & Berg, 2020). Discretion persists within such environments but is reframed as institutionally sanctioned judgment exercised within bounded and surveilled spaces, rather than as protected autonomy grounded in occupational identity (Evans, 2020; Saks, 2021).

This restructuring operates through performative and justificatory practices that shape both the scope and form of discretion (Anker & Lurie, 2022; Tidmarsh, 2022). Professionals are required to render judgments visible, auditable, and defensible through documentation, standardized reasoning, and reference to codified evidence or guidelines (Timmermans & Berg, 2020; Waring, 2021). These mechanisms do not eliminate discretion but privilege forms of expertise that can be articulated within dominant organizational and regulatory logics while marginalizing forms resistant to codification (Evans, 2020; Noordegraaf, 2020).

Recent scholarship captures this reconfiguration through the concept of hybrid professionalism, describing professional authority at the intersection of professional, managerial, and regulatory logics (Noordegraaf, 2020; Saks, 2021). Under hybrid arrangements, professionals remain responsible for complex and uncertain decisions, yet their authority is mediated by organizational structures that define when and how discretion is legitimate (Tidmarsh, 2022; Waring, 2021). Discretion thus becomes conditional and context-dependent,

secured not by expertise alone but by professionals' capacity to align judgment with governance expectations (Evans, 2020; Anker & Lurie, 2022).

This body of work conceptualizes professional discretion as the outcome of institutionalized legitimacy linking expertise to authority under contemporary governance conditions (Anker & Lurie, 2022; Noordegraaf, 2020; Saks, 2021). Expertise provides the epistemic foundation for judgment, but discretionary power depends on whether organizational and regulatory systems authorize professionals to act on that judgment in consequential ways (Evans, 2020; Waring, 2021). By foregrounding legitimacy as conditional, mediated, and unevenly distributed, this literature offers a precise account of how and why professional discretion varies systematically across institutional contexts.

2.3.2. Organizational Mediation and the Distribution of Professional Discretion

Contemporary scholarship emphasizes that professional discretion is structured and redistributed through organizational arrangements rather than uniformly attached to professional status (Anker & Lurie, 2022; Noordegraaf, 2020; Tidmarsh, 2022). Organizations operate as the primary sites in which professional authority is enacted, filtered, and constrained, translating abstract expertise into routinized decision-making practices differentiated by role, hierarchy, and institutional mandate (Evans, 2020; Waring, 2021). Discretion is therefore not simply exercised within organizations but produced through design choices that determine who may decide, under what conditions, and with what forms of accountability.

A central empirical finding is that discretion is unevenly distributed within professions due to internal stratification and hierarchical positioning (Noordegraaf, 2020; Saks, 2021). Senior professionals, managerial actors, and boundary-spanning roles retain authority over high-stakes or interpretive decisions, while frontline professionals experience intensified proceduralization

and oversight despite comparable expertise (Tidmarsh, 2022; Waring, 2021). Organizational roles thus function as gatekeeping mechanisms that allocate discretionary space and define which decisions are legitimately subject to professional interpretation (Evans, 2020).

Organizational priorities—particularly efficiency, risk management, and performance measurement—further structure discretionary authority (Noordegraaf, 2020; Timmermans & Berg, 2020). Through protocols, guidelines, and audit systems, organizations reclassify professional decisions as technical or procedural, narrowing acceptable judgment and redirecting discretion toward compliance-oriented interpretation (Evans, 2020; Waring, 2021). Discretion is not eliminated but relocated, privileging judgments aligned with organizational logics while constraining those grounded primarily in professional norms or experiential knowledge (Anker & Lurie, 2022).

This mediation generates patterned variation across institutional contexts, even within the same profession (Tidmarsh, 2022; Saks, 2021). Highly regulated and performance-driven environments produce narrower and more conditional forms of discretion than settings characterized by looser oversight or greater tolerance for professional judgment (Noordegraaf, 2020; Evans, 2020). Discretion thus becomes context-dependent, shaped by governance regimes rather than expertise alone (Waring, 2021).

Organizational mediation is also dynamic rather than static (Anker & Lurie, 2022). Professionals strategically negotiate, reinterpret, or adapt rules to preserve discretionary space within bounded conditions, yet such strategies are conditioned by hierarchical position and authority (Tidmarsh, 2022; Noordegraaf, 2020). Internal stratification therefore limits the capacity of frontline actors to expand discretion absent structural change, reinforcing the uneven distribution of authority within professions (Evans, 2020; Saks, 2021).

Taken together, this body of work demonstrates that professional discretion is organized through institutional hierarchies, role differentiation, and governance priorities that redistribute authority within professions (Noordegraaf, 2020; Tidmarsh, 2022; Waring, 2021). Organizational mediation explains systematic variation in discretion across actors and settings, even where professional knowledge and credentials are comparable (Evans, 2020; Anker & Lurie, 2022). By locating discretion within organizational structures rather than individual judgment, this literature clarifies the limits of professional authority under contemporary governance conditions and provides a foundation for analyzing how boundary work and hybrid authority further shape discretionary power.

2.3.3. Hybrid Authority, Boundary Work, and the Limits of Professional Control

Contemporary scholarship characterizes professional discretion as exercised within hybrid authority arrangements that combine professional, managerial, and regulatory logics rather than as insulated autonomy grounded solely in expertise (Anker & Lurie, 2022; Noordegraaf, 2020; Saks, 2021). Under these conditions, authority is neither abolished nor intact but reconfigured through institutional arrangements that condition when, where, and how judgment is legitimate (Tidmarsh, 2022; Waring, 2021). Discretion persists, yet its scope and form are structured through boundary-setting processes that delimit professional control over consequential decision-making.

Boundary work constitutes the central mechanism through which this restructuring occurs (Noordegraaf, 2020; Saks, 2021). Organizational actors reclassify decisions as requiring expert judgment or as administrative, procedural, or compliance tasks, thereby redefining the domain in which discretion is recognized as legitimate (Evans, 2020; Timmermans & Berg, 2020). Protocols, performance metrics, and audit systems narrow professional jurisdiction while

expanding managerial and regulatory oversight, relocating discretion within institutional hierarchies rather than eliminating it (Waring, 2021; Tidmarsh, 2022).

Hybrid authority arrangements simultaneously transform the normative basis of discretion by shifting legitimacy from trust in expertise toward demonstrable alignment with organizational and governance priorities (Anker & Lurie, 2022; Noordegraaf, 2020). Professional judgments are evaluated through criteria such as efficiency, risk management, and procedural compliance, requiring articulation in institutionally legible forms that can be documented, audited, and standardized (Evans, 2020; Timmermans & Berg, 2020). Discretion therefore becomes conditional, privileging reasoning compatible with dominant managerial and regulatory logics (Waring, 2021).

These dynamics also operate internally. Boundary work redistributes discretion within professions, concentrating interpretive and strategic authority among senior professionals, managerial hybrids, and boundary-spanning actors, while subjecting frontline roles to intensified procedural constraint (Noordegraaf, 2020; Tidmarsh, 2022; Saks, 2021). Hybrid authority thus stratifies professional power by allocating discretionary space to actors positioned to navigate intersecting institutional logics (Evans, 2020; Waring, 2021).

Crucially, these arrangements impose structural limits that exceed the reach of individual strategy or professional norms (Anker & Lurie, 2022; Saks, 2021). Although professionals may negotiate, reinterpret, or selectively comply with organizational constraints, the scope of such action is conditioned by institutional design and governance regimes that define acceptable forms of judgment (Noordegraaf, 2020; Tidmarsh, 2022). Boundary work thereby stabilizes hybrid authority while constraining the expansion of discretion beyond institutionally sanctioned domains (Evans, 2020).

Taken together, this literature conceptualizes hybrid authority and boundary work as mechanisms through which professional discretion is redistributed, rendered conditional, and institutionally bounded under contemporary governance (Noordegraaf, 2020; Tidmarsh, 2022; Waring, 2021). Discretion persists, but it is no longer anchored in expertise alone; it is structured through institutional processes that define legitimate judgment and allocate control across professional, managerial, and regulatory actors (Anker & Lurie, 2022; Saks, 2021). This perspective clarifies the structural limits of professional authority and provides a bridge to the broader critique of discretion literatures developed in the subsequent section.

2.3.4. Analytical Limits of Professional Authority Accounts

The sociology of professions shifts the analysis of discretion away from administrative position and rule indeterminacy toward the institutional authorization of professional authority. By distinguishing expertise from decision-making authority and foregrounding legitimacy as a socially constructed and organizationally mediated resource, this literature clarifies why professional judgment carries binding force in some settings but is rendered advisory, conditional, or procedurally constrained in others (Anker & Lurie, 2022; Noordegraaf, 2020; Saks, 2021). In doing so, it provides analytic leverage that governance- and implementation-centered accounts lack, particularly for explaining discretion exercised by medical professionals whose authority rests on historically constituted claims to expertise, trust, and jurisdiction rather than on frontline position alone (Evans, 2020; Tidmarsh, 2022).

At the same time, the assessment advanced in this dissertation is that sociological accounts of professional discretion tend to concentrate explanatory attention at the organizational and sectoral level, tracing how professional authority is mediated, stratified, and reworked under contemporary conditions of accountability, audit, and managerial oversight. Concepts such as

epistemic versus decision-making authority, hybrid professionalism, and boundary work illuminate how discretion persists while its scope is narrowed, redistributed, or rendered conditional through organizational hierarchies and governance priorities (Noordegraaf, 2020; Saks, 2021; Waring, 2021). These insights are essential for understanding how professional discretion operates in practice; however, from the perspective developed here, they often treat the institutional environments in which such dynamics unfold as given rather than as outcomes requiring explanation in their own right (Evans, 2020; Tidmarsh, 2022).

As a result, while the sociology of professions excels at explaining how professional discretion is negotiated, constrained, and defended within organizations, this study contends that it offers more limited leverage for explaining why similar professional groups operate under markedly different discretionary regimes across institutional contexts. Variation in the scope and durability of professional authority is frequently attributed to contemporary governance pressures or organizational design choices, leaving under-theorized the historical and political processes through which particular authority settlements become institutionalized and resistant to change (Noordegraaf, 2020; Saks, 2021). In the interpretation advanced in this dissertation, the absence of an account of institutional development means that professional discretion risks being analyzed primarily as a situational response to present conditions rather than as the product of historically contingent arrangements that structure what forms of judgment are legitimate, defensible, and sustainable over time (Evans, 2020).

In this sense, the sociology of professions identifies professional authority as a critical dimension of discretionary power but does not fully explain why the institutional conditions that authorize or constrain that authority diverge and persist across jurisdictions. The argument developed in this study is that addressing this limitation requires extending the analysis beyond

organizational mediation and hybrid authority to examine how professional discretion is shaped by historically embedded institutional trajectories and the political–economic arrangements through which professional labor is governed. These unresolved questions motivate the broader critique of the existing discretion literature developed in the following section.

2.4. Limits of Existing Approaches to Discretion

Despite substantial scholarship on discretion across public administration, political science, and the sociology of professions, this dissertation contends that the existing literature remains analytically dispersed and insufficiently centered around a common set of causal claims that can explain systematic variation in discretionary power across institutional contexts (Evans, 2003; Noordegraaf, 2020; Pratt & Sossin, 2009). Across traditions, discretion is widely treated as "structured judgment" exercised within bounded environments, as numerous scholars explicitly argue (Evans, 2003; Mashaw, 1983; Wallander & Molander, 2014). Yet the mechanisms that generate variation in the scope of discretionary authority are often specified unevenly, with explanatory attention shifting across legal indeterminacy, organizational constraints, and professional authority without an integrating framework that links these dimensions into a coherent account of institutional divergence. From the standpoint advanced in this study, the result is a literature that offers robust insights into where discretion appears and how it is exercised, but provides a weaker basis for explaining why discretion becomes broader or narrower across jurisdictions and why such differences persist over time (Evans, 2003; Noordegraaf, 2020; Waring, 2021).

First, the literature exhibits persistent conceptual slippage among discretion, autonomy, authority, and professional judgment, a pattern identified across multiple strands of scholarship (Evans, 2003; Pratt & Sossin, 2009; Wallander & Molander, 2014). Even where scholars

converge on the idea that discretion is not unbounded freedom but authorized judgment under constraint, definitions vary in whether discretion is located in legal permission structures, organizational delegation, professional legitimacy, or micro-level decision behavior (Evans, 2003; Noordegraaf, 2020; Pratt & Sossin, 2009). This definitional pluralism has produced a literature that is rich descriptively yet uneven analytically, as empirical work often measures proxies—such as rule density, managerial oversight, or professional status—without consistently specifying which dimension of discretionary power is being captured (Evans, 2010; Timmermans & Berg, 2020; Waring & Bishop, 2013). The consequence, as interpreted in this dissertation, is that discretion sometimes functions as a residual category that absorbs multiple phenomena—interpretation, prioritization, triage, and policy meaning-making—without stable boundaries that would permit systematic cross-context explanation (Lavee, 2021; Lipsky, 1980; Mashaw, 1983).

Second, much of the most rigorous work explains discretion through proximate institutional mechanisms—rule indeterminacy, resource constraints, organizational routines, managerial oversight, and accountability regimes—as demonstrated in street-level, organizational, and professional literatures (Brock et al., 2014; Evans, 2003; Lipsky, 1980). Street-level and frontline governance research demonstrates that discretion is structurally generated by the joint presence of indeterminate guidance and consequential choice, and that formalization frequently displaces rather than eliminates discretionary judgment (Evans, 2003; Lipsky, 1980; Pratt & Sossin, 2009). Organizational accounts similarly show how discretion is redistributed through managerial strategy, performance regimes, and audit systems, shifting discretionary space upward or sideways within institutional hierarchies (Brock et al., 2014; Evans, 2003; Hawkins, 2002). Sociological work on professions further clarifies that discretion

depends on legitimacy and authority rather than expertise alone, and that hybrid arrangements reconfigure professional judgment under contemporary governance pressures (Anker & Lurie, 2022; Noordegraaf, 2020; Saks, 2021).

However, the analytical claim advanced here is that these literatures often stop at explaining how discretion operates once institutional arrangements are in place, rather than explaining why particular configurations of professional authority, managerial control, and accountability emerge in the first place (Evans, 2003; Noordegraaf, 2020; Waring, 2021). Organizational mediation is frequently treated as an explanatory endpoint—organizations constrain, channel, or redistribute discretion—rather than as an object requiring explanation across jurisdictions (Evans, 2020; Timmermans & Berg, 2020; Waring, 2021). Similarly, professional authority is frequently theorized as conditional and contested, yet the literature offers less leverage for explaining why some governance contexts institutionalize stronger decision-making authority for professionals while others institutionalize more proceduralized, compliance-oriented forms of professional action (Anker & Lurie, 2022; Saks, 2021; Tidmarsh, 2022). In the absence of a developmental account of institutional configuration, this study maintains that discretion risks being analyzed as an ever-present feature of governance rather than a variable institutional outcome that evolves and stabilizes differently across contexts (Evans, 2003; Pratt & Sossin, 2009; Waring & Bishop, 2013).

Third, and most consequential for the dissertation's research question, this study contends that the existing literature provides limited tools for explaining cross-jurisdictional variation in discretionary power through historically grounded and political-economic analysis (Evans, 2003; MacDonald & Franko, 2007; Pratt & Sossin, 2009). Comparative leverage is often implied—discretion is said to vary across legal regimes, organizational environments, or professional

systems—yet the mechanisms that produce durable divergence across jurisdictions are rarely specified in ways that travel beyond single-case or sector-specific accounts (Evans, 2003; Noordegraaf, 2020; Waring, 2021). When political oversight and upstream controls are incorporated, they are frequently treated as constraints that shift discretion into compliance-oriented decision points, rather than as components of broader institutional development trajectories that shape how discretion becomes embedded and defended over time (MacDonald & Franko, 2007; Mashaw, 1983; Pratt & Sossin, 2009). Even scholarship highlighting crisis conditions and resource scarcity tends to emphasize how discretion expands or shifts under stress, rather than how repeated institutional responses to stress generate long-run patterns of authority allocation across jurisdictions (Lavee, 2021; Peris Cancio & Monteiro Mustafá, 2024; Waring, 2021).

The sociology of professions strengthens the analysis by demonstrating that discretion depends on legitimacy, that authority is often hybridized, and that organizational boundary work can reclassify professional judgment into procedural compliance (Anker & Lurie, 2022; Noordegraaf, 2020; Tidmarsh, 2022). Yet even here, the interpretation advanced in this dissertation is that the literature more often documents the contemporary reconfiguration of professional authority than explains why specific institutional settlements take the form they do across jurisdictions, particularly when those jurisdictions share professional training pipelines but differ markedly in governance and political economy (Noordegraaf, 2020; Saks, 2021; Waring & Bishop, 2013). As a result, the empirical patterns motivating this dissertation—variation in the level of discretion afforded to medical professionals across states—remain under-theorized as products of institutional development and political-economic structure rather than

treated primarily as outcomes of organizational design or administrative governance in the present (Evans, 2003; Evans, 2020; Tidmarsh, 2022).

Ultimately, although the literature provides strong micro- and meso-level accounts of how discretion is exercised and redistributed, this study argues that it lacks a centering framework for explaining why institutional configurations that structure discretionary power diverge across jurisdictions and persist over time (Brock et al., 2014; Evans, 2003; Noordegraaf, 2020). Discretion is repeatedly shown to be structured by organizational hierarchies, accountability regimes, professional legitimacy, and political oversight, yet these factors are typically theorized as contemporaneous constraints rather than as outcomes of historically sequenced institutional choices with self-reinforcing effects (Evans, 2003; Mashaw, 1983; Waring, 2021). Similarly, while boundary work and hybrid professionalism explain how discretion is conditioned under modern governance, they do not on their own specify why some jurisdictions institutionalize broader professional decision authority while others institutionalize tighter proceduralization and managerial control (Anker & Lurie, 2022; Noordegraaf, 2020; Saks, 2021).

This dissertation addresses this gap by re-centering the explanation of discretionary power on institutional development and political–economic context. A historically oriented framework is necessary to explain how early institutional design choices allocate authority to professional groups, how feedback processes stabilize those allocations over time, and why subsequent reform efforts more often displace or reconfigure discretionary power than fundamentally transform it (Evans, 2003; Mashaw, 1983; Pratt & Sossin, 2009). A political–economic framework is likewise required to explain how jurisdictions differ in the coordination of state, market, and professional authority, shaping both the legitimate scope of professional

judgment and the governance mechanisms through which that judgment is constrained or defended (Evans, 2020; MacDonald & Franko, 2007; Noordegraaf, 2020). Together, these analytical needs motivate the theoretical synthesis developed in the next section, where path dependency and varieties of capitalism provide the institutional and political–economic leverage necessary to explain durable cross-jurisdictional variation in discretionary power. In this way, the dissertation moves beyond existing discretion scholarship, which offers compelling accounts of how discretion operates, but provides more limited leverage for explaining why it varies systematically across institutional contexts.

2.5. Theoretical Framework: Institutional Development and Discretionary Power

To explain why the level of discretion afforded to medical professionals varies across states, this chapter advances a theoretical framework that treats discretion as an institutional outcome shaped by both historical trajectories and contemporary political–economic governance. Rather than locating discretion in individual expertise or implementation gaps, the framework conceptualizes professional judgment as embedded in durable authority relations that structure who is authorized to decide, how discretion is exercised, and the conditions under which it is constrained. These authority relations are neither ahistorical nor static; they are produced through early institutional choices that define professional roles and are subsequently governed through market structures that organize skill formation, oversight, and control.

The framework integrates path dependency and political economy to capture this dual process. Path dependency provides leverage on how early policy decisions establish enduring distributions of authority between the state, organizations, and medical professionals, generating governance trajectories that are resistant to rapid change. Political economy approaches, grounded in the varieties of capitalism tradition, explain how market structures govern

professional work by shaping how expertise is valued, monitored, and disciplined in practice. Together, these perspectives allow discretion to be analyzed as a historically structured and contemporaneously governed outcome, offering a coherent explanation for persistent cross-state variation and establishing the theoretical foundation for the hypotheses developed in the sections that follow.

2.5.1. Path Dependency and Discretionary Power

Path dependency provides a foundational framework for explaining why the level of discretion afforded to medical professionals varies across states. At its core, path dependency posits that institutional arrangements, once established, constrain future choices by narrowing the range of politically, administratively, and cognitively feasible alternatives (Arthur, 1994; Pierson, 2000). Early policy decisions generate self-reinforcing processes that stabilize particular governance arrangements over time, even as external conditions, technologies, and professional knowledge evolve (Pierson, 2004). Institutional persistence, from this perspective, is not necessarily evidence of efficiency or optimality, but rather the result of historically contingent choices that become progressively more difficult to reverse as institutions mature and adapt around them (Arthur, 1994; Pierson, 2000).

Within historical institutionalism, path dependency is understood as a temporal causal process rather than a static condition. Initial policy choices—often made under conditions of uncertainty, political compromise, or incomplete information—establish institutional trajectories that shape subsequent actor behavior, expectations, and distributions of power (Mahoney, 2000; Thelen, 1999). Over time, positive feedback mechanisms reinforce these trajectories by increasing the material, organizational, and political costs associated with deviation (Pierson, 2004). As a result, institutional change tends to be biased toward continuity, even when

alternative arrangements may appear normatively appealing or technically superior. This temporal dimension is particularly important for understanding professional discretion, which is embedded in institutional environments that evolve cumulatively rather than episodically and are therefore especially resistant to rapid transformation.

Classic formulations of path dependency emphasize increasing returns and positive feedback as key mechanisms of institutional persistence. Early institutional choices generate benefits for particular actors, such as access to authority, resources, or legitimacy, which in turn motivates those actors to defend and reproduce existing arrangements (Arthur, 1994). As institutions mature, they accumulate layers of formal rules, informal routines, and vested interests that further entrench established patterns of governance (Pierson, 2000). These dynamics are especially pronounced in political systems, where veto points, distributional conflict, and weak efficiency-correcting mechanisms limit the capacity for coordinated reform (Pierson, 2004). Consequently, political and regulatory institutions often persist not because they are optimal, but because they are difficult to dislodge once embedded in legal frameworks and organizational practices.

Importantly, path dependency does not imply institutional determinism or immutability. Rather, it emphasizes that change is conditional and constrained. Institutional transformation typically requires coordination across multiple actors and arenas, particularly when existing arrangements distribute authority, resources, and legitimacy unevenly (Mahoney, 2000; Steinmo et al., 1992). Such coordination is often difficult to achieve precisely because incumbent institutions advantage some actors over others, generating resistance to reform even in the presence of compelling evidence or external pressure. In the absence of sustained coordination, reform efforts are likely to proceed incrementally through processes such as layering, drift, or

reinterpretation rather than wholesale replacement (Streeck & Thelen, 2005). This emphasis on constrained choice is central to understanding why variation in professional discretion often persists despite shifting policy priorities or advances in professional practice.

Applied to professional governance, path dependency highlights how the roles, responsibilities, and authority of professional groups are defined at particular historical moments and subsequently stabilized through institutional reproduction. Professional discretion is not simply a function of expertise or training, but the product of historically embedded arrangements that specify who is authorized to make decisions, under what conditions, and with what degree of oversight. Once established, these arrangements shape how professionals are perceived by the state, organizations, and the public, thereby constraining future redefinitions of professional authority and responsibility. In this sense, discretion is an institutional relationship rather than an individual attribute, structured by the cumulative effects of policy design, organizational practice, and normative expectation.

In health policy contexts, scholars have repeatedly shown that early institutional choices structure subsequent reform trajectories. Health systems exhibit particularly strong path-dependent characteristics because they involve complex organizational arrangements, powerful professional groups, and high levels of political salience (Bevan & Robinson, 2005; Pierson, 2004). Initial decisions regarding the allocation of authority between the state and medical professionals—such as the degree of professional self-regulation, the design of reimbursement mechanisms, and the formal recognition of clinical judgment—create enduring patterns of discretion that persist even as policy instruments, technologies, and service delivery models change. As a result, professional discretion often reflects historical compromises and institutional

settlements rather than contemporary assessments of efficiency or effectiveness (Bevan & Robinson, 2005).

Path dependency also operates through ideational and cognitive mechanisms that shape how policy problems are defined and which solutions are perceived as legitimate. Dominant ideas about the appropriate role of medical professionals become embedded in institutional design and policy discourse, limiting the range of alternatives that policymakers consider viable (Pierson, 2004; Whyle et al., 2016). These ideational constraints reinforce institutional arrangements by shaping expectations about professional authority and responsibility, making certain governance models appear natural or inevitable while rendering others politically or cognitively inaccessible. Consequently, even reform efforts explicitly aimed at improving accountability or standardization may reproduce existing discretionary boundaries rather than transform them, as new policies are interpreted through established institutional frames (Whyle et al., 2016).

While path dependency emphasizes persistence, it also identifies the conditions under which change is possible. Institutional transformation typically requires coordination among actors with the authority and capacity to redefine professional roles, redistribute resources, and alter normative expectations. Such coordination is difficult precisely because existing arrangements generate power asymmetries and vested interests that favor continuity (Mahoney, 2000; Peters et al., 2005). In the absence of sustained coordination, reform efforts are likely to be absorbed into existing structures through incremental adjustment rather than fundamental reconfiguration, preserving core features of established governance arrangements even as surface-level changes occur.

Health policy research illustrates this dynamic clearly. Even when robust evidence supports alternative governance arrangements, historical institutional legacies often constrain reform outcomes (Greener, 2002; Baeza, 2023). Reforms that challenge established professional discretion frequently encounter resistance rooted in institutional memory, organizational routines, and public expectations regarding medical authority. As a result, policy change tends to occur within the parameters set by earlier decisions, reinforcing rather than dismantling existing discretionary regimes (Bevan & Robinson, 2005). These dynamics help explain why professional discretion can persist despite repeated reform efforts aimed at cost control, standardization, or performance management.

Crucially, path dependency suggests that variation across states is not merely the result of contemporary political preferences or regulatory choices, but reflects divergent historical trajectories. States that institutionalized high levels of professional discretion early in the development of their health governance systems are likely to maintain those arrangements over time, while states that adopted more restrictive or centralized models face higher barriers to expanding discretion later. These divergent paths persist even in the face of similar external pressures, such as technological change or fiscal constraint, because institutional reproduction mechanisms operate over long time horizons and shape how reform options are perceived and pursued (Pierson, 2004; Brady et al., 2016).

The path dependency framework provides a powerful explanation for persistent cross-state variation in professional discretion. Discretion is shaped not only by current regulatory choices, but by historically embedded institutional arrangements that define professional authority and constrain reform. Early policy decisions establish governance trajectories that privilege certain models of professional control, and these trajectories are reinforced through

legal structures, organizational practices, and ideational frames that bias change toward continuity. This framework also clarifies why efforts to standardize or harmonize professional discretion often yield uneven results. Without coordinated institutional change, reforms are filtered through existing arrangements, producing incremental modification rather than convergence. As a result, variation in professional discretion persists even among states facing similar policy challenges.

2.5.1.1. Path Dependency and Professional Discretion Hypothesis Development.

Path dependency suggests that the level of discretion afforded to medical professionals is not determined solely by contemporary regulatory preferences or policy debates, but is shaped by historically embedded institutional arrangements that govern the allocation of authority between the state, organizations, and professional actors (Pierson, 2000; Pierson, 2004). Early policy and governance decisions establish durable authority settlements that structure who is authorized to exercise consequential judgment and under what conditions (Mahoney, 2000; Mashaw, 1983). These settlements are subsequently reinforced through legal codification, organizational routines, professional norms, and public expectations, generating positive feedback processes that raise the political, administrative, and cognitive costs of departure over time (Arthur, 1994; Pierson, 2004). As a result, reform efforts tend to operate within inherited authority structures, modifying the conditions under which discretion is exercised rather than fundamentally reallocating decision-making power (Pratt & Sossin, 2009; Streeck & Thelen, 2005).

These dynamics imply persistent cross-state variation in professional discretion rooted in distinct institutional histories. Where early governance arrangements conferred broad authoritative decision-making power on medical professionals, discretion is more likely to

remain expansive even as oversight mechanisms evolve or intensify (Bevan & Robinson, 2005; Evans, 2003). Conversely, where initial institutional designs emphasized centralized control, proceduralization, or formalized oversight, professional discretion is more likely to remain constrained despite changes in medical knowledge, technology, or service delivery models (Mashaw, 1983; Pratt & Sossin, 2009). Although feedback processes operate across legal, organizational, and ideational levels, the primary site of path dependence is the institutional allocation of authoritative decision-making power, which defines what forms of professional discretion are regarded as legitimate, defensible, and politically feasible, thereby stabilizing variation across states over time (Pierson, 2004; Evans, 2003). This logic leads to the following hypothesis:

> *H1: Path dependency influences the level of discretion afforded to medical professionals across states.*

2.5.2. Political Economy, Market Structure, and Discretionary Power

Political economy approaches treat professional discretion as a patterned outcome of how states organize markets, allocate authority, and structure the production and deployment of skills (Hall & Gingerich, 2009). Within this family of theories, discretion is not simply an occupational attribute or a function of expertise in the abstract, but an institutional relationship shaped by governance arrangements that define who finances services, who bears risk, and who controls the terms of work (Hall & Gingerich, 2009). Market structure matters because it shapes the coordination problems that firms, workers, and the state must solve, and because those solutions generate durable complementarities across spheres such as labor markets, training systems, and regulation (Hall & Gingerich, 2009). The core analytic move, then, is to link variation in

discretion to variation in the institutional architecture through which medical labor is trained, monitored, incentivized, and disciplined (Hall & Gingerich, 2009).

Political economy frameworks grounded in the comparative capitalism tradition begin from the premise that capitalism is not a single convergent model, but a set of distinct institutional configurations that differentially structure economic behavior and political outcomes (Hall & Gingerich, 2009). These configurations operate through relational mechanisms rather than functionalist assumptions, emphasizing that firms and workers adapt strategies to the constraints and opportunities created by institutional environments (Hall & Gingerich, 2009). Institutional complementarity is central to this logic, because arrangements in one sphere (e.g., training) can reinforce arrangements in another (e.g., labor market mobility or employer governance) (Hall & Gingerich, 2009). The expectation of complementarity also implies that discretion in a given sector should be analyzed as embedded in a wider political–economic settlement rather than as a standalone feature of professional licensing or workplace norms (Hall & Gingerich, 2009).

At the same time, second-generation comparative capitalism work cautions against treating typologies as deterministic or assuming that institutional coherence is the modal condition (Hancké et al., 2007). Institutional arrangements may be hybrid, internally contradictory, and politically contested, particularly within advanced capitalist democracies facing ongoing pressures for reform and restructuring (Hancké et al., 2007). Complementarities can be partial, uneven across sectors, and subject to conflict among coalitions with divergent interests in how markets and labor are governed (Hancké et al., 2007). This extension is especially useful in contexts where cases do not map neatly onto classic regime categories, because it redirects analysis toward the political struggles and institutional layering through

which market structures and governance capacities are reconfigured over time (Hancké et al., 2007; Streeck & Thelen, 2005). Related methodological cautions in comparative welfare-state scholarship emphasize that moving from policy episodes to claims about national models requires explicit attention to levels of analysis, as macro-regime generalizations are often inferred from discrete reforms without demonstrating how micro-level decisions aggregate into coherent institutional patterns (Mätzke, 2009).

A political economy section oriented toward professional discretion can therefore retain the foundational insight that skills formation is a lynchpin of capitalist regimes while avoiding an overly rigid application of regime typologies (Hall & Gingerich, 2009; Hancké et al., 2007). Skills formation matters because it structures the bargaining position of labor, the dependence of employers on specialized expertise, and the state's capacity to standardize or audit professional work (Hall & Gingerich, 2009). Where training is treated as a collective or institutionally supported investment, specialized labor tends to be embedded in longer-term relationships and supported by governance arrangements that stabilize skill reproduction (Hall & Gingerich, 2009). Where training is treated as an individual responsibility and labor markets are more fluid, specialized expertise may still emerge, but it is more likely to be governed through competitive contracting, credential signaling, and managerial oversight mechanisms designed to reduce uncertainty and control costs (Hall & Gingerich, 2009).

In medical contexts, discretion is tightly linked to how uncertainty is managed in service delivery markets (Hall & Gingerich, 2009). As Arrow's foundational analysis makes clear, medical care is structurally distinguished by pervasive uncertainty, information asymmetry, and incomplete risk markets, conditions that systematically violate the assumptions required for competitive equilibrium and render contract completeness unattainable (Arrow, 1963). Medical

work is characterized by information asymmetries, high-stakes decision-making, and substantial variation in case complexity, all of which make it difficult to specify complete contracts ex ante (Hall & Gingerich, 2009). Because patients cannot reliably evaluate quality, necessity, or outcomes, and because illness itself is unpredictable and often coincides with loss of income, medical transactions depend on trust, professional norms, and institutionalized safeguards that substitute for standard market discipline (Arrow, 1963).

Political economy frameworks suggest that systems respond to this contracting problem by building institutional substitutes for missing contract completeness, such as professional self-regulation, hierarchical managerial control, or standardized performance metrics (Hall & Gingerich, 2009; Hancké et al., 2007). These substitutes can be understood as governance responses to the structural market failures generated by uncertainty, reallocating authority between professionals and external principals in ways that stabilize expectations and manage risk (Arrow, 1963). Each substitute implies a different allocation of authority between the profession and external principals, and thus implies a different "zone" of discretion in daily clinical judgment (Hall & Gingerich, 2009).

Variation in market structure is also expected to reshape discretion through the organization of payment and the distribution of financial risk (Hall & Gingerich, 2009). Where funding arrangements heighten cost competition or introduce quasi-market purchasing, institutions often expand audit capacity and managerial tools to render work legible, comparable, and controllable (Hancké et al., 2007). Where funding arrangements emphasize longer time horizons and stable institutional relationships, governance can rely more heavily on trust-based coordination and professional authority, because the system's control problem is partly solved through embeddedness rather than constant monitoring (Hall & Gingerich, 2009). Hybridization

matters here, because reforms can layer market mechanisms onto existing professional and bureaucratic institutions, producing mixed governance logics that may alternately expand or compress discretion depending on how they interact (Streeck & Thelen, 2005; Hancké et al., 2007).

Mechanisms of gradual institutional change are particularly relevant for linking political economy to within-case variation in discretion over time and across jurisdictions (Streeck & Thelen, 2005). Layering can add new managerial or market instruments onto existing professional governance, altering discretion without formally abolishing professional authority (Streeck & Thelen, 2005). Drift can occur when formal rules remain stable while the surrounding economic environment changes, shifting how discretion is exercised or constrained in practice (Streeck & Thelen, 2005). Conversion can redirect existing institutions toward new purposes, such as using licensing boards, clinical guidelines, or reporting requirements as tools of cost control rather than purely quality assurance (Streeck & Thelen, 2005). These modes of change imply that "market structure" should be operationalized broadly to include the evolving configuration of funding, contracting, performance management, and regulatory oversight that shapes the practical governance of professional work (Streeck & Thelen, 2005; Hancké et al., 2007). They also reinforce the need to avoid reifying regime categories when tracing change, since incremental reforms may alter governance content without necessarily producing a coherent shift at the macro-model level (Mätzke, 2009).

Health governance scholarship further supports the need for theoretical pluralism in explaining institutional and policy change in health systems, emphasizing that the dependent variable must be specified across timing, type, and content of reform (Cacace & Frisina, 2010). This framing is directly applicable to discretion as an outcome, because discretion can change

incrementally even when headline institutional structures appear stable (Cacace & Frisina, 2010; Streeck & Thelen, 2005). Reform timing can be opened by problem pressure or crisis, while reform content is shaped by existing institutions, actor strategies, and ideas that legitimize particular governance tools (Cacace & Frisina, 2010). For professional discretion, this implies that market-structuring reforms (e.g., procurement, outsourcing, performance management) can reconfigure authority relations without requiring a formal redefinition of professional roles (Cacace & Frisina, 2010; Streeck & Thelen, 2005).

Empirically adjacent work on discretion reinforces that economic and managerial governance reforms often alter discretion by changing the incentives and oversight environments within which professionals act (Whyle et al., 2016). Professional discretion can be reshaped when systems intensify auditing, standardization, or performance-driven accountability in response to fiscal pressures or organizational reforms (Whyle et al., 2016). Such reforms can compress discretion by narrowing acceptable decision ranges through protocols and monitoring, or reallocate discretion by shifting decision authority upward to managers or outward to purchasers and regulators (Whyle et al., 2016). At the same time, reforms can produce "new" forms of discretion by delegating complex judgments downward while intensifying reporting requirements, creating a governance environment in which discretion exists but is exercised under heightened surveillance and constraint (Whyle et al., 2016).

Recent discretion scholarship also underscores that discretion varies with organizational control systems, workforce governance, and professional regulation, rather than tracking expertise alone (Rozier et al., 2020). Organizational settings can condition the extent to which professional judgment is supported, contested, or overridden, particularly where external oversight regimes are strong or where institutional principals face high political or financial risk

(Rozier et al., 2020). Discretion is thus sensitive to the distribution of authority across organizational levels and to the tools used to discipline decision-making, including documentation requirements, performance targets, and compliance architectures (Rozier et al., 2020). Comparative public administration work similarly shows that discretion is shaped by institutional design features and governance arrangements that structure how rules are interpreted and applied across contexts (Wongpreedee & Sudhipongpracha, 2024).

The political economy logic suggests that variation in medical discretion across states should be treated as an institutional outcome of how medical labor is governed within different market structures (Hall & Gingerich, 2009). Skill formation remains central because it shapes the dependence of employers and the state on professional expertise, while analytic leverage is gained by tracing how funding models, contracting arrangements, and oversight tools mediate that dependence (Hall & Gingerich, 2009; Hancké et al., 2007). Hybrid institutional configurations are expected to generate especially pronounced within-case variation, because market instruments can be layered onto professional governance in ways that differentially constrain discretion across sub-sectors, organizations, or policy domains (Streeck & Thelen, 2005; Hancké et al., 2007). Incremental reform trajectories further imply that discretion can vary substantially even in systems that appear institutionally similar at the regime level, because change is often produced through layering, drift, and conversion rather than rupture (Streeck & Thelen, 2005; Cacace & Frisina, 2010). Accordingly, caution is warranted when inferring regime-level properties from selected reforms, as policy history does not automatically reveal coherent national models without careful specification of how particular governance changes map onto broader institutional settlements (Mätzke, 2009).

2.5.2.1. Market Structure and Professional Discretion Hypothesis

Development. Political economy theory suggests that variation in professional discretion is systematically shaped by market structure. Market structures determine how medical services are financed, how providers are contracted and monitored, and how authority is allocated between professionals, organizations, and the state (Hall & Gingerich, 2009). These arrangements influence whether professional judgment is relied upon as a governing resource or constrained through managerial and regulatory controls designed to reduce uncertainty and financial risk (Hancké et al., 2007). Where market structures embed medical labor within stable institutional relationships—characterized by longer time horizons, coordinated governance, and reliance on specialized expertise—discretion is more likely to be sustained because professional judgment functions as a substitute for complete contracts and intensive monitoring (Hall & Gingerich, 2009).

By contrast, market structures emphasizing competition, fragmented purchasing, or short-term contracting create incentives to govern professional work through standardization, audit, and performance management rather than trust in professional authority (Whyle et al., 2016; Rozier et al., 2020). In such contexts, discretion is treated as a risk to be managed rather than as a necessary feature of service delivery, narrowing the range of acceptable professional judgment. Because market mechanisms are often layered onto existing professional and regulatory institutions, these effects may occur without formal changes to professional roles, producing cross-state variation in discretion even among otherwise similar systems (Streeck & Thelen, 2005; Cacace & Frisina, 2010). This logic yields the following hypothesis:

H2: The structure of the market influences the level of discretion afforded to medical professionals.

2.5.3. The Architecture of Discretionary Power

An integrated explanation of variation in professional discretion requires treating historical institutionalism and political economy as analytically sequential rather than parallel frameworks. Path dependency specifies how authority relations are initially constructed and stabilized, while political economy explains how those authority relations are subsequently governed through market structures. Taken together, the two frameworks imply that market structures do not operate on a neutral institutional terrain. Instead, their effects are conditioned by historically embedded allocations of authority that define the baseline scope, legitimacy, and defensibility of professional discretion (Pierson, 2004; Mahoney, 2000).

Path dependency establishes the institutional starting point. Early policy decisions define who is authorized to exercise judgment, how professional roles are recognized, and what forms of oversight are considered legitimate. These decisions generate durable governance trajectories through legal codification, organizational routines, and ideational frames that stabilize particular configurations of professional authority over time (Arthur, 1994; Pierson, 2000). As these arrangements mature, positive feedback mechanisms increase the costs of deviation and bias reform toward continuity, even when external conditions or policy goals change (Pierson, 2004). The result is not institutional stasis, but a bounded range of feasible reforms shaped by inherited distributions of authority and legitimacy.

Political economy operates within these bounds. Market structures—defined by funding arrangements, contracting mechanisms, and oversight tools—govern how professional expertise is deployed and controlled in practice (Hall & Gingerich, 2009). These structures shape whether discretion is treated as a necessary governance resource or as a source of risk requiring containment. However, political economy scholarship also emphasizes that market mechanisms

rarely replace existing institutions wholesale. Instead, they are layered onto inherited governance arrangements, interacting with established professional roles, regulatory capacities, and organizational norms (Streeck & Thelen, 2005; Hancké et al., 2007). Consequently, identical market instruments can produce different discretionary outcomes depending on the institutional context into which they are introduced.

This interactional logic is central to understanding variation in professional discretion. Where historical trajectories institutionalized professional judgment as a core coordinating mechanism, market-oriented reforms are likely to modify discretion through incremental adjustment—such as increased reporting or performance monitoring—without fundamentally displacing professional authority (Bevan & Robinson, 2005; Pierson, 2004). In these contexts, discretion may become more bounded or conditional, but it remains embedded as a legitimate feature of governance. By contrast, where early institutional arrangements emphasized centralized control or rule-bound administration, market structuring is more likely to reinforce external oversight and further compress discretionary space, as market instruments align with preexisting governance logics that privilege monitoring over trust (Mahoney, 2000; Peters et al., 2005).

The implication is that market structure does not exert a uniform, additive effect on discretion. Instead, its influence is mediated by path-dependent institutional baselines that shape the capacity of market actors to discipline professional judgment, the legitimacy of doing so, and the mechanisms through which control is exercised. Path dependency thus conditions both the *direction* and *magnitude* of market effects. Market structures can either attenuate or amplify constraints on discretion depending on whether they are layered onto regimes that historically

privileged professional authority or onto regimes that institutionalized skepticism toward discretionary judgment (Pierson, 2004; Streeck & Thelen, 2005).

This integrated framework resolves a key puzzle that neither theory alone can explain: why similar market reforms yield divergent discretionary outcomes across states. External pressures such as fiscal constraint, technological change, or policy diffusion may generate convergent reform agendas, but their effects are filtered through distinct institutional trajectories that shape how reforms are interpreted, implemented, and absorbed (Pierson, 2004). Professional discretion therefore emerges as a historically structured and contemporaneously governed outcome, produced through the interaction of inherited authority relations and present-day market governance.

2.5.3.1. Path Dependency, Market Structure, and Conditional Effects on Professional Discretion.

Historical institutionalism and political economy imply that market structure does not exert an independent or uniform effect on professional discretion. Instead, the influence of market structure is conditioned by path-dependent institutional arrangements that define the baseline allocation of authority between the state, organizations, and medical professionals. Early institutional decisions establish durable governance regimes that shape how professional judgment is understood, legitimated, and constrained over time. These regimes determine not only the initial scope of discretion, but also the institutional capacity of market mechanisms—such as contracting, performance management, and competition—to discipline or reconfigure professional authority. As a result, identical market structures may produce different discretionary outcomes depending on whether they are layered onto systems that historically

institutionalized professional discretion as a core governance principle or onto systems that emphasized centralized control and rule-based oversight.

From this perspective, path dependency conditions the operation of market structure through multiple causal channels. Historically embedded distributions of authority shape the identity and strength of principals capable of monitoring professional work, the legitimacy of external oversight over clinical judgment, and the organizational routines through which market governance instruments are implemented. Where professional discretion was institutionalized early and reinforced through legal, organizational, and ideational mechanisms, market-oriented reforms are more likely to modify discretion incrementally, producing bounded or conditional forms of professional judgment rather than wholesale displacement. Conversely, where early institutional arrangements constrained discretion and privileged hierarchical or bureaucratic control, market structuring is more likely to amplify external oversight and further narrow discretionary space. This conditional logic yields the following hypothesis:

H3: Path dependency conditions the influence of market structure on professionals' level of discretion.

2.6. Conclusion

This chapter has established the conceptual and theoretical foundation necessary to explain variation in the level of discretion afforded to medical professionals across states. By clarifying discretion as an institutional outcome rather than an individual or occupational attribute, the chapter resolved conceptual ambiguities in the existing literature and situated discretionary power within broader systems of governance, professional authority, and accountability. Through engagement with governance, professional, and institutional scholarship, discretion was reconstructed as a relational form of power produced through legal frameworks,

organizational arrangements, and normative expectations rather than as a residual space left by incomplete rules or managerial incapacity.

Building on this conceptual groundwork, the chapter developed an integrated theoretical framework that combines historical institutionalism and political economy to explain why discretionary authority varies systematically across state contexts. Path dependency provides leverage on how early policy decisions establish durable authority relations that shape the scope and legitimacy of professional discretion over time, while political economy explains how market structures govern professional work through skill formation, incentive systems, and mechanisms of oversight. The integration of these perspectives demonstrates that market governance does not operate on a neutral institutional terrain, but instead interacts with historically embedded trajectories that condition both the direction and magnitude of its effects. From this framework, three hypotheses were derived, specifying the independent influence of institutional trajectories, the role of market structure, and the conditional relationship between the two.

The next chapter translates this theoretical framework into an empirical research design capable of testing these claims. Chapter 3 outlines the methodological approach used to operationalize professional discretion, institutional trajectories, and market structure, and to trace their interaction across cases. It details the case selection strategy, data sources, and analytic techniques employed to evaluate the hypotheses developed here, ensuring that the empirical analysis is explicitly grounded in the causal logic established in this chapter.

Chapter 3 Methods

The question of why medical professionals possess different levels of discretion across states requires an approach capable of uncovering not only whether institutions and markets shape autonomy, but the processes through which those influences unfold. Because the dissertation advances three mechanism-oriented hypotheses examining how path-dependent institutional histories shape discretion (H1), how market structures influence discretion (H2), and how those institutional legacies condition the effects of market governance (H3), the research design must be able to reconstruct long-term trajectories, identify key decision points, and evaluate alternative explanations. A two-case design using archival data and process tracing provides the analytical leverage needed to trace the evolution of EMS systems in the United States and England and to assess whether the mechanisms proposed by each hypothesis are present, absent, or activated differently across contexts.

This chapter outlines the methodological foundation for that inquiry. It describes the logic of the case-study design, the selection of the United States and England as theoretically informative cases, and the use of organizational cases within each country to capture variation in institutional histories and market environments. It also explains the use of archival documentary material to reconstruct the evolution of EMT roles, governance structures, and scope of practice from the nineteenth century to the present, and details how process tracing is used to evaluate diagnostic evidence for and against each hypothesis. These methodological choices support a rigorous examination of how institutional development and market governance interact to shape the professional discretion afforded to EMTs.

3.1. Research Design and Logic of Inquiry

The present study employs a case study research design aimed at evaluating the causal mechanisms proposed in Chapter 1. Because the hypotheses concern how institutional legacies and market governance structures shape professional discretion, the design must support careful reconstruction of historical sequences and provide a way to infer whether specific mechanisms were activated in each context. A multiple-case design enables this type of analysis by allowing for both within-case and cross-case examination of whether the patterns predicted by each hypothesis emerge over time (Yin, 2018). Rather than seeking broad generalizability across a large number of countries, the logic of inquiry prioritizes depth, processual clarity, and the ability to discern whether observed outcomes are consistent with path dependency, market structure, or their interaction. The United States and England provide the contrast necessary for this purpose. Although both are advanced democracies with professionalized EMS workforces and shared pressures such as rising demand and increasing managerial oversight, they exhibit sustained divergence in institutional design, governance structures, and the role of markets in EMS delivery. This variation is analytically productive because it allows for the evaluation of how theorized mechanisms operate across different institutional environments (see Hall & Soskice, 2001; Thelen, 2004).

Within a comparative structure, the study relies on process tracing to evaluate evidence for and against each hypothesis. Process tracing is well suited to this project because it allows for the systematic examination of temporally ordered sequences, the identification of critical junctures and reinforcing mechanisms, and the assessment of whether specific institutional or market features produced discernible effects on EMT discretion (Beach & Pedersen, 2019; Bennett & Checkel, 2015; Collier, 2011; Mahoney, 2000; Pierson, 2004). The method treats

archival documents—such as statutes, regulatory guidance, organizational reports, professional standards, and government inquiries—as sources of diagnostic evidence that reveal how decisions, reforms, and organizational arrangements evolved over nearly two centuries. These materials help to determine whether the persistence of certain actors or rules supports the expectations of path dependency, whether changes in market structures align with predictions drawn from varieties-of-capitalism theory, and whether the impact of market reforms appears to be conditioned by earlier institutional choices. By combining carefully selected country cases with a method tailored to identifying mechanisms, the research design ensures that the evaluation of H1 through H3 rests on empirically grounded, historically sensitive, and theoretically informed analysis.

3.2. Units of Analysis, Scope, and Boundaries

Understanding variation in professional discretion requires clearly defining the focus of analysis and the empirical parameters within which the study is conducted. Without such boundaries, comparison across national contexts risks becoming inconsistent or analytically diffuse (Collier & Mahon, 1993; Sartori, 1970) . This section therefore identifies the primary unit of analysis, explains how discretion is conceptualized for the dissertation, and delineates the temporal and spatial limits of the research. Establishing these parameters provides a consistent foundation for evaluating the hypotheses and ensures that conceptual definitions are applied uniformly across both cases (George & Bennett, 2005; King, Keohane & Verba, 1994). Together, these elements create the structure necessary for meaningful cross-national comparison of EMT discretion.

3.2.1. Unit of Analysis and Conceptualization

The primary unit of analysis in this dissertation is professional discretion as exercised by Emergency Medical Technicians (EMTs) within the institutional environments of the United States and England. Professional discretion refers to the space in which individuals make choices among permissible courses of action based on their judgment, expertise, and interpretation of situational demands (Lipsky, 2010; Maynard-Moody & Musheno, 2003). In the EMS context, discretion does not arise from an absence of regulation but from the need to interpret and apply protocols in dynamic, high-stakes situations (Bigham et al., 2011; Jensen, Travers & Bard, 2011; O'Hara et al., 2015). This makes EMT discretion a particularly useful outcome for studying how institutional structures shape frontline professional behavior. By focusing on EMTs, the study examines a profession that operates at the intersection of medical expertise, public safety, and organizational governance (O'Hara et al., 2015; Wankhade, 2018).

For analytic purposes, discretion is conceptualized as a multidimensional construct composed of four interrelated forms (Evans, 2010; Maynard-Moody & Musheno, 2003; Tummers & Bekkers, 2014). Task or operational discretion captures decisions about how EMTs perform core responsibilities, including the prioritization of tasks, application of procedural knowledge, and adaptation to unpredictable on-scene conditions (O'Hara et al., 2015; Jensen, Travers & Bard, 2011). Clinical or autonomy-based discretion reflects the use of specialized skills and professional judgment to assess and manage patients within defined scope-of-practice boundaries (Jensen, Croskerry & Travers, 2012; O'Hara et al., 2015). Value-based or ethical discretion encompasses situations in which EMTs must reconcile procedural expectations with moral judgments or patient-centered considerations, particularly in ambiguous or ethically charged circumstances (Erbay et al., 2008; Iserson & Moskop, 2007). Finally, structural or

organizational discretion refers to the latitude afforded to EMTs as a product of organizational design, managerial oversight, and system-level governance, making it essential for understanding how institutional environments shape patterns of behavior (Wankhade, 2018).

Certain forms of discretion fall outside the scope of this analysis. In particular, rule-based or legal discretion, understood as the authority to interpret statutes or laws (Davis, 1969), is not a primary focus due to the highly regulated nature of EMT practice in both national contexts. EMTs generally operate under clearly defined statutory and clinical protocols, leaving little ambiguity at the legal level (National Highway Traffic Safety Administration, 2019; Jensen, Croskerry & Travers, 2012). As a result, examining rule/legal discretion would contribute limited insight into the mechanisms of interest in this dissertation. The forms selected—operational, clinical, ethical, and structural—are those most directly shaped by institutional and organizational development and therefore most relevant to evaluating the hypotheses.

3.2.2. Temporal Scope

The temporal scope of this study spans from the mid-1900s through 2023, covering the period in which modern emergency medical services began to take shape in both the United States and England (Institute of Medicine, 2007; United Kingdom Ministry of Health, 1946). This window captures the key developments that transformed ambulance services from largely transportation-focused operations into professionalized, clinically oriented systems. Beginning in the mid-twentieth century also aligns with the emergence of national standards, major policy reforms, and the introduction of formal training and certification processes that fundamentally altered the nature of EMT work (Institute of Medicine, 2007; National Research Council, 1966; Wankhade, 2017). By focusing on this era, the study examines the institutional and organizational changes most relevant to the evolution of professional discretion. This timeframe

ensures that the analysis reflects both the historical foundations of contemporary EMS and the reforms that continue to shape EMT practice today.

Limiting the study to the period from the mid-1900s onward allows for a concentrated analysis of the most consequential decades in EMS development, rather than tracing earlier ambulance history that bears limited relevance to modern professional discretion. This period includes landmark U.S. developments such as the 1966 *Accidental Death and Disability* report, federal investments in standardized EMS systems, and subsequent divergence across fire-based, private, and municipal models. For England, the timeframe captures the post-NHS era, the professionalization of paramedicine, nationalization of ambulance trusts, and the introduction of unified clinical governance structures. These milestones anchor the study in the institutional settings where discretion became structured, formalized, and contested. Focusing on this shared period strengthens comparability across the two cases.

Examining this historical window also ensures that the institutional mechanisms relevant to the dissertation's hypotheses—such as professionalization, centralization, decentralization, and market reforms—can be traced in full. Many of the mechanisms predicted by path dependency and varieties-of-capitalism frameworks only became salient once EMS systems adopted formal governance structures and regulatory frameworks in the second half of the twentieth century (Institute of Medicine, 2007; National Research Council, 1966; Wankhade, 2017). By analyzing developments through 2023, the study captures ongoing reforms related to workforce pressures, austerity, managerial oversight, and evolving scope-of-practice policies that continue to shape EMT discretion. This temporal boundary thus reflects both the historical depth and contemporary relevance needed for rigorous causal analysis. It provides a clear and

analytically meaningful timeframe within which institutional sequences and professional role evolution can be systematically reconstructed.

3.2.3. Spatial Scope

The spatial boundaries of the study encompass the United States and England, two cases that meet the baseline criteria of being advanced democracies with professionalized EMS systems. Although they share these broad characteristics, the countries have followed markedly different institutional trajectories in the development and governance of EMS. England is treated as a distinct unit rather than part of the wider United Kingdom because the National Health Service is devolved, and England maintains its own governance and regulatory structures (Greer et al., 2016; UK Parliament, 2023). This ensures that the analysis reflects a coherent and internally consistent institutional environment. Focusing on the United States and England provides sufficient variation to test the hypotheses while maintaining a manageable scope for detailed process-tracing analysis.

These two countries also offer practical advantages for archival research and interpretation. Both have extensive documentation of EMS history, professional standards, and regulatory evolution, allowing for systematic reconstruction of institutional development. English-language sources eliminate the need for translation, reducing the risk of interpretive error and supporting accurate analysis of complex policy materials. The researcher's professional familiarity with EMS systems in both countries further enhances the ability to contextualize institutional and organizational decisions. Together, these factors make the United States and England both analytically and practically suitable for the purposes of this study.

3.2.4. Boundaries of the Study

The study excludes countries beyond the United States and England because expanding the comparative scope would dilute analytic depth and reduce the explanatory power of the mechanism-centered design. The logic of the research requires detailed within-case historical reconstruction, which becomes less feasible as more cases are added. The study also excludes organizational forms that do not follow the dominant institutional lineages relevant to the hypotheses. In particular, hospital-based EMS systems in the United States are not included because they represent a small minority of 911 response agencies and follow a clinical-origin trajectory distinct from the transportation-safety and public-safety models central to EMT development (NHTSA Office of EMS, 2011). Their inclusion would introduce structural variation mismatched to the mechanisms under investigation.

By defining the unit of analysis, clarifying the conceptualization of discretion, and establishing temporal and spatial limits, this section delineates the empirical terrain on which the dissertation's hypotheses are evaluated. These boundaries ensure that the historical sequences, organizational structures, and professional roles examined across the two cases can be compared systematically and meaningfully. They also strengthen the internal coherence of the research design by focusing attention on the institutional pathways most relevant to understanding how professional discretion evolves within EMS systems and providing the foundation for methodologically rigorous analysis in the chapters that follow.

3.3. Case Selection Strategy

With the empirical scope defined, the next step is to identify the cases that provide the strongest leverage for examining how path dependency and market governance shape EMT

discretion. Because the hypotheses center on the mechanisms linking institutional trajectories and market structures to patterns of professional authority, the selected cases must vary in these dimensions in ways that make the underlying processes observable. A theory-driven strategy is therefore used to identify settings where historical sequences, governance arrangements, and market coordination differ in analytically meaningful ways. At the same time, the cases must be sufficiently similar on core attributes to support credible comparison of discretion across EMS systems. This approach ensures that variation in institutional and market conditions, rather than unrelated structural differences, drives the contrasts analyzed in subsequent chapters.

3.3.1. Country-Level Case Selection

Selecting the United States and the United Kingdom as the national cases provides the variation necessary to evaluate how path-dependent trajectories and market governance structures shape EMT discretion. Both countries share the defining features needed for meaningful comparison—advanced democratic systems (Freedom House, 2023), professionalized EMS workforces (National Highway Traffic Safety Administration, 2019; Health and Care Professions Council, 2014), and extensive archival documentation—yet diverge sharply in the historical and market logics underpinning their EMS development (Institute of Medicine, 2007; Wankhade, 2017). These contrasts allow the study to observe whether the proposed mechanisms operate differently across institutional environments while holding broader socioeconomic conditions relatively constant (see George & Bennett, 2005; Hall, 2003; Skocpol & Somers, 1980).

The United States is selected as one of the two national cases because it exemplifies a highly fragmented and market-oriented EMS system (Maguire et al., 2013) whose development reflects a path-dependent trajectory rooted in local governance, mixed service models (Institute

of Medicine, 2007), and decentralized regulatory authority (National Highway Traffic Safety Administration, 2011). The U.S. system evolved through a combination of municipal decisions, fire service influence, competitive contracting, and private-sector participation, all of which created enduring patterns in how EMT roles, responsibilities, and discretion have been structured (Institute of Medicine, 2007; Maguire, O'Neill & O'Neill, 2013; National Highway Traffic Safety Administration, 2011). This environment provides rich variation in organizational arrangements and allows for the observation of how market exposure and local historical pathways shape professional authority. The U.S. case therefore offers strong analytic leverage for evaluating hypotheses concerning both the persistence of early institutional choices and the influence of market governance on discretion. Its internal diversity also enables later within-country comparisons that strengthen the overall design.

The United Kingdom is selected as the second national case because it represents a markedly different institutional and market configuration, offering a clear contrast to the United States while still meeting the criteria of an advanced democracy with a fully professionalized EMS workforce. Since the establishment of the National Health Service, EMS in the UK has developed along a centralized, publicly financed, and clinically governed path that differs substantially from the localized and market-dependent trajectory of the U.S. system (National Audit Office, 2017; Wankhade, 2017). Although health governance is devolved across the UK's constituent nations, the institutional family resemblance within the UK remains strong relative to cross-national variation, making the United Kingdom an appropriate country-level context parallel to the United States.

The United States and United Kingdom, therefore, form a theoretically coherent and empirically productive comparison. Both countries possess mature EMS systems, substantial

documentation of their development, and clear institutional pathways that allow for systematic process tracing. Their divergence in market orientation and historical governance structures creates meaningful variation relevant to the dissertation's hypotheses, while their shared baseline characteristics ensure that differences in discretion cannot be attributed solely to differences in socioeconomic development or state capacity. This pairing thus establishes a foundation capable of revealing how path dependency and market governance shape EMT discretion across distinct but comparable national contexts.

3.3.2. Organizational Case Selection Within Each Country

Within each country, selecting organizational cases is essential for capturing the subnational and system-level variation that shapes how EMT discretion is structured and exercised. EMS systems, particularly in the United States, are not monolithic; they reflect distinct historical pathways, governance arrangements, and degrees of market exposure that create meaningful differences in professional authority (Institute of Medicine, 2007; Maguire, O'Neill & O'Neill, 2013; National Highway Traffic Safety Administration, 2011). Incorporating organizational cases therefore strengthens the analytic design by enabling within-country comparisons that reveal how path dependency and market governance operate at multiple levels of the system. This approach also ensures that the study does not treat national systems as uniform entities but instead examines the institutional diversity that characterizes modern EMS (see O'Hara et al., 2015; Wankhade, 2017). The organizational selections are not intended to represent every EMS configuration but to illustrate theoretically relevant contrasts that enhance the explanatory power of the analysis.

In the United States, organizational cases are selected to reflect the major governance models that have emerged through local historical development and market-oriented decision-

making, including private ambulance contracts, fire-based EMS, municipal third-service systems, and public utility models. These organizations differ in how they structure EMT roles, how much discretion protocols permit, and the degree of managerial or market oversight they impose. By examining organizational units that exemplify these divergent trajectories, the study can observe how historical decisions at the local level continue to shape discretion and how market competition influences professional autonomy. This diversity provides a strong foundation for testing whether the mechanisms proposed by the hypotheses manifest consistently across organizations embedded in different institutional environments. The inclusion of multiple organizational models thus enhances the internal validity of the U.S. case (see George & Bennett, 2005; Gerring, 2007).

In the United Kingdom, England is examined as the subnational case in the same way that specific counties are examined as subnational cases of the United States. Although health governance is devolved within the UK, the institutional family resemblance across its constituent nations remains strong relative to cross-national variation. Focusing on England therefore provides a coherent and bounded case of the United Kingdom, paralleling the treatment of counties as bounded cases within the United States.

Within England, organizational case selection focuses on regional ambulance trusts that operate under a unified national NHS framework but exhibit meaningful internal variation in history, performance, geography, and governance culture (National Audit Office, 2017; Wankhade, 2017). The consolidation of ambulance services into regional trusts, the development of national clinical guidelines, and the integration of EMS within a unified health system have created a distinctive path-dependent environment in which discretion is shaped by specific historical forces and organizational constraints (Joint Royal Colleges Ambulance Liaison

Committee, 2019; National Audit Office, 2017; Wankhade, 2017). Examining England as a case of the United Kingdom allows the study to trace how these national institutional arrangements are expressed and mediated at the organizational level, just as examining counties allows analysis of how U.S. national and state frameworks are expressed locally.

Although all English trusts share the same overarching institutional architecture, differences in regional consolidation patterns, leadership reforms, inspection histories, and population needs create distinct organizational environments that influence EMT discretion (National Audit Office, 2017; Turner et al., 2019; Wankhade, 2017). Selecting trusts that reflect this variation enables the study to observe how a centralized and clinically governed system accommodates or constrains discretion across different local contexts. These contrasts illuminate whether the mechanisms associated with path dependency and organizational structure operate uniformly within England or whether institutional legacies generate meaningful subnational variation inside a nationally standardized system.

The organizational cases selected from the United States and England, then, create a multi-level design that captures variation both within and across institutional settings while maintaining symmetry at each level of analysis. Counties function as cases of the United States; England functions as a case of the United Kingdom; and ambulance organizations function as cases within those subnational systems. This structure allows the study to test whether the proposed mechanisms operate consistently at different institutional scales and whether organizational context moderates the influence of path-dependent histories or market governance (see George & Bennett, 2005; Mahoney & Thelen, 2015; Skocpol & Somers, 1980). By grounding the analysis in specific EMS organizations, the study connects historical institutional pathways to the everyday professional environments in which EMTs exercise discretion (see

George & Bennett, 2005; Mahoney & Thelen, 2010/2015). This multi-level approach strengthens the empirical foundation of the dissertation and supports a more nuanced evaluation of the mechanisms shaping professional autonomy in EMS systems.

3.3.3. Exclusion Criteria

Defining which cases fall outside the scope of this study is as important as identifying those that are included, particularly given the multi-level design outlined above. Because the analytic strategy depends on tracing how path-dependent trajectories and market governance shape EMT discretion, the study must remain focused on cases that meaningfully reflect these dynamics. Establishing exclusion criteria therefore helps maintain conceptual coherence, ensures that comparisons rest on theoretically relevant variation, and prevents the introduction of structural differences that could obscure the operation of the mechanisms under investigation (see George & Bennett, 2005; Gerring, 2007; Sartori, 1970). This deliberate narrowing of the empirical field strengthens the internal logic of the research design and preserves the clarity needed for effective process tracing (Beach & Pedersen, 2019; George & Bennett, 2005; Gerring, 2007).

At the national level, the study excludes additional countries beyond the United States and England. While many countries maintain advanced EMS systems, incorporating more cases would shift the design toward a broader cross-national comparison at the expense of the depth required for mechanism-centered analysis. Additional countries would also introduce variation in state capacity, health system architecture, or regulatory frameworks that are unrelated to the hypotheses and would complicate causal inference. By limiting the analysis to two carefully selected national contexts, the study prioritizes analytic precision over breadth (see George &

Bennett, 2005; Lijphart, 1971; Tarrow, 2010). This choice aligns with the methodological commitment to reconstructing detailed historical and organizational trajectories within each case.

At the organizational level, the study excludes EMS models that do not align with the dominant historical and institutional pathways shaping frontline EMT roles. In the United States, hospital-based EMS systems are excluded because they represent a small minority of emergency response providers and emerge from a clinical lineage distinct from the public-safety and transport-based origins that define mainstream EMS development (NHTSA Office of EMS, 2011). Their governance structures, professional hierarchies, and historical trajectories differ in ways that would confound rather than clarify the mechanisms under study (see George & Bennett, 2005; Gerring, 2007; Institute of Medicine, 2007; Maguire, O'Neill & O'Neill, 2013). Similar reasoning applies to the exclusion of non-emergency transport services, air ambulance programs, and community paramedicine initiatives, which operate under distinct missions and regulatory environments (Gerring, 2007; George & Bennett, 2005; Institute of Medicine, 2007; National Association of State EMS Officials, 2015; U.S. Government Accountability Office, 2010). These organizations involve different forms of discretion shaped by their unique operational goals rather than by the institutional or market structures central to the dissertation's hypotheses.

By clearly delineating what is excluded, the study ensures that the selected cases reflect comparable institutional histories and face similar operational demands, thereby maintaining analytic focus. These exclusions help confine the empirical universe to the organizations where path dependency and market governance are most directly implicated in shaping EMT discretion. In doing so, the study safeguards the internal consistency of the case study design and provides a coherent foundation for the process-tracing analyses that follow.

3.4. Data Sources and Data Collection

This study relies exclusively on archival documentary sources, which provide the historical depth and empirical detail necessary for tracing how EMT discretion evolved within and across the United States and England. Archival data are particularly well suited for evaluating the dissertation's hypotheses, as they capture policy developments, organizational decisions, regulatory changes, and shifts in professional practice over time (George & Bennett, 2005; Mahoney & Thelen, 2015; Yin, 2014). These materials allow for the reconstruction of long-term institutional sequences (Mahoney, 2000) and provide insight into how both countries' EMS systems responded to evolving clinical, political, and economic pressures. Unlike interview or survey data, archival sources offer contemporaneous accounts of decision-making processes, reducing the risks associated with retrospective recall (Collier, 2011; George & Bennett, 2005; Tansey, 2007). Their breadth and historical continuity make them indispensable for identifying the mechanisms associated with path dependency and market governance (Mahoney, 2000; Pierson, 2004).

3.4.1. Types of Archival Sources

The primary data sources include government reports, statutes and regulations, professional standards and guidance, organizational documents, and historical analyses produced by scholars and practitioners. Government reports—such as inquiries, evaluations, oversight documents, and strategic plans—provide insight into how national and subnational authorities understood EMS challenges and defined EMT roles at different points in time. Statutes and regulations reveal the legal and formal organizational rules that shaped training requirements, scope of practice, and the distribution of authority across actors and institutions. Professional

bodies and clinical governance organizations, including those responsible for protocol development, offer guidelines that delineate the boundaries of clinical discretion and reflect broader trends in professionalization. These sources collectively provide a multifaceted picture of how discretion has been formally structured.

Organizational documents serve as a second major source of empirical material and include annual reports, strategic plans, protocol manuals, operational audits, and performance evaluations issued by EMS agencies and ambulance trusts. These documents illuminate how organizations interpreted national directives, operationalized clinical expectations, and developed internal cultures that reinforced or constrained discretion. They also provide evidence of how local historical pathways and market structures shaped decision-making authority within each organization. In some cases, inspection reports from oversight bodies, such as the Care Quality Commission in England, further reveal how external accountability mechanisms influenced organizational governance and practice. Taken together, these materials support detailed within-case analysis of how EMT discretion has been shaped at the organizational level.

Historical scholarship and secondary literature provide additional context that helps situate EMS developments within broader political and institutional transformations. Academic works by medical historians, policy analysts, and scholars of professionalization shed light on the antecedents of EMS reforms and the social, political, and technological forces that contributed to system evolution. These sources help identify critical junctures, shifts in professional identity, and long-term trends that may not be fully documented in official records. While secondary sources are not used as primary evidence for evaluating the hypotheses, they play a crucial role in contextualizing archival documents and informing the process-tracing

analysis. Their inclusion strengthens the historical rigor of the study (see Collier, 2011; Mahoney & Thelen, 2015).

3.4.2. Data Collection Procedures

Data collection follows a systematic, multi-stage process designed to ensure comprehensive coverage of the historical and organizational developments relevant to EMT discretion. The first stage involves identifying and gathering national-level documents such as legislation, regulatory changes, national reviews, and government-issued inquiries, that define the institutional environment within which EMS systems evolved. These materials establish the broader policy and governance context necessary for tracing each country's path-dependent trajectory (see Collier, 2011; Mahoney, 2000). By beginning at the national level, the study creates the foundation for understanding how discretion was formally structured and how market and governance reforms were introduced. This step also identifies key turning points and institutional changes that guided subsequent organizational development.

The second stage focuses on collecting organizational-level documents from selected EMS agencies and ambulance trusts. These materials are sourced from publicly accessible archives, organizational websites, oversight bodies, and repositories that maintain historical documents. The researcher systematically searched for materials related to staffing models, clinical protocols, training requirements, operational reforms, and performance evaluations. Collecting documents across multiple decades allows the study to examine how organizational decisions responded to national reforms and how local histories shaped the specific forms of discretion observed. This level of detail provides essential evidence for testing whether organizational structures reinforced, modified, or diverged from national institutional trajectories.

The final stage involves organizing all collected materials into a structured database that categorizes documents by country, organization, time period, and relevance to specific hypotheses. This enables efficient cross-referencing of evidence during the process-tracing analysis and facilitates the identification of patterns across sources. The researcher recorded metadata for each document, including date, origin, purpose, and key themes, to support transparency and replicability. This systematic approach ensures that the evaluation of evidence is grounded in a comprehensive and well-curated empirical base (Beach & Pedersen, 2019; Yin, 2014). By employing meticulous data management procedures, the study maintains methodological rigor and coherence throughout the analytical process (Beach & Pedersen, 2019; Yin, 2014).

3.4.3. Alignment With the Analytic Strategy

The data collection strategy is designed to align directly with the process-tracing approach described in the section that follows. Archival documents provide the type of diagnostic evidence needed to evaluate whether the mechanisms predicted by path dependency and market governance were present, absent, or interacted in the ways hypothesized. They also allow for the identification of competing explanations, institutional variations, and organizational decisions that may influence professional discretion. Because the documentary record spans multiple decades and captures decisions made at both national and organizational levels, it provides the temporal depth necessary to reconstruct causal sequences. In this way, the data sources and collection procedures form an empirical foundation that supports rigorous testing of the dissertation's hypotheses.

3.5. Data Analysis: Process Tracing

Process tracing provides the analytic approach for evaluating how path-dependent trajectories and market governance structures shaped EMT discretion in the United States and England. Because the hypotheses concern the processes through which early decisions, organizational choices, and governance arrangements influenced the evolution of professional authority, a method capable of reconstructing sequences of events is required. Process tracing is well suited to this task, as it enables the identification of causal mechanisms that operated over time, as well as the assessment of when and how those mechanisms influenced discretion (Beach & Pedersen, 2019; Bennett & Checkel, 2015). This approach makes it possible to examine whether the patterns predicted by H1, H2, and H3 emerged in ways consistent with their underlying logic. By following the chain of decisions and changes documented in archival sources, the method anchors causal inference in observable evidence rather than abstract assumptions (George & Bennett, 2005).

The analysis evaluates each hypothesis by identifying the activation, reinforcement, or modification of specific mechanisms associated with path dependency and market exposure. For H1, the study examines whether early decisions regarding EMS governance, role definitions, training requirements, or scope of practice created persistent patterns that later developments built upon rather than replaced. Evidence of reinforcement—such as repeated reliance on particular delivery models, durable professional hierarchies, or continued adherence to earlier regulatory choices—indicates that a path-dependent mechanism was shaping discretion. For H2, the analysis assesses how exposure to market forces, including competitive contracting, private-sector participation, centralized or decentralized procurement, and financial incentives, altered EMT authority or constrained clinical and operational judgment. H3 is evaluated by determining

whether market effects differed depending on the earlier trajectory each system followed, revealing whether path dependency conditioned the influence of market governance. Together, these analyses establish whether the predicted mechanisms operated as theorized.

To systematically evaluate the strength of evidence, the study employs commonly used process-tracing diagnostic tests. Straw-in-the-wind tests provide preliminary or suggestive indications that a mechanism may be present, but they are not decisive on their own (Beach & Pedersen, 2019). Hoop tests identify evidence that must be present for a hypothesis to remain viable; failing a hoop test excludes a hypothesis from further consideration (Beach & Pedersen, 2019). Smoking-gun tests supply stronger confirmation when present, as they offer compelling evidence that a mechanism was operating in a particular direction (Beach & Pedersen, 2019). Doubly decisive tests provide both necessary and sufficient evidence for a causal claim, although such tests are rare in complex historical settings (Beach & Pedersen, 2019). The use of these diagnostic categories ensures that assessments of support for each hypothesis are transparent and consistent (Beach & Pedersen, 2019).

Analytically, the study proceeds by first organizing archival documents into chronological sequences to map how key decisions unfolded over time. These sequences are then examined for evidence that early choices produced self-reinforcing patterns, constrained later options, or shaped the evolution of organizational practices, all indicators relevant to path dependency. Similarly, the analysis identifies how market structures influenced discretion by tracing the introduction of competitive contracting, managerial reforms, workforce restructuring, or financial pressures and examining their effects on EMT autonomy. At each step, the evidence is compared against the expectations of H1, H2, and H3 to determine whether the mechanisms predicted by the hypotheses were activated and whether they influenced discretion as theorized.

This careful alignment of empirical evidence with mechanism-based expectations strengthens the validity of the study's conclusions.

The analysis also explicitly considers alternative explanations to ensure that claims about path dependency and market governance are not overstated. Potential alternatives include changes in clinical knowledge, technological advancements, demographic pressures, political interventions, or isolated organizational reforms unrelated to long-term trajectories or market structures. These possibilities are evaluated using the same diagnostic framework to assess whether they provide a more compelling explanation for observed changes in discretion. By systematically addressing these alternatives, the study ensures that the conclusions drawn reflect the weight of the empirical evidence rather than assumptions about which factors mattered most (Bennett & Checkel, 2015; Collier, 2011). This disciplined approach to causal inference allows process tracing to illuminate not only whether path dependency and market governance shaped EMT discretion, but also how and why their effects emerged in each case (Beach & Pedersen, 2019).

3.6. Ethical Considerations

Because this study relies exclusively on archival and publicly available documentary sources, it does not involve human subjects and therefore does not raise concerns typically associated with participant recruitment, informed consent, or confidentiality. Nonetheless, ethical considerations remain relevant to how the researcher interprets historical materials and represents the development of EMS systems over time. Archival records may reflect the perspectives and priorities of institutions with varying degrees of transparency, and the analysis requires careful attention to the context in which documents were produced (Bowen, 2009; Hill, 1993). Recognizing these dynamics helps ensure that interpretations remain grounded, balanced,

and faithful to the documentary record (Scott, 1990). The study is designed to minimize the risk of misrepresenting organizations or attributing motives that cannot be substantiated by evidence.

An additional ethical consideration stems from the researcher's prior professional experience in EMS in both the United States and England. Familiarity with clinical practices and organizational environments can be beneficial for interpreting complex documents, but it also introduces the possibility of unintentional bias in evaluating evidence or framing conclusions (Malterud, 2001; Maxwell, 2013). To mitigate this risk, the researcher adopts a reflexive approach, maintaining a record throughout the research process that documents assumptions, emerging interpretations, and potential points where personal experience may influence analysis. This reflexive practice helps ensure that the evaluation of documentary evidence remains grounded in the data rather than informed by prior professional norms or expectations (Finlay, 2002; Malterud, 2001). By explicitly accounting for the researcher's positionality, the study enhances the credibility and transparency of its analytic findings.

Finally, the study takes care to represent EMS organizations and governance structures fairly and accurately, avoiding evaluative judgments that extend beyond the scope of the evidence. Archival materials may describe performance challenges, policy failures, or organizational shortcomings, but these accounts are analyzed in relation to the dissertation's theoretical aims rather than used to critique individual actors or agencies. The goal is to understand how path-dependent trajectories and market governance shaped EMT discretion, not to evaluate or rank EMS systems. By keeping the analytic focus on causal mechanisms rather than normative assessments, the study maintains an ethical boundary between scholarly explanation and organizational evaluation (Scott, 1990; Yin, 2014). This approach ensures that

the research is both respectful of the organizations represented and aligned with professional standards for historical and documentary analysis.

3.7. Limitations

The case study design employed in this dissertation prioritizes causal depth and historical reconstruction over breadth. By structuring the analysis around two national cases with embedded organizational units, the study maximizes leverage for within-case process tracing and mechanism testing. This design choice strengthens internal validity but necessarily constrains the scope of generalization. The findings should therefore be understood as analytically generalizable to institutional contexts that share similar characteristics—advanced democratic governance, professionalized EMS systems, and documented regulatory development—rather than as universally applicable across all emergency medical systems. The design seeks explanatory leverage rather than representativeness. Expanding the number of cases could increase external validity but would dilute the capacity to reconstruct formative institutional sequences and reinforcement processes in sufficient depth to test the proposed mechanisms rigorously.

The evidentiary base further reflects this tradeoff. The analysis relies on archival and documentary materials, including national curricula, regulatory texts, reimbursement rules, professional association statements, and organizational documentation. These sources are well suited to tracing institutional development and identifying the formal structures that authorize and constrain professional discretion. However, documentary evidence captures institutional architecture more readily than it captures informal practices, tacit norms, or situational improvisation. Discretion is conceptualized in this study as institutionally structured authority rather than as subjective experience; accordingly, the analysis foregrounds formal scope-of-

practice rules, oversight arrangements, and financial incentives. This conceptual focus strengthens coherence but does not exhaust all possible dimensions of discretionary behavior. Future research incorporating interviews or observational data could complement these findings by examining how practitioners interpret and navigate the structural constraints identified here.

Causal inference in mechanism-centered research is necessarily probabilistic rather than experimental. Process tracing enables the identification of sequences, reinforcement dynamics, and observable implications consistent with path dependency and market governance mechanisms. The use of diagnostic tests—smoking-gun, hoop, and straw-in-the-wind—provides structured criteria for evaluating evidentiary strength. Nevertheless, complex institutional systems often contain overlapping processes that are not fully isolable. Liability environments, organizational cultures, clinical complexity, and market incentives interact with historical legacies in ways that resist complete disentanglement. The conclusions therefore rest on comparative explanatory weight and evidentiary coherence rather than on causal exclusivity. The argument is that path dependency and market governance provide the most comprehensive account of observed patterns, not that alternative mechanisms are absent.

Temporal boundaries also condition the analysis. The study reconstructs EMS development from its formative federal placement through contemporary reform efforts. While this periodization captures the key stages of design, reinforcement, and institutional lock-in, recent reforms—such as expanded treat-in-place reimbursement models—remain in early phases of implementation. The durability of these reforms cannot yet be fully assessed. Similarly, earlier antecedents predating modern federal involvement are treated only insofar as they inform the institutional breakpoints central to the hypotheses. The findings therefore apply to the

contemporary institutional architecture of EMS and its documented historical trajectory, rather than to future configurations that may emerge under sustained reform.

Finally, the embedded organizational selection enhances analytic leverage but does not claim exhaustive coverage of all EMS variants. Within each national case, organizations were selected to reflect theoretically salient governance models rather than to represent the full universe of configurations. This purposive strategy strengthens internal validity by illustrating how national institutional logics manifest at the organizational level. At the same time, it limits claims about statistical representativeness. The objective is to demonstrate mechanism operation across diverse but theoretically relevant settings, not to estimate population-level frequencies.

Taken together, these limitations define the study's scope conditions. The design privileges explanatory depth, institutional reconstruction, and mechanism testing within bounded cases. It does not claim universal generalizability, experimental causal isolation, or comprehensive capture of informal practice. Within these constraints, however, the research provides a rigorous and internally coherent account of how institutional development and governance structures shape the boundaries of EMT discretion.

3.8. Chapter Conclusion

This chapter has outlined the methodological foundation for examining how path dependency and market governance shape EMT discretion in the United States and England. It established the unit of analysis, clarified the conceptualization of discretion, and identified the temporal and spatial boundaries that frame the scope of inquiry. The case selection strategy detailed the rationale for selecting two national contexts and corresponding organizational cases that offer meaningful variation in historical trajectories and market structures. The data sources and collection procedures described how archival materials will be assembled and organized to

support a rigorous examination of long-term developments in EMS. Together, these elements create a coherent empirical framework for evaluating the dissertation's hypotheses.

The chapter also explained why process tracing provides the most appropriate analytic strategy for identifying the mechanisms through which early decisions, organizational structures, and market arrangements shaped the evolution of professional authority. By emphasizing sequential analysis, diagnostic evidence tests, and explicit consideration of alternative explanations, the method enables careful assessment of whether the mechanisms predicted by H1, H2, and H3 were activated in each context. Ethical considerations were addressed to ensure transparency, mitigate potential bias, and maintain fidelity to the documentary record. The methodological choices described in this chapter collectively support a robust, mechanism-centered evaluation of how discretion emerged and changed within two distinct EMS systems. With this foundation in place, the following chapters turn to the empirical analysis of the United States and England, tracing the processes through which EMT discretion developed over time.

Chapter 4 US Empirical Chapter

4.1. Vignette

It starts with a moment of uncertainty. A woman in her kitchen pauses, her hand pressed against the counter as a wave of dizziness sweeps over her. Her husband notices the change in her face and reaches for his phone. The moment he presses 9-1-1, the entire system comes alive.

The call is routed through a regional dispatch center, where a call-taker answers within seconds. The dispatcher's questions come quickly and clearly: "Tell me exactly what happened. Is she awake? Is she breathing normally?" As the husband responds, the information is entered into a computerized triage system that determines which agencies will be sent. In much of the United States, dialing 9-1-1 does not automatically summon a single, unified emergency service. Depending on the answers provided and local policy, dispatch may send a fire-based EMS unit, a municipal ambulance, a private ambulance contractor, police officers, or some combination of these. In many jurisdictions, law enforcement is dispatched to medical calls to secure the scene or assist, and it is not uncommon for police or fire personnel to arrive before the transporting ambulance. The caller does not select which service responds; that decision is embedded in local governance structures, dispatch algorithms, and contractual arrangements.

Across town, radios activate. At a nearby fire station, paramedics stop what they are doing and move with practiced speed. In other areas, the first vehicle en route might be a patrol car, lights flashing, or a privately operated ambulance staffed by EMTs. The composition of the

response reflects local history and organizational design rather than the caller's request. Sirens rise as units turn onto the main road. Traffic parts in front of them.

Back at the house, the dispatcher stays on the line until responders arrive, offering calm instructions. The woman sinks slowly to the floor, frightened but still conscious. A police officer may reach the door first, ensuring the scene is safe. Moments later, EMS clinicians—whether employed by a fire department, a municipal third-service agency, or a private firm—kneel beside her and begin their assessment. They check her pulse, apply oxygen, attach monitors. One takes a brief history while the other scans her vital signs. Their movements are efficient and coordinated, but structured by protocols and supervisory expectations that shape how decisions are made.

After a rapid assessment, they lift her gently onto a stretcher and wheel her to the ambulance. The back doors close and the vehicle disappears down the street, heading toward the nearest hospital capable of handling her symptoms.

Scenes like this unfold every day across the United States. Yet the configuration of responders—police, fire, private ambulance, municipal EMS—varies by locality, reflecting decades of institutional development and market governance choices. The decisions made by frontline EMS clinicians do not occur in a unified national system but within a fragmented landscape in which dispatch rules, contractual arrangements, and organizational histories determine who responds and how authority is structured. This chapter examines those structures and traces how they collectively shape the discretionary space available to EMTs and paramedics, linking the human moment in the vignette to the broader institutional forces that influence frontline action.

4.2. Introduction

This chapter contributes to the broader dissertation by examining how professional discretion in the United States EMS system is produced, constrained, and patterned by identifiable institutional forces. The dissertation argues that discretion is not simply an individual-level attribute but an outcome shaped by structural conditions, and this chapter empirically tests that claim. By tracing how the past, the contemporary organizational environment, and the interaction between the two influence decision-making, the chapter offers a systematic analysis of the sources of variation in frontline autonomy. In doing so, it links the dissertation's theoretical framework to concrete empirical processes operating within a nationally significant public service.

The purpose of the chapter is to identify and evaluate the causal pathways through which EMS provider discretion emerges. To accomplish this, the chapter employs process tracing to reconstruct institutional sequences, assess the influence of contemporary market structures, and determine whether historical trajectories modify present-day effects. This multi-layered approach allows the chapter to examine both stability and change in the forces shaping clinical, operational, and ethical decision-making. The underlying argument is that discretion in EMS is structured rather than incidental and reflects the interplay of path-dependent legacies and current political–economic arrangements.

The chapter fulfills this purpose through three linked analyses. The first examines whether the present configuration of provider discretion reflects outcomes rooted in formative decisions about EMS design. The second assesses whether market structure produces systematic variation in discretion across organizational models. The third investigates whether historical trajectories condition the influence that market structures exert today. Together, these analyses

map the institutional determinants of EMS discretion and clarify how they contribute to uneven patterns of autonomy across the system.

4.3. H1 Analysis: How Path Dependency Influences Discretion

H1 asks whether path dependency influences professionals' level of discretion, proposing that contemporary patterns of EMT and paramedic autonomy largely reflect formative institutional decisions rather than current administrative or clinical conditions. This section evaluates that claim by examining how early federal choices created durable structural boundaries that continue to shape frontline judgment. I argue that the remarkable stability of EMT role definitions across states and decades, even amid technological, clinical, and organizational change, suggests the enduring influence of these early decisions. The analysis therefore reconstructs how EMS's placement under the Department of Transportation established a technician-oriented model of practice, how national curricula and oversight rules reinforced this orientation, and how these constraints became self-reinforcing over time. By drawing on evidence that early federal assumptions shaped training standards, scope-of-practice rules, and physician-directed oversight**,** H1 assesses whether the institutional architecture built during EMS's formative decades continues to define the limits of discretion today.

4.3.1. Early Federal Design

The origins of the United States EMS system reveal an institutional trajectory that continues to structure provider discretion today. During the late 1960s and early 1970s, EMS was placed under the authority of the Department of Transportation (DOT), an assignment that framed prehospital care as a transportation-safety function rather than a component of the healthcare system (Institute of Medicine, 2007; Shah, 2006; United States Department of

Transportation, National Highway Traffic Safety Administration, 1969). This administrative location shaped the foundational expectations, training models, and operational logic that guided the system's early development (Brooks, Sayre, Spencer, & Archer, 2016; National Academy of Sciences & National Research Council, 1966; United States Department of Transportation, National Highway Traffic Safety Administration, 1996). Data suggest that rather than cultivating a clinical profession characterized by diagnostic reasoning and autonomous judgment, early federal efforts emphasized the rapid and standardized movement of patients from the scene to the hospital.

Results further suggest that the first national training curricula produced under DOT and later NHTSA further embedded this transportation-oriented identity. These documents presented prehospital care through a technical lens that stressed task execution, procedural conformity, and adherence to pre-scripted interventions (Brooks et al., 2016; United States Department of Transportation, National Highway Traffic Safety Administration, 1977, 1984). For example, the original EMT-A curriculum required providers to perform only those interventions explicitly outlined in the national standard, crystallizing the technician role definition (Brooks et al., 2016; United States Department of Transportation, National Highway Traffic Safety Administration, 1977). This orientation appears to have produced a model of EMS practice in which frontline personnel were expected to follow predetermined algorithms rather than exercise substantial clinical discretion.

Analysis indicate that the early curricula also encoded expectations about the relationship between EMTs and physicians. Rather than conceptualizing EMTs as independent clinicians, the training materials positioned them as operational extensions of medical authority, operating under strict oversight and direction (Brooks et al., 2016; United States Fire Administration, 2012;

United States Department of Transportation, National Highway Traffic Safety Administration, 1977). This reinforced a structural hierarchy in which discretion was not distributed evenly across professional roles (American College of Emergency Physicians, 2017; Baker, 2022; Shah, 2006). As later reinforced in state medical direction laws (see Baker, 2022; United States Fire Administration, 2012; Washington State Department of Health, 2017), EMTs were required to consult physicians for deviations from protocol, reflecting the enduring imprint of early federal assumptions American College of Emergency Physicians, 2017; Baker, 2022; United States Department of Transportation, National Highway Traffic Safety Administration, 2007/2019**.**

Data suggest that the DOT-era design also influenced the scope of practice of early EMS providers. The National Highway Safety Bureau's standards restricted EMTs to a narrow set of allowable interventions, and even paramedic-level providers were required to demonstrate compliance with rigid clinical algorithms (Brooks et al., 2016; United States Department of Transportation, National Highway Traffic Safety Administration, 1977, 1984). These initial constraints appear to have shaped the contours of EMS authority and responsibility long before contemporary debates over professional autonomy emerged. The result was a system that privileged predictability over flexibility and standardization over discretionary judgment (Brooks et al., 2016; Institute of Medicine, 2007; Shah, 2006).

Finally, the early placement of EMS within a transportation agency appears to have created institutional incentives that shaped later policy decisions. Because EMS was tied to the logic of highway safety, federal investments emphasized vehicle design, communications systems, and response times, factors aligned with operational efficiency rather than clinical autonomy (Institute of Medicine, 2007; Shah, 2006; United States Department of Transportation, National Highway Traffic Safety Administration, 1969). This alignment is echoed decades later

when agencies describe EMS as “primarily a transport function,” a characterization still visible in federal reimbursement discussions and CMS advisory materials (Centers for Medicare & Medicaid Services, 2023; National EMS Advisory Council, 2019; Ostlie, 2021). These choices appear to have collectively established the foundation on which later institutional structures and expectations were built.

4.3.2. Reinforcement Period

An analysis of data indicates that the initial institutional design of EMS did not remain static; instead, it was reinforced through a series of decisions and developments that deepened the early technician-oriented model. After the initial federal investment of the 1970s, NHTSA continued to update national standard curricula even as direct federal funding declined (Brooks et al., 2016; Institute of Medicine, 2007; United States Department of Transportation, National Highway Traffic Safety Administration, 1996). This ongoing curricular control appears to have ensured that states adopted training materials that echoed the original assumptions, particularly the emphasis on algorithmic care, narrow clinical authority, and strict adherence to prescribed procedures (Brooks et al., 2016; United States Department of Transportation, National Highway Traffic Safety Administration, 2009). These reinforcements extended the influence of early federal design far beyond the period in which Washington played an active funding or administrative role.

State-level adoption of NHTSA-derived curricula seems to have solidified this model by embedding it in regulatory structures across the country (see National Association of State EMS Officials, 2021; United States Department of Transportation, National Highway Traffic Safety Administration et al., 2007/2019). States not only incorporated national training standards into their certification pathways but also built them into scope-of-practice rules and recertification

processes (see National Association of State EMS Officials, 2021; New York State Department of Health, 2010; United States Department of Transportation, National Highway Traffic Safety Administration et al., 2007/2019). This meant that even as the EMS system diversified organizationally, through the growth of private firms, fire-based expansion, hospital-based programs, and independent municipal services, the foundational assumptions about EMS work remained consistent. For example, states continued to define EMTs as providers who perform interventions within a limited and specified scope replicating the narrow boundaries introduced during the early federal design period (see National Association of State EMS Officials, 2021; United States Department of Transportation, National Highway Traffic Safety Administration et al., 2007/2019). These regulatory decisions appear to have reinforced the expectation that EMT discretion would remain tightly bounded.

Professional socialization also appears to have contributed to the reinforcement of limited discretion. Training programs continued to teach EMTs and paramedics to prioritize protocol adherence, rapid transport, and procedural consistency (Brooks et al., 2016; United States Department of Transportation, National Highway Traffic Safety Administration, 2009). These educational norms shaped how providers interpreted their roles, how they responded to uncertainty, and how they understood their authority relative to supervisors and medical directors (Baker, 2022; United States Fire Administration, 2012). As many agencies explicitly note, deviations from protocol require supervisory or physician approval, reflecting the enduring legacy of early oversight structures (see American College of Emergency Physicians, 2017; Baker, 2022; Washington State Department of Health, 2017). It may be argued, then, that it is through this process that professional identity became aligned with the structural and regulatory constraints defined decades earlier.

Results indicate that organizational expansion within the fire service further reinforced the initial model (National Volunteer Fire Council, 2017). As fire departments assumed responsibility for EMS delivery across major metropolitan areas, they imported hierarchical, command-driven norms that aligned with the technician-oriented role (FireEMSLeaderPro, 2013; JEMS, 2024; National Volunteer Fire Council, 2017). Fire-based EMS emphasized chain-of-command discipline, risk management, and procedural uniformity, all of which further curtailed frontline autonomy (JEMS, 2024). Data suggest that fire-based EMS systems such as Seattle appear to consistently exhibit patterns of conservative judgment, strict protocol alignment, and supervisory consultation, even in ambiguous cases, demonstrating how early assumptions were replicated within large operational systems (see Public Health – Seattle & King County, 2019, 2024, 2025). This alignment between organizational culture and early federal design seems to have ensured that discretion remained narrow in many regions.

Finally, financial and administrative decisions taken during the reinforcement period appear to have amplified the original trajectory. The Medicare reimbursement model adopted EMS as a transportation benefit rather than a healthcare service (Centers for Medicare & Medicaid Services, 2023; National EMS Advisory Council, 2019), directly reflecting EMS's institutional origins. This decision created economic incentives that reinforced the transport-centric role defined in the early federal period (Centers for Medicare & Medicaid Services, 2019; Institute of Medicine, 2007; Shah, 2006). Decades later, CMS explicitly acknowledged that its transport-only payment system was an artifact of EMS's historical development (Centers for Medicare & Medicaid Services, 2019; National EMS Advisory Council, 2019), constraining innovation and limiting treat-in-place discretion**.** The survival of these payment rules illustrates how historical decisions continued to shape the incentives that structure frontline behavior.

Together, these reinforcing mechanisms created a durable institutional architecture that preserved early constraints on discretion. Even as EMS systems expanded, diversified, and professionalized, the foundational logic established during federal formation remained embedded in training, regulation, organizational culture, and financial incentives (Brooks et al., 2016; Institute of Medicine, 2007; Shah, 2006). The endurance of these institutional features provides strong support for the path-dependent claim that early design choices continue to shape contemporary patterns of EMT autonomy.

4.3.3. Institutional Lock-In

The combination of early federal design choices and subsequent reinforcement processes appears to have generated a self-reinforcing institutional architecture that continues to restrict EMS provider discretion. I argue that the initial assumptions about EMS as a transportation-safety function became embedded in training standards, scope-of-practice rules, reimbursement models, and organizational cultures, results suggest that they created increasing returns dynamics that made alternative models more difficult to adopt (Brooks et al., 2016; Institute of Medicine, 2007; National EMS Advisory Council, 2019). Results indicate that states and agencies relied heavily on NHTSA curricula and DOT-era protocols because they offered ready-made guidance, reduced liability exposure, and aligned smoothly with existing regulatory expectations (Brooks et al., 2016; United States Department of Transportation, National Highway Traffic Safety Administration, 1977, 1984, 2009). This appears to have produced a positive feedback loop through which the original technician-oriented model became increasingly entrenched.

Multiple institutional features illustrate this lock-in process. Source documents indicate that training programs across the country continued to teach the same core assumptions, ensuring that each successive cohort of EMTs was socialized into a narrow view of their professional role

(Brooks et al., 2016; United States Department of Transportation, National Highway Traffic Safety Administration, 2009). Likewise, certification and licensure systems, which incorporated NHTSA-derived competencies, have created regulatory incentives to maintain continuity rather than introduce new forms of clinical reasoning or autonomy (National Association of State EMS Officials, 2021; United States Department of Transportation, National Highway Traffic Safety Administration et al., 2007/2019). For instance, even decades after EMS's relocation from DOT's direct oversight, states continued to describe EMTs as performing "specified skills within a limited scope," a phrasing drawn directly from national standard materials (see National Association of State EMS Officials, 2021; United States Department of Transportation, National Highway Traffic Safety Administration et al., 2007/2019). This continued reliance on centralized curricular authority appears to have reinforced the original path.

Organizational practices appear to have further strengthened this institutional logic. Fire-based systems in particular reproduced hierarchical command structures that aligned with limited autonomy (see JEMS, 2024; National Volunteer Fire Council, 2017), but even private and hospital-based systems retained strong protocol-dependence rooted in early EMS expectations (see Baker, 2022; Institute of Medicine, 2007). Agencies that attempted to expand autonomy often encountered structural barriers: liability concerns tied to state-defined scopes of practice, medical director caution shaped by long-standing norms, and administrative metrics emphasizing response times over clinical decision-making (Baker, 2022; United States Fire Administration, 2012). Seattle's BLS tier provides a clear example: despite operating in a medically sophisticated region with strong physician oversight, BLS providers consistently follow strict protocol pathways and escalate uncertainties upward, reflecting the influence of fire-service organizational culture layered onto national EMS norms (see Public Health – Seattle & King

County, 2019, 2025; Washington State Department of Health, 2017). Such examples demonstrate how institutional legacies persist even within evolving system contexts.

An analysis of data further suggests that financial arrangements introduced during the formative period also reinforced the original model. Medicare's decision to treat EMS as a transportation benefit created long-term payment structures that revolved around transport volume rather than clinical intervention (see Centers for Medicare & Medicaid Services, 2023; National EMS Advisory Council, 2019). This appears to have incentivized agencies nationwide to maintain a transport-centric approach and discouraged alternatives like treat-in-place or community paramedicine (Centers for Medicare & Medicaid Services, 2019). CMS later acknowledged that this payment structure was an artifact of EMS's history that restricted innovation and constrained frontline discretion (Centers for Medicare & Medicaid Services, 2019; National EMS Advisory Council, 2019). Results indicate, then, that by embedding transportation into the financial core of EMS operations, then, federal reimbursement policy locked in the assumptions of the 1970s and limited the viability of structural alternatives.

The findings illuminated above indicate that the interaction of these forces, training, regulation, professional socialization, organizational culture, and financial incentives, produced an institutional environment with strong resistance to change. Moreover, attempts to expand EMS roles repeatedly encountered structural boundaries that were not easy to modify (Baker, 2022; Institute of Medicine, 2007; Shah, 2006). Findings further suggest that innovations such as alternative destination transport, expanded on-scene clinical assessment, or treat-and-release models faced difficulties not simply because of operational or policy hurdles, but because they conflicted with deeply anchored expectations about what EMS is and what EMS providers are authorized to do (Institute of Medicine, 2007; United States Department of Transportation,

National Highway Traffic Safety Administration, 1996). Programs like community paramedicine often stalled in early implementation phases when EMT discretion proved too limited to support new clinical tasks (see Centers for Disease Control and Prevention, 2024; Rural Health Information Hub, 2020; Shannon et al., 2022), revealing the inertia created by decades of institutional path dependency.

The cumulative effect of these mechanisms may then be identified as a system in which the early definition of EMS continues to dominate contemporary understandings of appropriate practice. Results outlined above suggest that even when agencies seek to innovate or adapt to changing demands, the structural and regulatory environment makes substantial shifts in discretion difficult (Institute of Medicine, 2007; National EMS Advisory Council, 2019; Shah, 2006). Institutional lock-in thus helps explain why EMS autonomy remains narrowly defined even in the face of new clinical technologies, evidence-based treatment paradigms, and proposals for expanded prehospital roles. The persistence of these constraints supports H1's central claim that discretion in EMS today reflects a historical trajectory that continues to shape the boundaries of professional judgment.

4.3.4. Mechanism Tests

To evaluate whether path dependency explains the current configuration of EMT discretion, this section applies standard process-tracing tests to assess whether the evidence aligns with the causal story proposed in H1. The mechanisms identified above, early federal design, reinforcement through national curricula, professional socialization, and organizational adoption, should collectively produce durable constraints on autonomy that persist despite changes in technology, staffing, or operational demands. If these mechanisms are operating as expected, there should be observable and consistent patterns of limited discretion across diverse

system types, continuity in institutional structures over time, and difficulties implementing reforms that require expanded clinical judgment. The following tests examine whether the available evidence meets these expectations.

4.3.4.1. Smoking-Gun Tests Smoking-gun evidence for H1 would show that contemporary limits on EMT discretion cannot be understood without the early institutional conditions established in the DOT/NHTSA era. Several cases and documents meet this standard. For example, CMS explicitly notes that its transport-only reimbursement rules are "an artifact of EMS's history," (Centers for Medicare & Medicaid Services, 2023; National EMS Advisory Council, 2019) directly linking current incentives to earlier federal design. This statement confirms that financial structures shaping present-day practice are themselves products of the system's path-dependent origins. Evidence of this kind strongly supports the hypothesis because it demonstrates recognition, by authoritative institutions, that early decisions continue to shape professional judgment.

Smoking-gun evidence also appears in the persistence of DOT-era priorities such as rapid transport, standardized procedures, and hierarchical supervision (see Institute of Medicine, 2007; Shah, 2006; United States Department of Transportation, National Highway Traffic Safety Administration, 1969, 1977, 1984). These priorities remain dominant across states and agencies, even in regions that have adopted more sophisticated medical oversight or advanced clinical technologies. For instance, states continue to define EMT roles as performing "specified skills within a limited scope," repeating language drawn directly from the earliest national curricula and later codified in the National EMS Scope of Practice Model (National Association of State EMS Officials, 2021; United States Department of Transportation, National Highway Traffic Safety Administration et al., 2007/2019). The fact that core role definitions have not

meaningfully changed despite widespread diversification in EMS delivery structures demonstrates a causal imprint of early federal design. This level of continuity is highly unlikely to arise without path-dependent reinforcement.

Additionally, explicit barriers to innovation appear to offer strong smoking-gun support. Many agencies attempting to implement community paramedicine, treat-and-release programs, or expanded assessment roles encountered regulatory and structural limitations that can be traced directly to the system's early formation (see Centers for Disease Control and Prevention, 2024; Rural Health Information Hub, 2020; Shannon et al., 2022). Community paramedicine programs often stalled when EMTs' limited discretion prevented them from performing key tasks, revealing that the technician-oriented model is too restrictive to support new clinical responsibilities (see Centers for Disease Control and Prevention, 2024; Shannon et al., 2022). These reform failures would not be expected if discretion were shaped primarily by contemporary organizational needs or clinical conditions. Instead, they point to deeply entrenched historical constraints.

4.3.4.2. Hoop Tests Hoop tests identify necessary conditions for the mechanism to operate. H1 requires that key institutional features originating in the formative period remain embedded in the contemporary system. The first such condition, the persistence of national standard curricula, clearly holds. All fifty states use NHTSA-derived training standards as the basis for certification, even when additional competencies or local variations are included (Brooks et al., 2016; Institute of Medicine, 2007; United States Department of Transportation, National Highway Traffic Safety Administration, 2009). This continuity ensures that every new cohort of EMTs enters the field with expectations shaped by the technician-oriented model

established in the 1970s. Without this standardization, path dependency would lack the stable institutional substrate needed to reproduce its effects.

A second necessary condition is the continued requirement for physician medical direction. This oversight structure, introduced early in EMS development, remains universal across states and delivery models (see American College of Emergency Physicians, 2017; Baker, 2022; United States Fire Administration, 2012). Providers still must seek physician approval for deviations from protocol (American College of Emergency Physicians, 2017; Baker, 2022), demonstrating the enduring influence of early assumptions about hierarchical clinical authority. This persistent requirement creates a structural boundary on discretion that cannot be easily altered by changes in organizational or market conditions (Baker, 2022; United States Fire Administration, 2012). Since this oversight model is foundational to the institutional trajectory of EMS, its survival satisfies a core hoop test for the path-dependent mechanism.

A third necessary condition is the ongoing dominance of protocol-based practice. Across all system types, fire-based, private, municipal third-service, hospital-based, and volunteer, protocols remain the primary mechanism governing clinical decisions (see Baker, 2022; Institute of Medicine, 2007; Washington State Department of Health, 2017). Even where protocols are updated or adapted to local conditions, they continue to function as rigid frameworks that limit independent judgment. In Seattle, for example, BLS crews consistently adhere to strict protocol pathways and escalate uncertainties upward, even when working in a medically sophisticated environment (Public Health – Seattle & King County, 2019, 2025; Washington State Department of Health, 2017). This persistence indicates that the structural constraints on discretion established early in EMS development remain both functional and influential. The presence of these necessary conditions supports the plausibility of H1.

4.3.4.3. Straw-in-the-Wind Tests

Straw-in-the-wind evidence increases confidence in H1 by showing patterns consistent with path dependency, even if they are not definitive on their own. One such pattern is the remarkable consistency of EMT role definitions across states, agencies, and decades. Despite major differences in governance structures, system designs, and resource availability, EMTs nationwide are trained, supervised, and evaluated according to nearly identical expectations (Brooks et al., 2016; Institute of Medicine, 2007; National Association of State EMS Officials, 2021). This uniformity would be surprising if discretion were primarily shaped by local organizational practices or contemporary clinical needs. Instead, it aligns closely with the hypothesis that early federal design established a role definition that persists because of institutional lock-in.

Another straw-in-the-wind indicator is the limited evolution of EMT autonomy in response to technological or clinical advances. Tools such as advanced monitoring devices, telemedicine connections, or improved diagnostic algorithms have expanded the information available to providers, yet EMTs remain constrained in how they can interpret or act on this information (Baker, 2022; Institute of Medicine, 2007). These constraints appear to operate independently of technological capacity and reflect enduring assumptions about EMTs' appropriate level of clinical reasoning. Even in hospital-based EMS systems with strong clinical governance, EMTs remain procedurally oriented and defer interpretation to supervisors or physicians (Lee et al., 2018; Shah, 2006). This suggests that historical identity formation plays a role in shaping how providers understand their scope of judgment.

A final supportive pattern appears in the uneven success of reform efforts. Innovations that require expanded clinical discretion, such as alternative destination policies or treat-in-place protocols, have progressed slowly or inconsistently not because agencies lack interest, but

because institutional structures limit the feasible range of reform (Centers for Medicare & Medicaid Services, 2019; Institute of Medicine, 2007; United States Department of Transportation, National Highway Traffic Safety Administration, 1996). This is consistent with a system shaped by historical legacies rather than contemporary policy goals. When reforms do succeed, they often appear to do so by building on existing structures rather than transforming them, reinforcing the idea that discretion remains embedded in a path-dependent institutional environment.

4.3.5. Alternative Explanations

Although the evidence strongly supports a path-dependent explanation for the contemporary configuration of EMT discretion, several alternative explanations merit explicit consideration because each could plausibly generate constrained autonomy in the present. The key analytic task is not to deny the relevance of these factors, but to assess whether any of them can account for three empirical features documented in this chapter: (1) cross-jurisdictional uniformity in baseline role definition, (2) durability of those boundaries across decades, and (3) the persistence of protocol- and oversight-centered constraints across heterogeneous organizational forms (Brooks et al., 2016; Institute of Medicine, 2007; National Association of State EMS Officials, 2021). The alternatives below offer partial leverage on proximate mechanisms but provide weaker explanatory purchase on the stability and scope of the institutional pattern.

Clinical-demand account. One rival explanation is that discretion is determined primarily by immediate clinical demands or the inherent complexity of prehospital medicine, rather than by historically inherited institutional structures. If this claim were decisive, variation in call acuity, diagnostic uncertainty, or local health-system conditions would be expected to produce

corresponding variation in discretionary latitude—either broader judgment in high-acuity, ambiguous environments or differentiated autonomy where clinical complexity is greatest. Yet the evidence indicates that clinical variation does not map onto discretion: EMT role definitions remain strikingly uniform across jurisdictions with widely varying call profiles, population densities, and health-system configurations (Brooks et al., 2016; Institute of Medicine, 2007; National Association of State EMS Officials, 2021). Autonomy remains narrow whether providers respond to low-acuity suburban injuries or high-acuity urban medical emergencies (Institute of Medicine, 2007; Shah, 2006). This mismatch is analytically important because it suggests that clinical demands function as a context of action rather than a primary driver of the institutional boundaries that authorize or constrain judgment. In other words, clinical complexity helps explain why discretion is exercised, but not why the permissible scope of discretion is so consistently bounded across contexts.

Liability-driven standardization account. A second alternative is that liability environments generate conservative, standardized decision-making and thereby compress discretion. This account predicts that jurisdictions facing higher legal exposure, weaker indemnification, or more adversarial liability climates should display tighter protocols and narrower autonomy, while lower-risk environments should tolerate greater discretionary latitude (Baker, 2022; United States Fire Administration, 2012). Liability concerns clearly matter for organizational behavior and often reinforce protocol adherence; however, the evidence presented here shows that similarly constrained autonomy persists across jurisdictions with meaningfully different legal environments and oversight structures (Institute of Medicine, 2007; Shah, 2006). The Washington and Nevada illustration captures the point: strong protocol adherence is sustained despite differences in state oversight and liability climate (Public Health – Seattle &

King County, 2019; Washington State Department of Health, 2017). The implication is not that liability is irrelevant, but that it operates more plausibly as a reinforcing mechanism that strengthens already-existing constraints than as the foundational cause of their cross-jurisdictional stability. Liability accounts struggle to explain why the same baseline technician model is reproduced so broadly even where legal conditions differ.

Organizational-culture account (fire-service hierarchy). A third explanation emphasizes organizational culture—particularly the hierarchical command structure of fire-based systems—as the principal mechanism limiting clinical autonomy (JEMS, 2024; National Volunteer Fire Council, 2017). This account predicts systematic differences between fire-based and non–fire-based systems: narrower discretion in command-driven environments and comparatively broader autonomy where managerial hierarchies are flatter or clinical governance is stronger. Yet the observed pattern is that constraint is not confined to the fire service. Constrained discretion also characterizes private ambulance services and hospital-based EMS programs operating under distinct incentive structures and governance logics. The Seattle/King County evidence is analytically probative because it shows strict protocols and escalation norms operating across organizationally dissimilar tiers, including the fire-based BLS system and the private ALS tier (Public Health – Seattle & King County, 2019, 2024, 2025). This cross-organizational replication weakens a culture-only account: organizational culture can plausibly shape how protocols are enforced or how uncertainty is managed, but it does not adequately explain why protocol-centered authority remains the dominant architecture across organizational forms.

Market-centered account. A fourth alternative attributes boundaries on discretion to contemporary market forces—competition, contracting, performance metrics, and reimbursement incentives—rather than to historical legacies. This account predicts that more market-exposed

environments should display tighter managerial control and narrower discretion, while less market-exposed or more clinically integrated environments should permit broader judgment. The evidence indicates that market pressures do affect operational behavior, but they do so within a pre-established ceiling structured by training standards, scope-of-practice rules, and physician-directed oversight (Institute of Medicine, 2007; National EMS Advisory Council, 2019; United States Department of Transportation, National Highway Traffic Safety Administration, 1996). The persistence of protocol dependence and hierarchical consultation even in hospital-based systems with strong clinical governance is especially difficult for a market-first explanation, because those settings should be among the most likely to expand discretionary judgment if market logics were the primary constraint. Instead, the technician identity and the architecture of oversight persist despite variation in organizational incentives, suggesting that market dynamics modify the expression of discretion but do not supply a sufficient account of its durable institutional configuration.

Across these alternatives, a consistent analytic pattern emerges: each rival explanation offers leverage on proximate constraints (risk management, managerial control, organizational enforcement, operational incentives), but none convincingly accounts for the durability and uniformity of the role definition and oversight structure documented across states and over time (Brooks et al., 2016; Institute of Medicine, 2007; National Association of State EMS Officials, 2021). By contrast, the path-dependent account developed in the H1 analysis directly targets the origin and persistence of those boundaries: early federal design located EMS within a transportation-safety frame, embedded a technician-oriented scope through national curricula and oversight expectations, and established reinforcing feedback processes that stabilized the model through training, regulation, organizational socialization, and reimbursement incentives (Brooks

et al., 2016; Centers for Medicare & Medicaid Services, 2019, 2023; Institute of Medicine, 2007; National EMS Advisory Council, 2019; Shah, 2006; United States Department of Transportation, National Highway Traffic Safety Administration, 1969, 1977, 1984, 1996, 2009). On that basis, the alternative explanations are best understood not as substitutes for H1 but as secondary mechanisms that condition how the inherited institutional architecture is enacted, thereby strengthening rather than displacing the inference that contemporary discretion reflects a historically embedded trajectory.

4.3.6. H1 Findings

The evidence strongly supports H1: contemporary EMT and paramedic discretion reflects a path-dependent institutional trajectory rooted in early federal design. The DOT/NHTSA model established narrow role definitions, standardized curricula, physician-directed oversight, and transport-oriented incentives that continue to shape practice. Results indicate that these features persist across states and agency types, indicating that present-day discretion is structured by historical legacies rather than immediate operational or clinical needs. The stability of these constraints across diverse systems demonstrates that early institutional choices continue to define the boundaries of frontline judgment.

Smoking-gun evidence is particularly decisive. CMS's explicit recognition that the transport-only reimbursement system (see Centers for Medicare & Medicaid Services, 2019, 2023; National EMS Advisory Council, 2019) is an artifact of EMS's history directly links current incentives to early federal design. Similarly, role definitions describing EMTs as performing "specified skills within a limited scope" (see National Association of State EMS Officials, 2021; United States Department of Transportation, National Highway Traffic Safety Administration et al., 2007/2019) closely echo phrasing from the original national curricula. This

continuity across more than four decades confirms that foundational assumptions still structure EMT authority. These direct institutional acknowledgments provide strong confirmation of the path-dependent mechanism.

Hoop-test evidence reinforces this conclusion by demonstrating that the necessary conditions for path dependency remain intact. All states continue to rely on NHTSA-derived training standards (see Brooks et al., 2016; Institute of Medicine, 2007; United States Department of Transportation, National Highway Traffic Safety Administration, 2009), ensuring that each cohort of EMTs is socialized into a technician-oriented identity. Physician medical direction remains universal and functionally constrains autonomous decision-making (see American College of Emergency Physicians, 2017; Baker, 2022; United States Fire Administration, 2012). Requirements that deviations from protocol receive supervisory or physician approval persist across agencies (see American College of Emergency Physicians, 2017; Baker, 2022; Washington State Department of Health, 2017), maintaining the structural ceiling established during the system's formation. These enduring features show that the architecture needed for path dependency is still operating.

Straw-in-the-wind evidence further strengthens the explanation. Discretion remains narrow across fire-based, private, hospital-based, municipal, and volunteer systems (see Brooks et al., 2016; Institute of Medicine, 2007; Public Health – Seattle & King County, 2019, 2024, 2025), patterns that alternative explanations such as liability pressures, operational demands, or organizational culture cannot fully account for. Innovations requiring expanded judgment repeatedly encounter structural barriers rooted in early role definitions Centers for Medicare & Medicaid Services, 2019; National EMS Advisory Council, 2019. Community paramedicine programs, for example, stalled when EMT discretion proved insufficient to support expanded

responsibilities (see Centers for Disease Control and Prevention, 2024; Rural Health Information Hub, 2020; Shannon et al., 2022). These consistent constraints across varied contexts align closely with the expectations of a path-dependent system.

Overall, the findings demonstrate that the institutional architecture built during EMS's formative decades continues to shape the discretionary environment in which providers operate. The persistence of standardized curricula, narrow scopes of practice, hierarchical oversight, and transport-centered incentives indicates that contemporary autonomy is bounded by long-standing institutional commitments. H1 is therefore strongly supported: path dependency offers the most compelling explanation for why discretion in the U.S. EMS system remains limited and remarkably stable across jurisdictions.

4.4. H2 Analysis: How Market Structures Influence Discretion

H2 examines whether the structure of the market influences professionals' level of discretion, proposing that variation across EMS delivery models, such as fire-based systems, private ambulance firms, municipal third services, hospital-based programs, public-utility models, and volunteer agencies, produces systematic differences in how EMTs and paramedics interpret protocols and manage clinical and operational uncertainty. Market logics are expected to shape coordination mechanisms, supervisory relationships, performance expectations, and organizational incentives, thereby creating patterned variation in frontline decision-making. Empirical contrasts across jurisdictions indicate substantial divergence consistent with these expectations; for example, private ALS units in King County respond strongly to contractual performance metrics (see Public Health – Seattle & King County, Emergency Medical Services Division, 2025; Seattle & King County Emergency Medical Services System, n.d), whereas Seattle Fire's BLS units operating under the same medical direction rely more heavily on

conservative, protocol-bound pathways (see Public Health – Seattle & King County, Emergency Medical Services Division, 2020–2025; Seattle Fire Department, n.d). This section evaluates whether such differences reflect the influence of market structure by examining the mechanisms through which organizational arrangements shape discretion and by assessing whether observed patterns across cases align with the theoretical expectations of H2.

4.4.1. Federal Standardization

Although EMS delivery models differ substantially across the United States, they appear to operate on a uniform structural foundation created through federal standardization of training, scope of practice, and clinical oversight. Since the 1970s, NHTSA's National Standard Curricula (United States Department of Transportation, National Highway Traffic Safety Administration, 1994; United States Department of Transportation, National Highway Traffic Safety Administration, 1984) and the National Scope of Practice Model (National Association of State EMS Officials, 2019) have provided the template for state certification requirements and defined the skills and authority associated with each provider level. Nearly all states adopted these materials wholesale, resulting in a consistent baseline of competencies and limitations across jurisdictions (National Association of State EMS Officials, 2019; National Association of State EMS Officials, 2020). State statutes and regulatory guidance continue to define EMTs as personnel who are licensed to perform a detailed set of skills within a prescribed scope of practice, reflecting language and concepts developed in these national models (Reed-Schrader & Dunn, 2022; United States Department of Transportation, National Highway Traffic Safety Administration, 1994). This alignment ensures that market-driven differences in discretion are not attributable to fundamental variation in statutory authority or training content.

Federal standardization also appears to have established the expectation that EMS clinicians function under physician-directed oversight, a requirement that remains universal across delivery models (National Association of State EMS Officials, 2019). This framework ensures that protocols govern clinical decision-making regardless of whether a system is fire-based, private, municipal, or hospital-affiliated. Mandates that deviations from protocol require supervisory or physician approval persist across states (see National Association of State EMS Officials, 2019; Reed-Schrader & Dunn, 2022), reinforcing a nationally consistent ceiling on autonomous judgment. As a result, even systems with substantial organizational or operational differences begin from the same set of clinical constraints and oversight expectations.

This standardized foundation is essential for evaluating H2 because it isolates the influence of market structure from other potential sources of variation. Results indicate that when EMTs and paramedics nationwide are trained, certified, and supervised according to the same national model, differences in how discretion is exercised across agencies are more plausibly explained by organizational arrangements than by differences in baseline preparation or regulatory authority. For example, variation between private ALS units in King County and the Seattle Fire BLS tier cannot be attributed to training differences, as both operate under the same national standards and county-level protocols (see National Association of State EMS Officials, 2019; Public Health – Seattle & King County, Emergency Medical Services Division, 2025). Federal standardization therefore provides the common institutional baseline against which the discretionary effects of market structure can be meaningfully assessed.

4.4.2. Mechanisms of Market Influence

Results indicate that market structure shapes how EMS agencies coordinate work, allocate authority, and evaluate performance. Although all agencies operate on a standardized

national foundation, organizational models differ in their revenue structures, supervisory hierarchies, performance expectations, training investments, approaches to medical oversight, and professional identities (see National Association of State EMS Officials, 2020; Stout, 1980). These differences appear to structure the incentive environment in which frontline providers make decisions about protocol interpretation, scene management, transport determinations, and clinical ambiguity. The following mechanisms outline the pathways through which market structures are expected to influence discretion.

4.4.2.1. Revenue Incentives Revenue models vary substantially across EMS system types (see Centers for Medicare & Medicaid Services, 2025; National Association of State EMS Officials, 2020) and appear to shape how providers approach transport decisions and manage clinical uncertainty. Private firms operating under fee-for-service arrangements often face strong incentives to maximize billable transports (see Centers for Medicare & Medicaid Services, 2019, 2025), creating pressures to interpret ambiguous cases conservatively and in favor of conveyance. In Clark County, for example, transport-based reimbursement aligns with private ALS behavior in ways that mirror national payment structures, reinforcing a default toward conveyance rather than expanded on-scene assessment (Clark County & MedicWest Ambulance, 2016; Clark County, 2015, 2025). In contrast, fire-based systems funded through municipal appropriations are less directly exposed to transport volume pressures and may adopt more conservative, protocol-driven approaches that reduce autonomy (Public Health – Seattle & King County, Emergency Medical Services Division, 2024, 2025; Seattle Fire Department, n.d).

These differences appear to create divergent incentive environments that can influence the range of discretionary options providers consider.

4.4.2.2. Hierarchical Structure Organizational hierarchies appear to shape how frontline clinicians interpret protocols and navigate uncertainty. Fire-based systems tend to exhibit paramilitary structures characterized by strict chains of command, formalized supervision, and strong expectations for procedural conformity (see King County Department of Public Health, 2025; St. Petersburg Fire Rescue, n.d.). This model appears to encourage conservative decision-making and reliance on supervisory consultation, narrowing the discretionary space available to EMTs. Private and public-utility systems may have flatter organizational structures but still appear to rely on close administrative oversight and quality assurance mechanisms that shape judgment (see Alameda County Emergency Medical Services Agency, 2024; Pinellas County Board of County Commissioners, 2024; Stout, 1980). The Seattle Fire BLS tier illustrates this dynamic: providers routinely escalate uncertain cases to supervisors and adhere closely to protocol pathways, reflecting hierarchical expectations embedded in the fire service model (see King County Department of Public Health, 2025; Public Health – Seattle & King County, Emergency Medical Services Division, 2020–2025).

4.4.2.3. Performance Metrics and Administrative Surveillance Contractual accountability mechanisms, particularly in private and public-utility models, appear to influence discretion by aligning provider behavior with measurable performance indicators. Metrics such as response times, chute times, unit-hour utilization, and customer satisfaction shape how agencies evaluate performance (see Alameda County Emergency Medical Services Agency, 2022; King County Department of Public Health, 2025; Pinellas County Board of County Commissioners, 2024) and may discourage discretionary decisions that could delay transport or

extend on-scene assessment. Systems operating under competitively bid contracts often appear to embed these metrics into QI programs and employee evaluations, strengthening their influence on frontline practice. Private ALS units in King County, for instance respond directly to performance targets specified in the county contract, resulting in more aggressive adherence to operational timelines than the adjacent fire-based BLS tier see (Clark County, 2015, 2025; Clark County & MedicWest Ambulance, 2016; City of Las Vegas & American Medical Response, 2025; Public Health – Seattle & King County, Emergency Medical Services Division, 2025). These mechanisms encourage predictable, standardized actions and narrow the scope for independent interpretation.

4.4.2.4. Training Investment Data suggest that variation in training investment affects provider confidence, skill development, and interpretive capacity. Hospital-based and well-resourced municipal systems often offer extensive continuing education, physician-led case reviews, and opportunities for advanced clinical training (see Boston Emergency Medical Services, n.d.; Boston EMS Academy, 2019; Public Health – Seattle & King County, Emergency Medical Services Division, 2020–2025), which can expand the range of judgments providers feel equipped to make. In contrast, private and volunteer systems appear to offer more limited training due to financial or staffing constraints (see National Association of State EMS Officials, 2020; Reed-Schrader & Dunn, 2022), reinforcing reliance on narrow protocol adherence. Even within standardized certification frameworks, differences in training depth seem to shape how providers approach uncertainty. In several of the cases analyzed, agencies with higher training investment also exhibited more nuanced applications of protocols, though still within the limits

established by standardized scopes of practice (see Boston EMS Academy, 2019; Public Health – Seattle & King County, Emergency Medical Services Division, 2020–2025).

4.4.2.5. Medical Oversight Orientation Medical direction varies across systems in its intensity, philosophy, and expectations for provider judgment (see National Association of State EMS Officials, 2019; Reed-Schrader & Dunn, 2022). Engaged medical directors who offer responsive consultation, support provider education, and encourage clinical reasoning may create conditions in which discretion can expand at the margins Public Health – Seattle & King County, Emergency Medical Services Division, 2020–2025; National Association of State EMS Officials, 2021. Conversely, data suggests that systems with punitive or minimal oversight tend to reinforce conservative, protocol-centered behavior (see Reed-Schrader & Dunn, 2022). These differences can influence how EMTs interpret their scope of judgment in ambiguous cases. For example, some hospital-affiliated programs incorporate active case feedback loops that support more flexible on-scene decision-making (see Boston EMS Academy, 2019; Boston Emergency Medical Services, n.d.), whereas in other jurisdictions, supervisory structures remain highly prescriptive (see Clark County & MedicWest Ambulance, 2016; Pinellas County Board of County Commissioners, 2024). Medical oversight thus acts as a key mediator between formal protocols and real-time clinical judgment.

4.4.2.6. Organizational Identity Market structure appears to influence the cultural expectations that shape how providers understand their role. Fire-based systems seem to emphasize public-safety identity, collective risk management, and hierarchical discipline, encouraging conservative, protocol-bound interpretations of discretion (see King County Department of Public Health, 2025; St. Petersburg Fire Rescue, n.d.). Private systems, by contrast, may emphasize customer service, efficiency, and contractual performance, affecting

how providers balance protocol adherence with operational demands (see Clark County & MedicWest Ambulance, 2016; City of Las Vegas & American Medical Response, 2025; PatientCare EMS Solutions, n.d). Hospital-based systems often emphasize clinical integration, aligning provider identity more closely with healthcare models that support interpretive flexibility (see Boston EMS Academy, 2019). These differences appear clearly in Seattle/King County, where the private ALS tier adopts a performance-oriented identity while the fire-based BLS tier maintains a public-safety orientation, leading to divergent approaches to uncertainty under identical county protocols (see King County Department of Public Health, 2025; Public Health – Seattle & King County, Emergency Medical Services Division, 2020–2025). Identity thus shapes how providers translate organizational expectations into scene-level action.

4.4.3. Case Studies

The mechanisms outlined above are expected to produce patterned variation in provider discretion across different EMS system types. To evaluate these expectations, this section examines five jurisdictions, Alameda County, Seattle/King County, Las Vegas/Clark County, Boston, and Pinellas County, that represent distinct market structures and operational environments. Each case is analyzed using the same framework: the organizational model, activation of relevant mechanisms, and resulting effects on protocol interpretation, scene management, and clinical judgment. This controlled-comparative approach allows the analysis to identify whether variation in discretion aligns with theoretical expectations about how market structures shape frontline decision-making. Because all jurisdictions operate on the same standardized national foundation, observed differences can more plausibly be attributed to differences in organizational incentives and coordination mechanisms rather than underlying variation in training or statutory authority.

4.4.3.1. Case 1: Alameda County

Alameda County operates a public–utility model in which the county maintains centralized clinical governance while contracting with a private provider for ALS transport and relying on fire departments for BLS first response Alameda County Emergency Medical Services Agency, 2024; California Emergency Medical Services Authority, 2024. This hybrid structure blends public-safety norms with private-sector incentives, creating distinct discretionary environments across agencies. The ALS provider functions under fee-for-transport reimbursement and detailed performance requirements, while fire-based BLS responders operate within hierarchical command structures oriented toward procedural conservatism Alameda County Emergency Medical Services Agency, 2022, 2024. This combination makes Alameda an important case for examining how public oversight and market incentives jointly shape frontline judgment.

Revenue incentives appear to shape ALS decision-making by encouraging transport-oriented interpretations of ambiguous clinical presentations, particularly when performance metrics emphasize rapid scene turnover. Contractual response-time benchmarks tied to operational evaluation (see Alameda County Emergency Medical Services Agency, 2022, 2024) reinforce these incentives and influence how ALS crews navigate uncertainty. In contrast, BLS crews adhere closely to protocolized care and escalate decision-making through supervisory pathways (see Alameda County Emergency Medical Services Agency, 2022), reflecting the conservative risk-management culture typical of fire-based EMS systems. These divergent patterns illustrate how organizational form mediates the discretion available to frontline providers. Even within a single county system, ALS and BLS personnel exercise autonomy differently due to their respective incentive environments.

Performance metrics and medical oversight appear to further differentiate discretionary behavior. The county contract establishes chute times, response intervals, quality indicators, and documentation standards that encourage predictable, standardized ALS actions and discourage discretionary deviations that could affect measured performance (Alameda County Emergency Medical Services Agency, 2022, 2024). As in other PUA systems, these administrative controls narrow the space for on-scene judgment by aligning frontline behavior with contract-based expectations (Stout, 1980; Stout, 1985). Medical oversight applies uniformly across agencies but appears to interact differently with organizational cultures, supporting limited interpretive flexibility among ALS crews while reinforcing procedural adherence among fire-based BLS providers (see Alameda County Emergency Medical Services Agency, 2024). Together, these dynamics show that Alameda County exhibits patterned variation consistent with H2: market structure and organizational identity shape how EMTs and paramedics interpret and apply discretion within a standardized regulatory framework.

4.4.3.2. Case 2: Seattle/King County Seattle/King County operates a dual-tier system in which the Seattle Fire Department provides BLS first response while a contracted private provider delivers ALS transport (King County Department of Public Health, 2025; Public Health – Seattle & King County, Emergency Medical Services Division, 2024; Seattle & King County Emergency Medical Services System, n.d). Both tiers operate under the same countywide protocols, medical oversight, and regulatory environment, making the system an instructive setting for isolating the effects of organizational form on discretion. The contrasting incentive structures, public-safety orientation for BLS and contract-driven performance expectations for ALS, create distinct discretionary environments despite uniform clinical governance. This

controlled internal variation makes King County a strong case for evaluating H2's expectation that market structure shapes frontline judgment.

Data suggest that private ALS units operate under detailed performance requirements, including response-time standards, operational benchmarks, and contractual evaluation criteria (see Public Health – Seattle & King County, Emergency Medical Services Division, 2024, 2025; King County Department of Public Health, 2025). These conditions create incentives to manage scene time efficiently and interpret ambiguous cases in ways that support predictable transport patterns. For example, ALS units demonstrate performance-driven decision-making shaped by contract-backed accountability mechanisms. In contrast, fire-based BLS providers rely heavily on prescribed care pathways and supervisory escalation, reflecting the hierarchical norms and risk-management culture of the fire service (see King County Department of Public Health, 2025; Public Health – Seattle & King County, Emergency Medical Services Division, 2020–202). These differences illustrate how market incentives and organizational identity produce divergent approaches to protocol interpretation and clinical uncertainty.

Results further indicate that medical oversight applies uniformly across ALS and BLS tiers but interacts differently with organizational structures. ALS crews participate in more extensive clinical review processes and receive regular physician feedback that can support limited interpretive flexibility within protocols (see Public Health – Seattle & King County, Emergency Medical Services Division, 2020–2025). BLS providers apply the same clinical rules within a more rigid operational hierarchy, reinforcing conservative decision-making and procedural adherence (see King County Department of Public Health, 2025). Data suggest that BLS crews consistently follow strict protocol pathways and escalate uncertainties upward, demonstrating the influence of fire-service organizational culture. Together, these patterns show

that the King County system exhibits clear, mechanism-consistent variation in discretion attributable to market structure and organizational form rather than differences in training or regulatory authority.

4.4.3.3. Case 3: Las Vegas / Clark County Las Vegas/Clark County operates a franchise-based private EMS model in which multiple contracted ambulance companies deliver ALS transport under competitive and performance-driven conditions (see Clark County & MedicWest Ambulance, 2016; Southern Nevada Health District, 2015). This structure creates one of the most market-intensive environments among the cases examined, with firms operating under fee-for-transport reimbursement and detailed contractual requirements. Organizational survival appears to depend on meeting operational benchmarks and maintaining competitiveness for franchise renewal. This high-intensity market structure makes Clark County an important setting for evaluating how financial and contractual incentives shape discretion.

An analysis of data indicates that revenue incentives strongly influence clinical and operational choices. Data suggests that private ALS crews operate under conditions in which transport is the primary billable event (see Centers for Medicare & Medicaid Services, 2025; Centers for Medicare & Medicaid Services, 2019), creating pressures to interpret ambiguous situations conservatively and in favor of conveyance. Transport-based reimbursement appears to align strongly with clinical and operational decisions (see Clark County, 2015, 2025; Clark County & MedicWest Ambulance, 2016; City of Las Vegas & American Medical Response, 2025; Southern Nevada Health District, 2015), reinforcing a transport-default orientation. Performance metrics, including response times, unit availability, and operational efficiency indicators, further narrow discretionary space by linking compliance to contract performance and financial penalties (see Clark County, 2015, 2025; Clark County & MedicWest Ambulance,

2016; City of Las Vegas & American Medical Response, 2025; Southern Nevada Health District, 2015). As in comparable performance-driven systems, this appears to encourage standardized behavior and discourages extended on-scene assessment that could jeopardize metric compliance.

Results suggest that medical oversight functions within this competitive environment but tends to reinforce rather than counterbalance market pressures. Countywide protocols apply uniformly, yet the decision to escalate uncertainty through physician consultation is shaped by operational expectations tied to turnaround times and unit availability (see Southern Nevada Health District, 2015; Clark County & MedicWest Ambulance, 2016). Crews appear to frequently balance clinical considerations against contractual performance requirements, creating a discretionary environment that privileges predictable, protocol-bound action. This pattern parallels the influence of contractual metrics observed in King County's private ALS tier (see Southern Nevada Health District, 2015; Clark County & MedicWest Ambulance, 2016), demonstrating consistent effects of performance-based accountability on provider judgment. Overall, Clark County provides strong evidence that market intensity and contractual oversight shape the discretionary options available to EMS providers within a standardized regulatory framework.

4.4.3.4. Case 4: Boston Boston operates a municipally run EMS system that houses both ALS and BLS responsibilities within a single public agency (see Boston Emergency Medical Services, n.d.; Boston EMS Academy, 2019). Unlike franchise-based or hybrid public–utility models, Boston EMS is funded through municipal appropriations supplemented by service-generated revenue (see Boston Emergency Medical Services, n.d), reducing exposure to competitive market pressures. This structure appears to anchor provider behavior in public-

service expectations and administrative oversight rather than contract-driven incentives. The resulting environment, then, seems to place less emphasis on maximizing transport volume and more on clinical reliability and operational stability.

Data indicate that revenue incentives in Boston are present but muted. While transport contributes to agency funding, organizational stability does not depend on meeting strict transport quotas or contractual response-time penalties (see Boston Emergency Medical Services, n.d.; Boston EMS Academy, 2019). Providers therefore face fewer pressures to interpret ambiguous cases in ways that generate billable transports. Supervisory structures and organizational identity appear to further shape behavior: as a standalone municipal EMS agency, Boston EMS maintains a professional culture centered on clinical competence and public accountability rather than hierarchical command norms typical of fire-based systems (see Boston EMS Academy, 2019; City of Boston, 2025). This identity seems to support cautious interpretive flexibility within protocol boundaries without encouraging aggressive deviation.

Results further indicate that performance expectations are administrative rather than contractual. The agency monitors response times, clinical indicators, and documentation quality, but these metrics are used for organizational improvement rather than financial enforcement (see Boston EMS Academy, 2019). This reduces the operational pressure that characterizes strongly market-driven or franchise-based systems. Medical oversight is delivered through a unified citywide structure that emphasizes guideline adherence while supporting reflective clinical practice (see Boston Emergency Medical Services, n.d). Compared to systems with punitive oversight or contract-based accountability, Boston's clinical governance fosters limited but meaningful discretion at the margins of protocolized care. Together, these dynamics illustrate

how municipal EMS structures shape a moderate and balanced approach to discretion within the standardized national framework.

4.4.3.5. Case 5: Pinellas County Pinellas County operates a public–utility model in which the county maintains centralized oversight of system design, clinical governance, and dispatch while contracting multiple private providers to deliver ALS transport (see PatientCare EMS Solutions, n.d.; St. Petersburg Fire Rescue, n.d.). This hybrid structure combines strong public administrative control with private-sector operational incentives, which appears to create a layered environment that shapes frontline discretion. The county's central role in protocol development and performance monitoring ensures uniform system expectations (see St. Petersburg Fire Rescue, n.d.; Sunstar Paramedics, n.d.), while contracted providers navigate revenue pressures tied to transport reimbursement (see Pinellas County Board of County Commissioners, 2024; PatientCare EMS Solutions, n.d.). This combination makes Pinellas a critical case for examining how mixed market and administrative structures influence provider judgment.

Findings suggest that revenue incentives influence clinical decision-making within the contracted firms, as transport remains the primary billable service and a key component of provider agency finances (see PatientCare EMS Solutions, n.d.; Centers for Medicare & Medicaid Services, 2025). Providers therefore face organizational pressures to favor conveyance in clinically ambiguous cases. Performance metrics specified by the county, including response intervals, unit availability requirements, and quality indicators (see Pinellas County Board of County Commissioners, 2024; Sunstar Paramedics, n.d.), further constrain discretion by linking operational behavior to contract renewal and system evaluation. These dynamics parallel patterns

seen in other performance-driven systems, such as King County, where contract-backed accountability shapes operational and clinical decisions.

Data further indicate that medical oversight reinforces consistency across agencies but interacts with organizational identities shaped by both public authority and private provision. Countywide protocols and case review processes emphasize standardized care and limit interpretive flexibility, particularly where operational efficiency expectations are high (see Pinellas County Board of County Commissioners, 2024; Sunstar Paramedics, n.d.). Providers appear to balance these clinical requirements with performance obligations embedded in their contracts (see Pinellas County Board of County Commissioners, 2024; Sunstar Paramedics, n.d.), producing a discretionary environment that is predictable and bounded. This dual influence of administrative governance and market pressure demonstrates how public–utility models generate patterned variation in discretion within a standardized regulatory framework. Pinellas County thus provides strong support for H2's expectation that organizational form and incentive structures shape how EMS providers apply discretion in the field.

4.4.4. H2 Mechanism Tests

The mechanism tests evaluate whether the observed variation in EMT and paramedic discretion across the five cases is consistent with the causal pathways predicted by H2. Because all systems operate within the same standardized national framework, variation in discretion must arise from differences in organizational form, incentive structure, supervisory arrangements, and operational expectations rather than differences in scope of practice or training. The cases provide a diverse set of market environments, including franchise-based private systems, hybrid public–utility models, fire-based BLS response, and municipal EMS agencies, that allow for cross-case evaluation of these mechanisms. This diversity, combined

with uniform clinical governance, enables strong inferences about the discretionary effects of market structure. Evidence is evaluated using smoking-gun, hoop, and straw-in-the-wind tests.

4.4.4.1. Smoking-Gun Tests Smoking-gun evidence requires clear, compelling confirmation that market incentives directly shape provider discretion. Seattle/King County provides the strongest smoking-gun evidence because ALS and BLS providers work under *identical* medical direction, countywide protocols, dispatch structures, and regulatory requirements (see King County Department of Public Health, 2025; Public Health – Seattle & King County, Emergency Medical Services Division, 2020–2025). Despite this uniformity, ALS crews consistently exhibit "performance-driven decision-making," characterized by rapid scene management, clear prioritization of transport, and operational choices aligned with contractual benchmarks (see Public Health – Seattle & King County, Emergency Medical Services Division, 2024, 2025). ALS units appear to adjust their on-scene actions to meet response-time and unit availability metrics specified in the county contract, demonstrating a direct link between contractual incentives and real-time decision-making. Meanwhile, fire-based BLS units, subject to none of these contractual pressures, follow conservative protocol pathways and escalate uncertainty through supervisory channels (see King County Department of Public Health, 2025), revealing the discretionary consequences of organizational identity rather than clinical necessity.

Las Vegas/Clark County provides an equally compelling smoking-gun pattern. Private ambulance firms depend heavily on fee-for-transport reimbursement, and the system enforces contractual performance requirements with financial consequences for noncompliance (see Clark County, 2015, 2025; Clark County & MedicWest Ambulance, 2016; City of Las Vegas & American Medical Response, 2025). Transport-based reimbursement aligns strongly with clinical and operational decisions (see Centers for Medicare & Medicaid Services, 2025; Southern

Nevada Health District, 2015), showing that crews interpret ambiguous cases in ways that support conveyance. This behavior is not tied to clinical need, as many borderline cases present options for expanded assessment or on-scene care. Instead, the consistent default toward transport reflects the direct influence of market incentives, demonstrating the mechanism predicted by H2 with high confidence.

4.4.4.2. Hoop Tests Hoop tests determine whether necessary conditions for the mechanism are present across all cases. The first necessary condition, meaningful variation in market structure, is clearly met. For instance, Alameda County operates a hybrid public–utility model (see Alameda County Emergency Medical Services Agency, 2024); Seattle/King County combines fire-based BLS with private ALS (see King County Department of Public Health, 2025); Las Vegas uses a franchise-based, fully private model (see Clark County & MedicWest Ambulance, 2016; Southern Nevada Health District, 2015); Boston represents a municipally run system (see Boston Emergency Medical Services, n.d.; Boston EMS Academy, 2019); and Pinellas County blends county control with multiple private ALS providers (see PatientCare EMS Solutions, n.d.; St. Petersburg Fire Rescue, n.d). These structural differences create distinct incentive and oversight environments that are essential for testing the influence of market structure.

A second necessary condition is that systems demonstrate variation in performance expectations tied to their market form. In Seattle/King County (see Public Health – Seattle & King County, Emergency Medical Services Division, 2024, 2025) and Las Vegas/Clark County (see Clark County, 2015, 2025; Clark County & MedicWest Ambulance, 2016), contractual metrics, such as response intervals, unit-hour utilization, and operational benchmarks, appear to directly shape supervisory expectations and provider behavior. In contrast, Boston's municipal

system relies on administrative oversight and internal performance reviews, which are not tied to financial penalties or contract renewal (see Boston Emergency Medical Services, n.d.; Boston EMS Academy, 2019). This distinction is reflected in how Boston providers apply modest interpretive discretion within protocols, whereas private-sector crews consistently avoid decisions that may endanger metric compliance. The fact that these performance environments map cleanly onto observed differences in discretion satisfies this necessary condition.

A third necessary condition is that clinical rules and training remain constant across systems so that differences in discretion cannot be attributed to divergent statutory or educational frameworks. The standardized national curricula, protocols, and oversight arrangements satisfy this requirement. State statutes in multiple jurisdictions continue to define EMT roles as performing "specified skills within a limited scope," mirroring national standard curriculum language (see National Association of State EMS Officials, 2019; United States Department of Transportation, National Highway Traffic Safety Administration, 1994; United States Department of Transportation, National Highway Traffic Safety Administration, 1996). Because this foundation is consistent, differences observed across the cases must arise from organizational structure rather than regulatory or training variation. All three necessary conditions are present, meeting the requirements of a hoop test.

4.4.4.3. Straw-in-the-Wind Tests Straw-in-the-wind evidence increases confidence in the causal explanation by demonstrating patterns consistent with the mechanism, even if those patterns are not definitive on their own. Across cases, systems with strong market incentives, such as Las Vegas and the ALS tier in Seattle/King County, show clear tendencies toward rapid scene times, conservative escalation, and transport-oriented decisions, even when protocols allow for interpretive flexibility (see Clark County & MedicWest Ambulance, 2016;

Public Health – Seattle & King County, Emergency Medical Services Division, 2024, 2025). These patterns align with the predicted effects of performance metrics, revenue incentives, and contractual accountability. For example, private ALS units in both King County and Pinellas County demonstrate similar behavior under contractual pressure (see PatientCare EMS Solutions, n.d.; Pinellas County Board of County Commissioners, 2024), suggesting a cross-jurisdictional pattern rather than isolated organizational culture.

Conversely, systems with muted market incentives, such as Boston or the fire-based BLS tiers, show greater reliance on supervisory consultation and procedural adherence (see Boston Emergency Medical Services, n.d.; King County Department of Public Health, 2025), reflecting organizational identity more than financial or contractual pressure. The fact that Boston EMS exhibits cautious interpretive flexibility while still adhering to clear procedural norms reinforces the expectation that municipal systems produce different discretionary environments than market-driven ones. These moderate differences, though not definitive in isolation, consistently correspond to organizational form across multiple jurisdictions. Together, these patterns strengthen the plausibility of H2.

4.4.5. H2 Alternative Explanations

Although the evidence presented across the five cases strongly supports the hypothesis that market structure influences professional discretion, several alternative explanations merit consideration. These alternatives include liability pressures, clinical complexity, regulatory variation, and organizational culture. While each factor contributes to the environment in which EMS providers operate, results suggest that none consistently accounts for the patterned variation observed across jurisdictional types. Instead, these factors either operate uniformly across cases or vary in ways that do not map onto the differences in discretion documented in the

case studies. Assessing these explanations is therefore essential to isolating the effects of market structure.

One alternative explanation is that liability environments shape provider discretion by motivating conservative decision-making regardless of organizational form. While liability concerns are present across all EMS systems (National Association of State EMS Officials, 2019; Reed-Schrader & Dunn, 2022), they do not vary in a manner that aligns with differences in discretion. For example, both King County and Clark County operate in robust legal environments, yet ALS decision-making differs substantially between these settings (see Clark County & MedicWest Ambulance, 2016; King County Department of Public Health, 2025) due to divergent contractual pressures rather than differences in lawsuit risk. Similarly, fire-based BLS providers in Seattle demonstrate highly conservative behavior under the same liability conditions as private ALS units, indicating that legal exposure alone cannot explain their procedural orientation. Liability therefore modifies but does not determine discretionary patterns.

Another potential explanation is that clinical complexity or call mix drives variation in discretionary behavior. If this were the case, busier systems or systems with higher-acuity calls should display more constrained discretion due to operational urgency. However, Las Vegas, Boston, and King County all manage high call volumes yet demonstrate different patterns of autonomy that do not correlate with call acuity (see Boston Emergency Medical Services, n.d.; King County Department of Public Health, 2025; Southern Nevada Health District, 2015). The divergence between King County's private ALS and fire-based BLS tiers, who respond to similar call types under the same medical direction, directly challenges the claim that clinical complexity drives the variation. Clinical demands alone therefore cannot explain the observed differences.

A third explanation is that regulatory variation across states or counties determines discretion by imposing different scope-of-practice constraints. Yet the standardized national EMS curricula and consistent state adoption of NHTSA-derived scopes of practice limit regulatory variation across systems National Association of State EMS Officials, 2019, 2020; United States Department of Transportation, National Highway Traffic Safety Administration, 1994. State statutes in multiple jurisdictions continue to describe EMTs as performing "specified skills within a limited scope," language that, as established above, replicates national curricular definitions. Because all five cases operate under this shared foundation, regulatory variation is insufficient to explain why private ALS units in King County exhibit markedly different patterns of discretion than municipal providers in Boston or fire-based BLS units in Seattle. Regulation therefore sets boundaries but does not drive the variation H2 seeks to explain.

Organizational culture is another plausible rival. Fire-based systems often emphasize hierarchical command and procedural conservatism, while private systems may emphasize efficiency or customer service (King County Department of Public Health, 2025; Stout, 1980). Cultural expectations undoubtedly shape provider behavior, yet they do not independently account for the systematic patterns tied to performance metrics and revenue incentives demonstrated across the cases. For instance, fire-based BLS providers in King County display conservative behavior consistent with hierarchical norms, but private ALS units in the same system exhibit performance-oriented decision-making directly aligned with contractual incentives (see King County Department of Public Health, 2025; Public Health – Seattle & King County, Emergency Medical Services Division, 2024, 2025), despite sharing medical direction and protocols. Culture interacts with structure but does not substitute for it.

Finally, political governance or administrative oversight might be considered drivers of variation. However, Boston's administrative oversight and Pinellas County's strong centralized governance produce different patterns of discretion despite both systems being publicly coordinated (see Boston Emergency Medical Services, n.d.; Pinellas County Board of County Commissioners, 2024). The key distinction lies in the presence or absence of contractual pressure: Boston's municipally run EMS system experiences muted market incentives and exercises moderate interpretive flexibility, while Pinellas's contracted providers respond strongly to performance benchmarks. This divergence indicates that governance form alone cannot explain discretionary differences; rather, it is the interaction between governance and market incentives that produces the observed patterns.

Taken together, these alternative explanations offer partial insight but cannot fully account for the systematic, cross-case variation in discretion documented in the analysis. Liability conditions, call complexity, regulatory frameworks, organizational culture, and governance models all shape EMS practice, but results indicate that none independently align with the observed differences in provider autonomy. The consistency with which discretionary patterns correspond to organizational incentives and market structures across jurisdictions provides strong evidence that market form, not these secondary factors, most clearly explains the variation targeted in H2.

4.4.6. H2 Findings

The evidence across the five cases provides strong support for H2: the structure of the market influences professionals' level of discretion. Findings suggest that systems characterized by strong contractual pressures, transport-based reimbursement, and performance-driven oversight consistently display narrower discretionary space, faster escalation pathways, and more

transport-oriented decisions. In contrast, municipal or less market-intensive systems, such as Boston or the fire-based BLS tiers, demonstrate slightly broader interpretive flexibility within protocol boundaries and greater reliance on supervisory consultation (see Boston Emergency Medical Services, n.d.; King County Department of Public Health, 2025). These patterns arise despite uniform training standards, clinical protocols, and regulatory frameworks, indicating that discretionary variation is tied to organizational incentives rather than statutory or educational differences. The consistency of this cross-case alignment strongly supports the causal logic of H2.

Mechanism testing further reinforces these findings. Smoking-gun evidence from Seattle/King County shows that private ALS units working under contractual performance requirements make systematically different decisions than fire-based BLS units operating under the same medical direction and clinical protocols (see King County Department of Public Health, 2025; Public Health – Seattle & King County, Emergency Medical Services Division, 2024, 2025). Similarly, in Las Vegas/Clark County, transport-based reimbursement aligns strongly with clinical and operational decisions (see Centers for Medicare & Medicaid Services, 2025; Clark County, 2015, 2025; Clark County & MedicWest Ambulance, 2016), confirming the direct influence of market incentives on discretion. Hoop tests confirm the presence of necessary structural variation across cases, and straw-in-the-wind tests reveal consistent associations between organizational form and observed patterns of discretion. Together, these tests demonstrate that market structure provides a compelling explanation for the differences documented across jurisdictions.

Results suggest that alternative explanations, such as liability environments, clinical complexity, regulatory variation, or organizational culture, offer partial insight but cannot

independently account for the systematic patterns observed. These factors either remain constant across cases or vary in ways that do not align with differences in provider autonomy. For example, the divergence between King County's private ALS and fire-based BLS tiers occurs under identical liability, protocol, and oversight conditions, isolating market incentives as the primary differentiating factor (see King County Department of Public Health, 2025). The inability of rival explanations to account for cross-case variation strengthens the conclusion that market structures meaningfully shape how EMTs and paramedics navigate protocol interpretation and clinical ambiguity.

Overall, the findings indicate that EMS discretion in the United States cannot be fully understood without accounting for the organizational and incentive environments created by different market structures. While federal standardization establishes a common baseline, market mechanisms produce patterned variation in how much interpretive flexibility providers exercise, how they manage uncertainty, and when they escalate decisions to physicians or supervisors. Systems with stronger contractual incentives appear to display more constrained autonomy, while those embedded in public-service cultures exhibit more measured flexibility within standardized constraints. Findings, therefore, offer strong support for H2: market structure plays a significant and consistent role in shaping professional discretion across contemporary EMS systems.

4.5. H3 Analysis

H3 asks whether path dependency conditions the influence of market structure on professionals' level of discretion, proposing that the variation generated by organizational incentives operates within boundaries established by the historically entrenched institutional architecture of U.S. EMS. The hypothesis expects that market forces will shape discretionary

patterns across system types, but only within the limits set by standardized national curricula, narrow statutory scopes of practice, protocol-driven clinical governance, and the universal requirement for physician oversight. Evidence indicates that even in strongly market-driven environments, such as Las Vegas/Clark County, provider discretion remains constrained by these foundational structures. This section evaluates whether the empirical cases demonstrate such bounded variation and whether the interaction between historical constraints and contemporary market structure provides the most compelling explanation for the patterns of discretion observed across jurisdictions.

4.5.1. Interaction Logic

The interaction logic of H3 posits that market structures shape discretionary behavior only within the boundaries established by the historical development of U.S. EMS. Path-dependent constraints, such as standardized training, narrow scope-of-practice rules, and protocolized clinical pathways, are expected to create an institutional ceiling on the extent to which organizational incentives can expand or contract autonomy. Within such an environment, market forces may influence how providers navigate ambiguity, prioritize tasks, or escalate decisions, but these effects operate on top of structural features that remain largely fixed. Evidence from multiple jurisdictions shows that even systems with strong market pressures, including Las Vegas and private ALS units in King County, exhibit behavior consistent with these structural limits, particularly in their reliance on protocol-driven decision-making (see Clark County & MedicWest Ambulance, 2016; Public Health – Seattle & King County, 2025). The hypothesis therefore expects visible variation across market types, but all variation should remain bounded by the enduring institutional architecture established in earlier decades.

A central element of the interaction logic is that path dependency filters the influence of market incentives by determining which organizational pressures translate into changes in frontline behavior. Performance metrics or revenue incentives may shape how quickly crews clear a scene or how they interpret ambiguous presentations, but they cannot override the formal constraints embedded in scope-of-practice definitions or clinical governance structures. Similarly, market structures may alter supervisory relationships or documentation practices, yet the requirement for physician authorization to deviate from protocols remains constant. This filtering effect is visible in all cases examined, where market incentives generate predictable patterns but never produce autonomy beyond the limits established by protocolized care and medical oversight. The interaction logic therefore anticipates patterned but bounded variation across system types.

4.5.2. Historical Legacies as Conditioning Forces

Findings indicate that historical legacies condition market effects by establishing the structural environment within which discretion is exercised. The early placement of EMS within the Department of Transportation appears to have created a technician-oriented identity that emphasized procedural competence, rapid transport, and compliance with externally defined standards (see Shah, 2006; National Highway Traffic Safety Administration, 1984). As argued above, these assumptions became embedded in national curricula, scope-of-practice models, and state licensing frameworks, producing a uniform definition of EMS roles that persists across jurisdictions (see Brooks et al., 2016; National Association of State Emergency Medical Services Officials & National Highway Traffic Safety Administration, 2019). State statutes continue to describe EMTs as performing “specified skills within a limited scope,” reflecting the enduring influence of these early formulations (see National Association of State Emergency Medical

Services Officials & National Highway Traffic Safety Administration, 2019; New York State Department of Health Bureau of Emergency Medical Services, 2010). These legacies appear to limit the degree to which market incentives can alter decision-making on the ground.

Data also suggest that protocol-driven clinical governance further constrains the influence of market structures. Nationally standardized protocols require providers to follow defined pathways and seek physician authorization when deviating from them, regardless of organizational form or incentive environment (see Institute of Medicine, 2007; National Highway Traffic Safety Administration, 1996). This ensures that core elements of clinical judgment remain consistent across agencies, even when operational pressures differ. In systems such as Las Vegas/Clark County, providers face strong market incentives to transport, yet they still remain bound by protocolized care and must escalate deviations to medical control (see Clark County & MedicWest Ambulance, 2016; Clark County Board of Commissioners, 2025). These regulatory legacies create structural boundaries that market forces cannot eliminate.

Oversight structures also appear to reflect historical patterns that limit discretionary expansion. As discussed above, physician-directed medical oversight, established in the formative period of EMS, remains universal across system types and reinforces the hierarchical nature of clinical decision-making (Institute of Medicine, 2007; Shah, 2006). Even in systems with extensive performance metrics or private-sector incentives, providers operate within an oversight environment that prioritizes protocol adherence and supervisory consultation (see Centers for Disease Control and Prevention, 2024; National Association of State Emergency Medical Services Officials & National Highway Traffic Safety Administration, 2019). This continuity is evident in Seattle/King County, where private ALS units work under contractual pressure but remain embedded in the same oversight framework as conservative fire-based BLS

providers (see Public Health – Seattle & King County, 2025; Seattle Fire Department, 2024). These historical legacies therefore function as conditioning forces that shape the magnitude and direction of market-driven discretionary variation.

4.5.3. Mechanisms: How Path Dependency Conditions Market Effects

Path dependency appears to condition the influence of market structure through a set of mechanisms that constrain how far organizational incentives can shift frontline discretion. The first mechanism operates through standardized national training and scope-of-practice rules, which establish the cognitive and professional boundaries within which EMTs and paramedics interpret their roles (see Brooks et al., 2016; National Highway Traffic Safety Administration, 1984). Because all jurisdictions rely on similar NHTSA-derived curricula and statutory definitions, market structures cannot expand discretion beyond what this professional framework permits. State statutes that describe EMTs as performing specified skills within a limited scope reflect the persistence of these uniform boundaries across cases (see National Association of State Emergency Medical Services Officials & National Highway Traffic Safety Administration, 2019; New York State Department of Health Bureau of Emergency Medical Services, 2010). This mechanism ensures that market-driven variation occurs within a narrow band of acceptable interpretations rather than producing fundamental differences in clinical authority.

The second conditioning mechanism is regulatory: the national protocol-driven model of clinical governance and universal requirement for physician oversight seems to restrict the degree to which discretionary latitude can vary across systems. Protocolized care pathways define how providers manage clinical ambiguity, while the mandate to obtain physician authorization for deviations limits independent judgment (Institute of Medicine, 2007; National Highway Traffic Safety Administration, 1996). These regulatory structures apply uniformly

across fire-based, private, municipal, and hybrid systems and thus cap the extent to which market pressures can alter behavior. In Las Vegas/Clark County, for example, strong market incentives encourage transport-oriented decisions, yet providers still escalate deviations through medical control, demonstrating that regulatory constraints override organizational pressures when conflicts arise (see Clark County & MedicWest Ambulance, 2016; Clark County Board of Commissioners, 2025). This mechanism prevents market structures from producing unbounded discretion even in highly competitive environments.

A third mechanism operates through organizational identity and professional socialization, both of which derive from historical legacies of EMS development. An analysis of data suggests that the technician-oriented identity established during the system's early institutionalization reinforce expectations of procedural adherence, conservative judgment, and reliance on supervisory or physician consultation. These expectations persist even in systems with strong market incentives, shaping how providers translate organizational pressures into on-scene action. In Seattle/King County, private ALS units respond to contractual performance metrics but remain embedded within a system that emphasizes protocol fidelity and hierarchical consultation, resulting in structured rather than expansive interpretations of discretion (see Public Health – Seattle & King County, 2025; Seattle Fire Department, 2024). This mechanism explains why market pressures produce variation but do not generate expansive autonomy inconsistent with the system's historical trajectory.

Together, these mechanisms demonstrate that path dependency acts as a bounding force on the influence of market structure. Standardized professional preparation, regulatory constraints, and historically rooted organizational expectations ensure that discretion remains limited across system types, even where market pressures encourage assertive or efficiency-

oriented behavior. Market structures can shift how providers navigate uncertainty or prioritize tasks, but they cannot alter the fundamental limits of clinical authority established during EMS's formative period. The consistent presence of these conditioning forces across all five cases supports the expectation that the effects of market structure are shaped, filtered, and ultimately bounded by historical legacies. This mechanism-based interaction sets the foundation for the case analyses that follow.

4.5.4. Case Studies

The case studies in this section evaluate whether the interaction between path dependency and market structure produces the bounded patterns of discretion anticipated in H3. Each jurisdiction, Alameda County, Seattle/King County, Las Vegas/Clark County, Boston, and Pinellas County, operates under distinct market arrangements but shares a common institutional foundation shaped by standardized training, protocol-driven clinical governance, and physician-directed oversight. These cases therefore allow for systematic assessment of how market incentives influence discretion within the structural limits established by historical legacies. Across all systems, variation appears at the margins of protocolized care rather than in the fundamental boundaries of clinical authority, reflecting the conditioning effects identified in the mechanisms section above. By examining how these forces interact in different organizational environments, the case studies provide empirical leverage for determining whether path dependency constrains market-driven variation in frontline judgment.

4.5.4.1. Case 1: Alameda County Alameda County demonstrates how path-dependent structural constraints shape the extent to which market incentives influence provider discretion. The county's hybrid public–utility model introduces performance requirements and transport-based reimbursement for the contracted ALS provider, while fire-based BLS

responders operate within hierarchical command structures that emphasize procedural conformity (see Alameda County Emergency Medical Services Agency, 2023; Alameda County Emergency Medical Services Agency, 2024). Although ALS crews face incentives that encourage rapid scene times and transport-oriented interpretations of ambiguity (see Alameda County Emergency Medical Services Agency, 2023; Alameda County Emergency Medical Services Agency, 2025), their discretion remains bounded by standardized protocols, narrow scope-of-practice definitions, and the requirement for physician authorization to deviate from established pathways California Emergency Medical Services Authority, 2023; Centers for Disease Control and Prevention, 2024. These structural features appear to reflect enduring national constraints that limit the degree to which market pressures can expand clinical judgment. As a result, market incentives seem to shape behavior at the margins but do not alter the fundamental boundaries of discretion.

The interaction between path dependency and market structure is further evident in how ALS crews reconcile contractual expectations with regulatory requirements. Performance benchmarks encourage efficient scene management, yet providers must still follow protocolized care and escalate uncertainty through medical control (see Alameda County Emergency Medical Services Agency, 2023; Alameda County Emergency Medical Services Agency, 2024). Contractual response-time expectations influence how ALS crews prioritize tasks, but deviations remain subject to physician approval (see Alameda County Emergency Medical Services Agency, 2023; Alameda County Emergency Medical Services Agency, 2025). BLS crews, by contrast, adhere closely to conservative pathways rooted in fire-service identity, reflecting the enduring influence of historical professional norms (see Alameda County Emergency Medical Services Agency, 2023; Shah, 2006). These patterns show that organizational incentives produce

variation across provider groups, but all variation occurs within the narrow discretionary space established by historical institutional design.

Overall, Alameda County provides clear evidence that market pressures interact with, but do not override the constraints established through standardized training, regulatory oversight, and historical professional identity. ALS crews exhibit behavior consistent with performance-driven incentives, while BLS crews reflect fire-based conservatism; however, both remain limited by protocol-driven governance and hierarchical consultation requirements. This bounded variation aligns with H3's expectation that path dependency shapes the magnitude and direction of market effects on discretion.

4.5.4.2. Case 2: Seattle/ King County Seattle/King County offers an additional illustration of how path-dependent constraints bound the influence of market incentives on frontline discretion. The system's dual-tier structure pairs fire-based BLS first response with private ALS transport operating under contractual performance requirements, yet both tiers function under the same protocols, medical oversight, and regulatory framework (see Public Health – Seattle & King County, 2025; Seattle Fire Department, 2024). These shared structural elements derive from the standardized national model that emphasizes protocol adherence, limited scope, and physician-directed authority. BLS providers consistently follow strict protocol pathways and escalate uncertainties upward, demonstrating the persistence of historically rooted conservative norms (see Public Health – Seattle & King County, 2025; Seattle Fire Department, 2024). Even where ALS units respond to performance metrics, their discretion remains

circumscribed by this overarching regulatory environment (see Public Health – Seattle & King County, 2025).

Market incentives in the private ALS tier produce measurable shifts in behavior, but these shifts occur only within the limits established by the historical foundations of EMS. ALS crews prioritize rapid scene management and transport decisions due to contractual performance benchmarks, yet they must still follow defined care pathways and obtain authorization for deviations (see Public Health – Seattle & King County, 2025; Clark County & MedicWest Ambulance, 2016). ALS providers in King County exhibit performance-driven decision-making shaped by contract accountability, while simultaneously operating under the same clinical constraints that govern the fire-based BLS tier (see Public Health – Seattle & King County, 2025; Seattle Fire Department, 2024). This demonstrates that market pressures may alter the speed, sequencing, or framing of decisions, but not the fundamental boundaries of autonomy.

These bounded patterns are further evident in how the two tiers respond to clinical ambiguity. BLS providers rely heavily on supervisory escalation and default to conservative interpretations, reflecting the technician-oriented identity embedded in the system's historical development (see Shah, 2006; Seattle Fire Department, 2024). ALS providers navigate uncertainty with somewhat greater flexibility due to performance expectations, but protocol-driven pathways and oversight requirements ultimately limit the scope of their independent judgment (see Public Health – Seattle & King County, 2025). The inability of either tier to operate outside the narrow discretionary space defined by standardized training and clinical governance confirms the conditioning role of historical legacies. Seattle/King County therefore provides strong evidence that market structures influence discretion, but only within the boundaries established by long-standing institutional commitments.

4.5.4.3. Case 3: Las Vegas/ Clark County

Las Vegas/Clark County represents one of the strongest market environments among the cases and therefore provides a critical test of whether path dependency constrains the effects of organizational incentives on discretion. The franchise-based private EMS model ties provider behavior to fee-for-transport reimbursement and to contractual performance requirements that carry financial consequences for noncompliance (see Clark County & MedicWest Ambulance, 2016; Clark County Board of Commissioners, 2025). These incentives encourage providers to manage scene time efficiently and default to transport-oriented decisions in clinically ambiguous situations Clark County & MedicWest Ambulance, 2016; Southern Nevada Health District, 2015. Transport-based reimbursement aligns strongly with clinical and operational decisions (Centers for Medicare & Medicaid Services, 2023; Clark County Board of Commissioners, 2025), illustrating the influence of market pressures on frontline judgment. Yet despite these strong incentives, provider autonomy remains bounded by standardized protocols, narrow scope-of-practice rules, and the universal requirement for physician oversight (see Institute of Medicine, 2007; National Association of State Emergency Medical Services Officials & National Highway Traffic Safety Administration, 2019).

The interaction between market structure and path dependency becomes evident when examining how ALS crews navigate uncertainty. Although crews may feel pressure to expedite decisions or prioritize transport due to performance expectations, they must still follow protocolized care pathways and escalate deviations to medical control (see Clark County & MedicWest Ambulance, 2016; Southern Nevada Health District, 2015). These requirements reflect the enduring regulatory infrastructure established during the system's formative decades and remain unchanged despite the county's market-intensive design. Even in high-pressure

market environments, providers cannot exceed the limits of protocol-defined authority (see National Association of State Emergency Medical Services Officials & National Highway Traffic Safety Administration, 2019; Southern Nevada Health District, 2015), demonstrating that historical institutional legacies constrain the discretionary impact of contemporary incentives. Market structure affects the texture of decision-making but not its outer bounds.

The persistence of these boundaries is further illustrated by how providers reconcile clinical nuance with operational metrics. While contractual benchmarks shape how quickly crews must move through assessment and scene management, they do not permit expanded clinical interpretation beyond what national standards and state regulations allow (see Clark County & MedicWest Ambulance, 2016; Clark County Board of Commissioners, 2025). Supervisory review, case auditing, and physician consultation continue to anchor provider actions within a narrow discretionary range (see Centers for Medicare & Medicaid Services, 2023; Southern Nevada Health District, 2015). The consistency of these constraints across cases indicates that path dependency limits variation even in systems with strong competitive pressures. Las Vegas/Clark County therefore demonstrates that market-driven incentives influence how discretion is exercised, but not the structural limits of that discretion.

4.5.4.4. Case 4: Boston Boston provides an instructive example of how path-dependent institutional constraints shape discretionary behavior even in a municipally operated EMS system with relatively limited exposure to competitive market incentives. As a standalone public agency funded primarily through municipal appropriations, Boston EMS does not face the contractual pressures or revenue-dependent incentives characteristic of private or hybrid systems Boston Emergency Medical Services, n.d.-a; Boston Emergency Medical Services, n.d.-b. Nevertheless, provider discretion remains circumscribed by standardized national curricula,

narrow statutory scope-of-practice definitions, and protocol-driven clinical governance (see Institute of Medicine, 2007; National Association of State Emergency Medical Services Officials & National Highway Traffic Safety Administration, 2019). These structural boundaries reflect the enduring technician-oriented model embedded in the early institutional development of EMS and continue to shape provider expectations and behavior. As a result, Boston offers a case in which path dependency, rather than market structure, constitutes the primary determinant of the limits of autonomy.

Within this path-dependent framework, the municipal setting produces modest variation in how providers navigate clinical uncertainty. Administrative rather than contractual performance expectations allow for cautious interpretive flexibility within protocol confines (see Boston Emergency Medical Services, n.d.-a; Office of Emergency Medical Services, 2024), and supervisors may support context-sensitive decision-making so long as it remains within established clinical pathways (see Boston Emergency Medical Services, n.d.-b). However, the requirement for physician authorization to deviate from protocols and the centrality of protocolized care continue to define the upper limits of discretion (Institute of Medicine, 2007; Office of Emergency Medical Services, 2024). Documentation indicates that Boston's clinical governance model promotes reflective practice without expanding the formal boundaries of EMT or paramedic authority (see Boston Emergency Medical Services, n.d.-a; Office of Emergency Medical Services, 2024). This demonstrates that governance form can influence the *texture* of discretionary action but does not override historical constraints.

Boston also illustrates the enduring influence of professional identity shaped by early EMS development. The agency's emphasis on clinical competence, procedural reliability, and public-service accountability (see Boston Emergency Medical Services, n.d.-a; Boston

Emergency Medical Services, n.d.-c) aligns with the technician-oriented expectations embedded in national training and oversight structures (see Brooks et al., 2016; Shah, 2006). Providers therefore balance situational judgment with a strong adherence to protocol-defined care (see Boston Emergency Medical Services, n.d.-a; Office of Emergency Medical Services, 2024), reflecting the combined effects of municipal culture and path-dependent constraints. The consistency of these patterns with those observed in less market-intensive systems supports H3's claim that historical legacies condition the influence of organizational incentives on discretion. Boston thus demonstrates that limited market pressures do not translate into expanded autonomy due to the persistent boundaries established by EMS's institutional origins.

4.5.4.5. Case 5: Pinellas County Pinellas County's public–utility model highlights how path-dependent institutional constraints shape the influence of market incentives within hybrid EMS structures. The county retains strong administrative and clinical governance while contracting multiple private providers to deliver ALS transport (see Pinellas County Government, n.d.; Florida PatientCare EMS Solutions, n.d.). This arrangement embeds both public oversight and private-sector operational incentives, creating a mixed environment in which market forces influence provider behavior but remain bounded by standardized protocols, narrow scopes of practice, and physician-directed oversight. These structural constraints reflect enduring national models of EMS practice and limit the extent to which organizational pressures can expand provider autonomy. As a result, Pinellas County presents a setting in which both market incentives and historical legacies jointly shape discretionary action.

Market pressures in Pinellas arise primarily through performance metrics tied to contract evaluation. Contracted providers must meet county-specified response times, unit availability requirements, and quality indicators (see Audit of Sunstar Ambulance Contract, 2024; Pinellas

County Government, n.d.), and these expectations influence how crews manage scene time and interpret ambiguous clinical presentations (Audit of Sunstar Ambulance Contract, 2024; Florida PatientCare EMS Solutions, n.d.). However, providers must still adhere to protocolized care pathways and escalate deviations through medical control, demonstrating the persistence of regulatory limits on autonomy (see National Association of State Emergency Medical Services Officials & National Highway Traffic Safety Administration, 2019; Pinellas County Government, n.d.). Contracted ALS units exhibit behavior patterned by both county oversight and transport-driven reimbursement, yet remain within the narrow discretionary boundaries defined by standardized clinical governance (see Audit of Sunstar Ambulance Contract, 2024; Pinellas County Government, n.d.). This illustrates the filtering effect of path dependency: market structure can shift the emphasis of decision-making but cannot alter its fundamental constraints.

The layered identity of the Pinellas system further reinforces these bounded patterns. Contracted EMS providers operate within corporate cultures emphasizing operational performance (see Florida PatientCare EMS Solutions, n.d.), yet they also function within a broader public-safety network anchored in county authority and standardized training (see Pinellas County Government, n.d.; National Association of State Emergency Medical Services Officials & National Highway Traffic Safety Administration, 2019). These dual expectations appear to encourage procedural reliability and conservative clinical judgment, reflecting the technician-oriented professional identity embedded in EMS's early development. The consistency of this behavior with other systems, regardless of differences in market intensity, supports H3's claim that historical institutional legacies condition the effects of organizational

incentives. Pinellas County therefore demonstrates that hybrid market structures shape how discretion is exercised, but path dependency ultimately determines its limits.

4.5.5. H3 Mechanism Tests

These mechanism tests evaluate whether the interaction effects predicted by H3 appear across the five jurisdictions and whether empirical patterns match the expectation that market-driven variation is shaped and bounded by path-dependent structural constraints. The analysis applies smoking-gun, hoop, and straw-in-the-wind tests to determine whether market incentives alter discretionary behavior only within limits imposed by standardized training, protocol-driven governance, and physician-directed oversight. Because all systems operate under the same foundational regulatory and curricular architecture, differences in the magnitude and expression of discretion can be attributed to organizational incentives only if they remain consistent with these structural constraints. This shared institutional foundation provides the analytic leverage needed to assess whether variation is genuinely bounded, as H3 predicts.

4.5.5.1. Smoking-Gun Tests Smoking-gun evidence for H3 requires clear confirmation that market incentives shape discretion differently across systems, but never beyond the structural limits imposed by path dependency. The clearest example appears in Seattle/King County. Private ALS units exhibit "performance-driven decision-making," adjusting scene management and transport decisions in response to contractual benchmarks (see Public Health – Seattle & King County, 2025); yet, despite these market pressures, ALS crews remain bound by the same countywide protocols and medical oversight requirements as the fire-based BLS tier (see Public Health – Seattle & King County, 2025; Seattle Fire Department, 2024). Evidence demonstrates that ALS units cannot exceed protocol-defined authority and must escalate deviations through physician consultation, confirming that market structure influences

discretion only within path-dependent boundaries. BLS crews, despite operating under the same structural constraints, respond conservatively due to fire-service culture, reinforcing the idea that market structures shift behavior within, but never beyond, the limits established by historical legacies.

Las Vegas/Clark County offers a second strong smoking-gun pattern. The franchise-based private system exposes crews to intensive transport-driven reimbursement and contract enforcement, producing predictable transport-oriented behavior and rapid scene management (see Clark County & MedicWest Ambulance, 2016; Clark County Board of Commissioners, 2025). Transport-based reimbursement aligns strongly with clinical and operational decisions (see Centers for Medicare & Medicaid Services, 2023), demonstrating the influence of market pressure. Yet even in this highly market-driven system, crews remain bound by protocolized care pathways and must seek authorization to deviate (see National Association of State Emergency Medical Services Officials & National Highway Traffic Safety Administration, 2019; Southern Nevada Health District, 2015), confirming that historical constraints continue to define the outer boundaries of discretion. These patterns strongly support H3 by showing that market incentives operate only within limits established by path dependency.

4.5.5.2. Hoop Tests Hoop tests assess whether necessary conditions for the interaction mechanism are present. The first necessary condition, that systems differ meaningfully in market structure, is met across the five cases, which include fire-based, municipal, private, and public–utility models. The second condition, that historical constraints are uniform across cases, is also satisfied: every system relies on standardized national curricula, state-adopted scope-of-practice language, protocol-driven clinical governance, and universal physician oversight. State statutes describing EMTs as performing “specified skills within a

limited scope" illustrate the consistency of these historical constraints. Because structural limits are held constant while market environments vary, the analytic conditions for testing H3 are present.

A third necessary condition for H3 is that market incentives produce variation in discretion that does not exceed the standardized structural limits. This condition is satisfied across cases. In King County, market pressures alter ALS decision-making, but ALS crews remain bound by protocols identical to those followed by the conservative fire-based BLS tier (see Public Health – Seattle & King County, 2025; Seattle Fire Department, 2024). In Las Vegas, intense market incentives influence operational behavior but do not permit expanded clinical authority beyond state-defined scope (see Clark County & MedicWest Ambulance, 2016; Southern Nevada Health District, 2015). And in Boston, the absence of strong market pressures does not result in expanded autonomy because historical constraints remain fixed (Boston Emergency Medical Services, n.d.-a; Institute of Medicine, 2007). The fact that no system exhibits discretion beyond protocolized limits confirms that structural boundaries condition market-driven variation.

4.5.5.3. Straw-in-the-Wind Tests Straw-in-the-wind evidence provides further support for H3 by demonstrating consistent but not definitive patterns aligned with the expected interaction. Systems with strong market incentives, such as Las Vegas/Clark County and the private ALS tier in King County, show tighter coupling between performance metrics and clinical decision-making (see Clark County & MedicWest Ambulance, 2016; Public Health – Seattle & King County, 2025), yet their discretion remains confined within standardized pathways (National Association of State Emergency Medical Services Officials & National Highway Traffic Safety Administration, 2019). Systems with weaker market incentives, such as

Boston or the fire-based BLS tiers, display conservative, procedural behavior that closely mirrors path-dependent expectations (see Boston Emergency Medical Services, n.d.-a; Seattle Fire Department, 2024; Shah, 2006). These moderate differences align with H3's expectation that market structures generate variation only at the margins of the path-dependent foundation. Another straw-in-the-wind pattern appears in hybrid systems such as Alameda and Pinellas. Despite the presence of private transport providers and contractual performance metrics, neither jurisdiction exhibits discretionary patterns that exceed structural limits set by standardized protocols and scope-of-practice definitions. Providers adjust behavior in response to operational pressures, but they do not demonstrate expanded clinical autonomy. This convergence across market types indicates that historical legacies act as a stabilizing force, producing bounded variation across systems with otherwise divergent incentive structures**.** While not definitive on their own, these patterns reinforce the plausibility of H3.

4.5.6. H3 Alternative Explanations

Several alternative explanations could account for variation in EMS discretion across jurisdictions, yet none can fully explain the bounded, patterned differences anticipated by H3. One alternative is that liability environments independently shape provider behavior by incentivizing conservative decisions regardless of organizational or historical constraints. However, the cases reveal that liability pressures are relatively uniform across jurisdictions and do not map onto differences in discretion (Institute of Medicine, 2007; Shah, 2006). In Seattle/King County, for example, the private ALS and fire-based BLS tiers operate under the same legal environment, yet their behavior diverges according to organizational incentives rather than liability concerns Public Health – Seattle & King County, 2025. This indicates that legal

exposure may influence conservatism but does not determine the interaction between market forces and structural constraints.

Another potential explanation is that differences in clinical complexity or call mix drive variation in discretionary behavior. If this were the case, jurisdictions with similar call types should exhibit similar patterns of autonomy. Yet systems with comparable acuity levels, such as King County, Boston, and Las Vegas, display different discretionary patterns that align with organizational incentives but never exceed the standardized constraints established by path dependency (see Boston Emergency Medical Services, n.d.-a; Clark County & MedicWest Ambulance, 2016; Public Health – Seattle & King County, 2025). The divergence between private ALS and fire-based BLS in King County, despite serving similar call types under identical clinical governance (see Public Health – Seattle & King County, 2025), directly challenges the idea that acuity drives variation. Clinical demands shape the context of decision-making, but not the limits of discretion.

Regulatory variation might also appear to explain differences in provider autonomy. However, standardized national training curricula, state-adopted scope-of-practice language, and universal physician oversight constrain EMS practice uniformly across jurisdictions (see Institute of Medicine, 2007; National Association of State Emergency Medical Services Officials & National Highway Traffic Safety Administration, 2019; New York State Department of Health Bureau of Emergency Medical Services, 2010). These structural elements remain stable regardless of market form and establish the formal limits within which discretion can vary. State statutes that continue to define EMT roles as performing specified skills within a limited scope highlight the persistence of these constraints. Because the regulatory foundation is consistent

across all cases, it cannot explain why market incentives generate variation but never expanded autonomy beyond protocol boundaries.

Organizational culture constitutes a final plausible alternative explanation. Fire-based systems emphasize hierarchical command and procedural conservatism, while private systems emphasize efficiency and contractual compliance Boston Emergency Medical Services, n.d.-a; Seattle Fire Department, 2024; Shah, 2006. Cultural expectations do shape some aspects of decision-making, particularly the interpretive frame providers bring to ambiguity. Yet culture alone cannot account for the fact that no system, regardless of organizational identity, exhibits discretionary behavior beyond the narrow range set by standardized training and clinical oversight (Institute of Medicine, 2007; National Association of State Emergency Medical Services Officials & National Highway Traffic Safety Administration, 2019). The fact that private ALS units in King County exhibit performance-driven behavior while remaining anchored to the same structural limits as conservative BLS providers demonstrates that culture operates within, not instead of, path-dependent constraints.

These alternative explanations provide partial insight into localized variation but do not account for the consistent, bounded patterns observed across diverse market structures. Liability, clinical complexity, regulatory differences, and organizational culture influence day-to-day decision-making but cannot explain why discretion never expands beyond the limits imposed by historical legacies. The interaction of market incentives and path-dependent constraints therefore offers the strongest explanation for the patterns documented across all five jurisdictions, as variation remains predictable yet structurally confined.

4.5.7. H3 Findings

The evidence across the five jurisdictions strongly supports H3: path dependency conditions the influence of market structure on professionals' level of discretion. Market incentives shape how EMTs and paramedics interpret ambiguity, manage scene time, and navigate operational pressures, but these effects do not extend beyond the structural limits imposed by standardized training, narrow scope-of-practice definitions, and protocol-driven clinical governance. Results indicate that even in the most market-intensive systems, such as Las Vegas/Clark County, provider autonomy remains circumscribed by regulatory requirements and the universal need for physician authorization to deviate from established pathways. The consistency of these constraints across all cases indicates that historical legacies continue to define the outer boundaries of discretion regardless of organizational form. Market structure produces variation, but only within these inherited limits.

Mechanism tests reinforce this conclusion. Smoking-gun evidence from Seattle/King County demonstrates that private ALS units modify behavior in response to contractual benchmarks, yet remain bound by the same protocolized framework that governs the more conservative fire-based BLS tier. Similarly, Las Vegas/Clark County exhibits strong transport-oriented behavior shaped by fee-for-transport reimbursement, but providers still escalate deviations through medical control, confirming the continued influence of path-dependent oversight structures. Hoop tests confirm the presence of necessary conditions, including uniform structural constraints across cases and meaningful variation in market incentives, while straw-in-the-wind tests reveal consistent but bounded variation aligned with H3. Together, these tests support the expectation that market incentives produce differences in discretionary practice only within the restrictions established by historical institutional design.

Findings further indicate that alternative explanations, including liability environments, clinical complexity, regulatory differences, and organizational culture, do not adequately account for the observed patterns of discretion. These factors either operate uniformly across jurisdictions or vary in ways that do not align with the documented differences. In contrast, the interaction of market pressures and path-dependent structural limits provides a coherent explanation for why no system displays discretionary behavior beyond the narrow range defined by standardized training and protocol-driven oversight. The convergence of these analytic layers strongly supports the claim that path dependency shapes both the magnitude and character of market-driven variation in EMS discretion. H3 is therefore confirmed: market structure influences professional autonomy, but its effects are consistently conditioned and bounded by the enduring institutional architecture of the U.S. EMS system.

4.6. Conclusion

This chapter examined how discretion in the U.S. EMS system emerges from the interaction of historical institutional development and contemporary organizational environments. The analysis showed that the system's foundational design, rooted in a technician-oriented identity, standardized national curricula, protocolized clinical governance, and physician-directed oversight, created enduring structural constraints that continue to define the outer boundaries of EMT and paramedic autonomy. These path-dependent features remained visible across all jurisdictions and provided the institutional baseline upon which contemporary variation unfolds.

Within this structural foundation, market structures shape how providers navigate clinical ambiguity, operational expectations, and supervisory relationships. Case evidence demonstrated that performance metrics, revenue incentives, hierarchical arrangements, and organizational

identity produce patterned differences in frontline judgment across fire-based, private, municipal, and hybrid systems. However, these differences consistently occurred within the narrow discretionary space established by historical legacies. Market structures influenced the *texture* and *direction* of decisions, not the fundamental limits of clinical authority.

The three hypotheses collectively reveal that discretion in U.S. EMS is neither uniform nor unconstrained. H1 showed that core boundaries on autonomy are historically rooted; H2 demonstrated that market structure generates predictable but modest variation; and H3 confirmed that this variation is conditioned by the enduring institutional architecture established in the system's formative decades. Across all cases, providers operated within a highly standardized regulatory environment that shaped how organizational incentives translated into practice. The findings therefore indicate that discretion in EMS is best understood as a bounded phenomenon, structured by the intersection of path-dependent constraints and differentiated market environments.

Chapter 5 England Empirical Chapter

5.1. Vignette

It begins with a phone call—but first, a choice.

When the pain tightens across your chest and the room tilts just enough to make standing feel risky, you dial 999. The operator answers almost immediately: “Emergency. Which service?” Police, fire, ambulance, or coastguard. You say “ambulance.” The line transfers.

The voice on the other end is calm and efficient, asking a series of questions you did not expect to answer so quickly: your location, your age, whether you are breathing normally, whether the pain is spreading. As you speak, the call handler types, following a scripted triage system that classifies your symptoms in real time. Somewhere beyond your awareness, your answers are translated into a category that determines what happens next. Unlike systems in which dispatch first determines which service will attend, here the institutional boundary is already defined. You asked for an ambulance; an ambulance service now manages the response.

An ambulance is dispatched, but not immediately. You are told help is on the way and that you should remain where you are. The decision about how urgently you need to be seen has already been made—not by the crew who will eventually arrive, but by a centralized clinical prioritization system designed to balance risk, demand, and limited resources across an entire region. Police are not sent unless specific safety concerns arise. Fire services do not routinely attend medical calls. The response remains within a single, nationally integrated ambulance system.

When the ambulance does arrive, it is staffed by clinicians, not drivers—paramedics trained to assess, treat, and decide, not simply to transport. Inside your living room, they take your blood pressure, run an ECG, and ask about your medical history, your medications, and how long the pain has lasted. They do not rush you to the stretcher. Instead, they pause, confer quietly, and explain what they think is happening. One calls a clinical support desk to discuss the ECG results. Another checks available referral pathways on a tablet. You assume the ambulance ride is inevitable. They do not.

After several minutes, they tell you that you do not need to go to the emergency department right now. The pain is likely musculoskeletal. They can arrange for you to see your GP or attend a same-day urgent care clinic, and they provide clear instructions about when to call back if your symptoms change. The ambulance remains parked outside your house as they complete the documentation required to justify the decision not to convey you. When they leave, the system records not only that you were seen, but that you were appropriately not transported.

At no point were you asked where you preferred to go, which provider you wanted, or how much the visit would cost. There was no competition among responding agencies and no uncertainty about which service would appear. The institutional structure was defined from the moment you said “ambulance.” Yet within that centralized framework, a series of consequential decisions were made—about urgency, risk, and disposition—by clinicians operating within a system that grants discretion, but only in specific, carefully governed ways.

5.2. Introduction

The vignette illustrates a system in which critical decisions are made quickly, centrally coordinated, and largely invisible to the person receiving care. From the initial triage call to the decision not to transport, professional discretion is exercised at multiple points, yet always

within a tightly structured framework. The patient does not choose a provider, negotiate a destination, or consent to a price. Instead, discretion is embedded in standardized triage protocols, clinical assessment on scene, and system-managed pathways designed to balance individual risk against population-level demand. This chapter takes that experience as its point of departure, by examining how such discretion became structured within the English ambulance system and how institutional arrangements shape its use.

Rather than treating professional discretion as an attribute of individual clinicians or as a byproduct of clinical expertise alone, the chapter conceptualizes discretion as an institutional outcome. It situates frontline judgment within the historical development and governance architecture of the National Health Service, where ambulance services have long been organized as a publicly owned, centrally coordinated component of emergency care. England offers a particularly instructive case due to the expansion of discretion within a non-market system, which allows the analysis to trace how professional authority develops in the absence of competition, price signals, and provider choice.

The analysis unfolds in three interconnected parts. It first traces the historical incorporation of ambulance services into the NHS, identifying the institutional decisions that shaped coordination, accountability, and frontline judgment. It then examines how the non-market organization of ambulance provision shaped the incentive environment and performance regimes through which discretion is enabled and constrained. The chapter concludes by synthesizing these strands to show how historical legacies conditioned later governance reforms, shaping where and how discretion expanded. In doing so, the chapter explains how the decisions depicted in the vignette emerge from an institutional system that grants discretion selectively and in service of the collective, rather than market objectives.

5.3. H1 Analysis: How Path Dependency Influences Discretion

H1 posits that path dependency influences professionals' level of discretion in the English ambulance system by structuring how authority and judgment develop over time. Early institutional decisions established trajectories that later reforms layered onto rather than displaced, progressively narrowing the range of feasible alternatives. Data suggest that the critical juncture for England is the National Health Service Act 1946, which incorporated ambulance services into a centralized national health system and defined ambulance provision as a statutory public function under public authority control (National Health Service Act, 1946). This settlement embedded ambulance services within nationally governed medical infrastructure, oriented their role toward patient conveyance, and located clinical authority outside the ambulance profession itself. Subsequent reforms appear to have reinforced this arrangement, allowing professional discretion to expand gradually but only through centrally sanctioned and tightly governed mechanisms. Contemporary ambulance clinicians therefore exercise meaningful discretion in areas such as assessment, non-conveyance, and referral, yet this discretion remains conditioned by national clinical guidelines, professional regulation, and performance governance. The analysis that follows traces this institutional trajectory and assesses whether the observed pattern of discretion is consistent with a path-dependent explanation.

5.3.1. Early National Design

The early national design of ambulance services in England was established by the National Health Service Act 1946, which constituted the critical juncture shaping subsequent patterns of professional discretion. The Act created a comprehensive national health service and imposed a statutory duty on public authorities to provide ambulance services as part of that

system. Section 27 of the Act specifically assigned responsibility for ambulance provision to local health authorities, authorized coordination across authorities, and permitted arrangements with other providers, while reserving regulatory authority to the Minister of Health (National Health Service Act, 1946). This design decision appears to have incorporated ambulance services firmly within the public health apparatus from the outset and eliminated the pre-war heterogeneity in ambulance provision by anchoring services to a nationally coordinated institutional framework.

Crucially, the National Health Service Act 1946 defined ambulance services as a health service function focused on patient conveyance rather than as an autonomous clinical profession. The Act did not define ambulance clinical practice, training standards, or professional authority, thereby situating ambulance personnel within a subordinate role relative to other medical actors and placing clinical oversight outside the ambulance workforce itself (National Health Service Act, 1946). Moreover, early Ministry of Health circulars issued to implement Section 27 seem to have reinforced this arrangement by clarifying administrative responsibilities, operational expectations, and reporting requirements for ambulance services, without expanding clinical discretion or professional autonomy. Together, results indicate that these early institutional choices structured ambulance services as centrally governed, administratively managed components of the NHS, establishing a transport-oriented role with limited discretion that would persist and condition later developments.

5.3.2. Reinforcement Period

The institutional trajectory established by the National Health Service Act 1946 appears to have been reinforced in the decades that followed through administrative guidance and the continued marginalization of ambulance services within early NHS professional reform. More

specifically, it is apparent that the Ministry of Health Circulars issued between 1948 and the 1950s operationalized Section 27 of the Act by clarifying local authority responsibilities for ambulance provision, staffing, vehicles, and reporting requirements, while preserving ambulance services as administratively managed transport functions rather than clinical occupations (Ministry of Health Circulars, 1948–1950s). Rather than expanding clinical authority or redefining professional roles, an analysis of data suggests that these circulars reiterated expectations of standardized service delivery under public oversight, consistent with the original statutory design.

Findings indicate that reinforcement was also evident in what contemporary professional reforms did not address. The Porritt Report (1962), for instance, examined medical staffing structures, professional hierarchies, and career progression within hospital services, but ambulance services remained outside its remit. Data indicate that, at the time, ambulance provision continued as a local authority responsibility under Section 27 of the National Health Service Act 1946, and its absence from hospital-centered reform reflected the persistent classification of ambulance work as ancillary rather than clinical (Porritt Report, 1962). Through both administrative clarification and selective professional reform, the early postwar period apparently sustained a transport-oriented conception of ambulance services and deferred the development of professional discretion, even as other parts of the NHS evolved institutionally.

5.3.3. Institutional Lock-In

Institutional lock-in in the English ambulance system seems to have occurred as responsibility for ambulance services was consolidated within the National Health Service and subsequent reforms deepened, rather than displaced, centralized governance. Legislation transferred ambulance services from local authorities to newly established NHS health

authorities, embedding ambulance provision more deeply within national administrative and managerial hierarchies (National Health Service Reorganisation Act, 1973). Analysis indicate that this shift did not alter the clinical status of ambulance work or expand professional discretion; instead, it stabilized centralized authority by situating ambulance services within the same governance framework as hospitals and other NHS services. By this stage, the early design choice to treat ambulance services as standardized public infrastructure appears to have become increasingly resistant to reversal, as authority over organization, staffing, and service configuration was now firmly located within national NHS structures.

Subsequent developments in the professional role of ambulance personnel remained embedded within established institutional arrangements. The Millar Report (1979), for instance reviewed the role, organization, and future development of the ambulance service and proposed an expanded clinical function, assuming continued NHS control (Millar Report, 1979). Later reviews and performance frameworks, including the Bradley Report (2005), the introduction of Ambulance Quality Indicators (2011), the Ambulance Response Programme evaluations (2016–2017), and strategic guidance in the NHS Long Term Plan (2019), appear to have extended clinical discretion while embedding it within national standards, regulatory oversight, and performance regimes (Bradley Report, 2005; NHS England, 2011; NHS England, 2017; NHS England, 2019). Results indicate that this led to institutional sedimentation rather than rupture: discretion expanded, but only through nationally sanctioned and centrally managed mechanisms, consistent with a path-dependent pattern of constrained change.

5.3.4. Mechanism Tests

The preceding analysis traced how early institutional decisions structured and reinforced ambulance services in England; the question that follows is whether this sequence plausibly

accounts for later changes in professional discretion. Smoking gun, hoop, and straw-in-the-wind tests are used to examine whether early institutional design and subsequent reinforcement shaped later discretion outcomes. In particular, the analysis examines whether expansions in discretion occurred through centrally authorized reforms that layered onto institutional arrangements established by the National Health Service Act 1946, rather than through decentralization or professional capture.

5.3.4.1. Smoking-Gun Tests The strongest evidence supporting a path dependency explanation in the England case lies in the finding that expansions in ambulance clinician discretion occurred exclusively through nationally sequenced and centrally authorized reforms, rather than through decentralization, deregulation, or bottom-up professional capture. The initial institutional trajectory was established by the National Health Service Act 1946, which incorporated ambulance services into the national health system and situated authority over organization and oversight outside the ambulance workforce itself (National Health Service Act, 1946). Subsequent developments do not appear to have deviated from this arrangement; instead, discretion expanded only through reforms that preserved centralized governance.

This pattern is visible across successive reform moments. The National Health Service Reorganisation Act 1973 transferred ambulance services from local authorities to NHS health authorities, further consolidating national control without redefining ambulance clinical practice or expanding professional autonomy (National Health Service Reorganisation Act, 1973). Later professional developments seems to have followed the same institutional logic. The Millar Report (1979) proposed an expanded clinical role for ambulance crews, but did so on the explicit assumption of continued NHS governance rather than professional independence or institutional separation. Similarly, the Bradley Report (2005) endorsed greater clinical assessment, treatment,

and referral capacity for ambulance services, framing these changes as components of a nationally managed urgent and emergency care system (Millar Report, 1979; Bradley Report, 2005).

More recent performance and evaluation frameworks appear to reinforce this pattern. The introduction of Ambulance Quality Indicators (2011) and the evaluation of the Ambulance Response Programme (2016–2017), for instance, expanded discretion in areas such as prioritization, non-conveyance, and on-scene clinical decision-making, while simultaneously embedding these practices within national performance measurement and oversight regimes (NHS England, 2011; NHS England, 2017). Data suggest that discretion did not expand through mechanisms inconsistent with the original institutional design. The consistent reliance on centrally authorized reforms, together with the absence of alternative pathways to discretion, constitutes direct evidence that later discretion outcomes were conditioned by the institutional path established in 1946 rather than by contingent or exogenous factors.

5.3.4.2. Hoop Tests For a path dependency explanation to remain plausible, later reforms must exhibit continuity with, rather than displacement of, the institutional arrangements established at the critical juncture. Findings indicate that subsequent reforms in England preserved the centralized governance framework established by the National Health Service Act 1946 rather than dismantling it. Neither structural reorganization nor professional reform appear to have altered national authority over ambulance organization, clinical guidance, or performance oversight; instead, analysis shows how interventions modified the scope of practice within these enduring boundaries (National Health Service Act, 1946).

The National Health Service Reorganisation Act 1973 illustrates this continuity. Although the Act transferred ambulance services from local authorities to NHS health authorities, it did not

redefine ambulance services as an autonomous profession or alter the centralized logic of control. Responsibility for ambulance provision, therefore, remained embedded within NHS administrative structures, reinforcing national oversight rather than introducing decentralization or professional self-governance (National Health Service Reorganisation Act, 1973). The transfer thus consolidated existing arrangements rather than disrupting the institutional path.

Later professional and service reforms seem to have followed the same pattern. To illustrate, the Millar Report (1979) expanded the envisioned role of ambulance personnel within existing NHS structures and without proposing institutional separation or deregulation. Similarly, the Bradley Report (2005) reframed ambulance services as providers of clinical care within urgent and emergency care pathways while retaining national coordination and accountability. Data further indicate that later frameworks, including Ambulance Quality Indicators (2011) and the Ambulance Response Programme evaluations (2016–2017), adjusted performance expectations without removing national performance governance or regulatory oversight (Millar Report, 1979; Bradley Report, 2005; NHS England, 2011; NHS England, 2017). The persistence of centralized governance across successive reform periods suggested within the data is consistent with an institutional path that remained intact following its establishment in 1946.

5.3.4.3. Straw-in-the-Wind Tests Additional, weaker evidence consistent with a path dependency explanation is visible in the framing and sequencing of reform documents governing ambulance services in England. Findings indicate that across multiple reform moments, policy language emphasizes adaptation, evolution, and rebalancing within existing institutional arrangements rather than rupture or replacement. The Bradley Report (2005) framed changes to ambulance services as a transformation of role within the urgent and emergency care system, not as a departure from NHS governance or performance oversight. This framing reflects

an assumption that reform would occur within established institutional boundaries rather than through structural reconfiguration (Bradley Report, 2005).

This pattern persists in later system-level guidance.The introduction of Ambulance Quality Indicators (2011) and the evaluation of the Ambulance Response Programme (2016–2017) reframed ambulance performance away from a single response-time metric and toward clinically prioritized assessment and outcomes, yet did so by layering new indicators onto existing national oversight mechanisms rather than dismantling them (NHS England, 2011; NHS England, 2017). Similarly, findings indicate that the NHS Long Term Plan (2019) positioned ambulance services as integral components of integrated care systems while continuing to situate their discretion within nationally defined priorities, performance frameworks, and accountability structures (NHS England, 2019).

While none of these elements alone constitutes definitive proof of path dependency, together they provide supporting evidence that reform actors consistently treated existing institutional arrangements as fixed points around which change must be negotiated. The repeated pairing of expanded clinical discretion with new or revised national performance and governance mechanisms seems to suggest high switching costs and institutional inertia, patterns that are compatible with a path-dependent account of how professional discretion evolved in the English ambulance system.

5.3.5. Alternative Explanations

Several alternative explanations could plausibly account for variation in professional discretion among ambulance clinicians in England, but none fully displace a path dependency explanation. One possibility is organizational culture and local managerial norms, which may shape how discretion is exercised across different ambulance trusts. Trust-level variation in risk

tolerance, supervisory expectations, and informal peer norms may influence clinicians' willingness to exercise discretion in areas such as non-conveyance or referral. However, these differences operate within nationally defined clinical guidelines, professional regulation, and performance frameworks, limiting their explanatory reach and positioning them as mediating rather than causal mechanisms.

A second alternative explanation emphasizes the risk, blame, and medico-legal environment, including concern about coronial investigation, professional sanction, or retrospective scrutiny. This dynamic may encourage defensive practice and constrain the use of discretion in ambiguous cases. While this climate plausibly conditions how discretion is exercised, it does not explain the historically sequenced expansion of discretion through national reforms, nor why discretion increased at particular moments rather than remaining uniformly suppressed. Relatedly, education and professional socialization, particularly the move toward degree-level paramedic education, may shape clinicians' confidence, clinical reasoning, and ethical framing of decisions. Yet data suggest that educational change alone cannot account for why discretion expanded only when formally authorized through national frameworks.

Additional situational explanations include workforce pressure and system stress, which may temporarily expand or compress discretion under conditions of high demand, and technological mediation, such as dispatch algorithms or electronic records, which can shape decision-making upstream and accountability downstream. Findings indicate that while these factors help explain short-term variation in practice but do not account for the long-term institutional pattern observed. Across these alternatives, discretion appears to remain structured by enduring national governance arrangements. The persistence of centrally defined clinical standards, performance regimes, and regulatory oversight across periods of reform suggests that

these alternative explanations condition the exercise of discretion but do not replace path dependency as the primary mechanism shaping its development.

5.3.6. H1 Findings

The evidence supports H1: Path dependency influences professionals' level of discretion in the English ambulance system. Findings suggest that early institutional decisions embedded in the National Health Service Act 1946 established ambulance services as centrally governed components of the national health system, structuring their role around standardized provision and external clinical oversight (National Health Service Act, 1946). This institutional trajectory was reinforced rather than displaced through subsequent reforms, including the National Health Service Reorganisation Act 1973, which consolidated ambulance services within NHS administrative structures, and later nationally commissioned reviews and performance frameworks that expanded discretion only within centrally defined boundaries (National Health Service Reorganisation Act, 1973; Millar Report, 1979; Bradley Report, 2005).

Findings further indicate that ambulance clinicians in England acquired greater task and clinical discretion over time, particularly in assessment, non-conveyance, and referral decisions. Yet this discretion remained conditional on national clinical guidelines, professional regulation, and performance governance, as reflected in frameworks such as Ambulance Quality Indicators and the Ambulance Response Programme (NHS England, 2011; NHS England, 2017). The sequencing, form, and constraints of discretion expansion indicates a path-dependent process characterized by institutional layering rather than rupture, in which change occurred through centrally authorized mechanisms that preserved the foundational governance logic established in 1946.

5.4. H2 Analysis: How Market Structures Influence Discretion

Recall, the second hypothesis suggests that the structure of the market influences levels of professionals' discretion within the English ambulance system. Building on the institutional context established earlier, the focus here is on how the organization of ambulance provision as a nationally standardized, non-market service shapes the incentives, constraints, and expectations surrounding discretionary practice. Market structure is treated not as competition or exchange, within the present analysis, but as the configuration of funding arrangements, performance regimes, governance hierarchies, and accountability mechanisms through which ambulance services are coordinated and evaluated. Findings indicate that these structural features shape both the scope and form of discretion exercised by ambulance clinicians in England.

5.4.1. National Standardization of Ambulance Provision

Data suggest that ambulance provision in England is nationally standardized through a series of legislative and policy decisions that deliberately position emergency ambulance services outside competitive market arrangements. The National Health Service Act 1946 established ambulance services as a statutory public function delivered within the national health system, treating ambulance provision as essential public infrastructure rather than a tradable or contestable service (National Health Service Act, 1946). This foundational choice appears to have created a non-market structure by design, with no provision for patient choice, competitive contracting, or price-based incentives in emergency ambulance response.

National standardization was reinforced through subsequent institutional reforms that consolidated ambulance services within NHS organizational hierarchies while preserving their non-competitive status. The National Health Service Reorganisation Act 1973 transferred

ambulance services from local authorities into NHS control and reorganized provision into area-based ambulance services, replacing fragmented local arrangements with regional monopoly providers and removing local discretion over ambulance organization (National Health Service Reorganisation Act, 1973). Later reforms appear to have been introduced market mechanisms elsewhere in the NHS but explicitly withheld from emergency ambulance services. The National Health Service and Community Care Act 1990, which established a purchaser–provider split and quasi-markets in other sectors, did not introduce competitive tendering or provider plurality for emergency ambulance provision, thereby structurally exempting ambulances from NHS marketization (National Health Service and Community Care Act, 1990; Department of Health, 1989).

Further organizational reforms seem to have reinforced standardization without altering market structure. During the late 1990s and early 2000s, ambulance services were constituted as NHS trusts and, in many cases, NHS foundation trusts under the National Health Service and Community Care Act 1990 and the Health and Social Care (Community Health and Standards) Act 2003, introducing corporate governance and managerial accountability without introducing competition or patient choice (Health and Social Care (Community Health and Standards) Act, 2003). National performance management frameworks appear to have subsequently coordinated ambulance services vertically rather than competitively. Response time targets, followed by the introduction of Ambulance Quality Indicators (2011) and later the Ambulance Response Programme, standardized expectations and oversight across England, using benchmarking and audit to govern performance rather than market discipline (Department of Health, 1996; NHS England, 2011; NHS England, 2015; NHS England, 2017). Together, these decisions appear to have established and sustained a nationally standardized, non-market system of ambulance

provision that forms the structural baseline for examining how market structure influences professional discretion.

5.4.2. Mechanisms of Market Influence

An analysis of data suggests that market structure influences professional discretion in England through a set of indirect mechanisms embedded in the organization of ambulance provision. Rather than operating through competition or price signals, it is apparent that the English ambulance system is organized as a nationally standardized, non-market service, with market influence expressed through institutional design rather than exchange. Drawing on national policy, funding, governance, and performance frameworks, the following analysis traces how revenue incentives, hierarchical structure, performance metrics, training investment, medical oversight orientation, and organizational identity shape the conditions under which discretion is exercised. These mechanisms appear to delineate how discretion is enabled and bounded within a non-market system by defining which forms of clinical judgment are supported, constrained, and recognized as legitimate within the English ambulance service.

5.4.2.1. Revenue Incentives Data suggest that revenue incentives in the English ambulance system are structured to remove financial pressure to transport patients, rendering non-conveyance financially neutral and shaping the conditions under which discretion is exercised. Emergency ambulance services are funded through nationally determined payment rules, contracts, and system allocations rather than per-transport or fee-for-service reimbursement. The NHS Payment System explicitly excludes emergency ambulance services from activity-based tariffs, indicating that transport volume does not generate additional revenue for providers (NHS England & NHS Improvement, 2019; NHS England & NHS Improvement, 2022). As a result, findings suggest that discretionary decisions to treat at scene, refer to

alternative pathways, or provide advice do not incur financial penalties at the organizational level.

This incentive structure is reinforced through nationally standardized contractual arrangements. The NHS Standard Contract governs ambulance services through quality, safety, and integration obligations rather than volume-based payment, placing emphasis on defensible clinical judgment, documentation, and appropriate pathway use (NHS England, 2018; NHS England, 2022). These requirements are then translated by ambulance trusts into local protocols and managerial expectations that prioritize appropriateness and risk management over throughput. Because revenue is decoupled from transport activity, discretionary resolution at the point of care remains organizationally tolerable when aligned with clinical guidance and governance requirements.

System-level financial governance further seem to condition how revenue incentives shape discretion. The establishment of Integrated Care Systems under the Health and Care Act 2022 places ambulance services within shared system budgets and holds system leaders accountable for overall flow, demand management, and cost control rather than service-specific activity levels (Health and Care Act, 2022; NHS England & NHS Improvement, 2021). Within this framework, it appears that the discretion to avoid unnecessary conveyance becomes operationally viable and, in some contexts, aligned with system objectives rather than financially costly. Findings suggest, then, that revenue incentives therefore act indirectly, shaping the organizational and system environment in which frontline discretion is exercised rather than prescribing particular clinical choices.

5.4.2.2. Hierarchical Structure Data suggest that the hierarchical structure governing ambulance services in England shapes professional discretion by substituting vertical

coordination and administrative oversight for market competition. Authority over ambulance provision flows through a nationally integrated chain that places ambulance services within NHS organizational hierarchies rather than competitive markets. The National Health Service Reorganisation Act 1973 consolidated ambulance services under NHS control, embedding them within managerial structures responsible for planning, performance, and accountability across defined geographic areas (National Health Service Reorganisation Act, 1973). Subsequent legislation appears to reinforce this arrangement by formalizing NHS trusts and later NHS foundation trusts as the organizational form for ambulance services, granting managerial autonomy without introducing competition or provider choice (National Health Service and Community Care Act, 1990; Health and Social Care (Community Health and Standards) Act, 2003).

At the national level, the Health and Social Care Act 2012 established NHS England as the system steward responsible for commissioning oversight, performance frameworks, and strategic coordination, including for ambulance services (Health and Social Care Act, 2012). This role appears to be exercised through nationally defined performance regimes and service models, such as Ambulance Quality Indicators and the Ambulance Response Programme, which standardize expectations across services and govern performance through benchmarking and audit rather than market exit or price competition (NHS England, 2011; NHS England, 2015; NHS England, 2017). Analysis suggests that it is through these mechanisms that discretion is enabled and bounded by nationally approved parameters that define legitimate clinical judgment.

Hierarchical coordination has been further reinforced through the introduction of Integrated Care Systems, placed on a statutory footing by the Health and Care Act 2022. Results suggest that ambulance services under this framework are positioned as system partners within

integrated urgent and emergency care pathways, accountable to shared system objectives related to flow, demand management, and patient outcomes rather than organizational throughput (Health and Care Act, 2022; NHS England & NHS Improvement, 2021). This arrangement appears to condition discretion by shaping the availability of referral pathways, alternative destinations, and system supports that make non-conveyance or on-scene resolution operationally viable. Hierarchical structure therefore influences discretion indirectly, structuring the decision space through coordinated governance, organizational leadership, and system-level priorities rather than through market signals.

5.4.2.3. Performance Metrics and Administrative Surveillance Performance metrics in the English ambulance system further appear to shape professional discretion by substituting standardized measurement and audit for market discipline. Historically, ambulance performance was governed primarily through response time targets, which seem to have prioritized speed of arrival over clinical appropriateness. These targets were formalized through national performance management frameworks issued by the Department of Health, culminating in the use of response time standards as the dominant indicator of ambulance service performance (Department of Health, 1996). Under this regime, discretion appears to have been constrained by organizational emphasis on rapid conveyance and on-scene turnover, as performance assessment focused narrowly on time-based compliance.

The introduction of Ambulance Quality Indicators (2011) seems to have marked a shift in how performance was measured and governed. AQIs expanded the performance framework beyond response times to include measures related to clinical outcomes, patient experience, and operational effectiveness, thereby broadening the range of discretionary decisions recognized as legitimate at the point of care (NHS England, 2011). Data indicate that by incorporating

indicators linked to assessment quality and patient-centered outcomes, AQIs reduced the singular emphasis on speed and created institutional space for discretion in decisions such as non-conveyance or referral to alternative pathways, when supported by documentation and clinical justification.

This shift appears to have been reinforced through the Ambulance Response Programme, piloted and evaluated between 2015 and 2017, which restructured response categories and performance expectations around clinical acuity rather than uniform time thresholds (NHS England, 2015; NHS England, 2017). Data further suggest that performance measurement was aligned more closely with patient need than transport volume, and subsequent national adoption of the revised response standards embedded this approach within routine performance management. Performance metrics thus operated as a mechanism through which discretion expanded within defined bounds, enabling clinically appropriate judgment while maintaining national oversight through standardized indicators and audit.

5.4.2.4. Training Investment Results further suggest that investment in training within the English ambulance system shapes professional discretion by embedding skill development within a nationally coordinated workforce strategy rather than firm-level competition. The professionalization of the paramedic workforce seems to have been guided by national standards for education, registration, and scope of practice, rather than by market incentives to differentiate services. The transition toward degree-level paramedic education, overseen by national professional and regulatory bodies, appears to have positioned advanced clinical training as a system-wide investment supporting consistent standards of care across services (Health and Care Professions Council, 2014; College of Paramedics, 2019). Training

investment under this model, then, is justified by service quality and patient safety rather than revenue generation.

National workforce planning appears to further reinforce this structure. The NHS Long Term Plan (2019) and subsequent workforce strategies emphasize expanding advanced paramedic roles and enhancing clinical capability to support system objectives such as demand management and care closer to home (NHS England, 2019). Training investment seems to be oriented toward enabling discretion in assessment, treatment, and referral within nationally defined competencies and governance arrangements. Ambulance trusts implement these priorities through standardized education pathways, supervised practice, and credentialing requirements that support discretion while maintaining uniform expectations across services.

Because training investment is centrally coordinated and broadly distributed, it does not appear to function as a competitive differentiator between providers. Instead, it establishes a shared baseline of clinical competence that renders discretionary practice feasible across the system. Discretion, then, is enabled through training but remains a collective capability embedded in a standardized workforce model rather than an individualized or privatized asset. Results suggest that this approach supports professionalized yet bounded discretion, consistent with a market structure in which investment in skills advances system performance rather than competitive advantage.

5.4.2.5. Medical Oversight Orientation Medical oversight in the English ambulance system appears to shape professional discretion by embedding clinical judgment within nationally coordinated governance arrangements rather than delegating authority through market-based accountability. Oversight of ambulance clinical practice is organized through NHS clinical governance systems that emphasize standardization, risk management, and

appropriateness of care. National guidance and regulatory frameworks establish expectations for scope of practice, clinical decision-making, and accountability, positioning discretion as a regulated professional activity rather than an entrepreneurial or revenue-driven function (Health and Care Professions Council, 2014; NHS England, 2019).

The Bradley Report (2005) reframed ambulance services as providers of urgent and emergency clinical care rather than solely transport services, while affirming that expanded discretion should operate within robust clinical governance systems (Bradley Report, 2005). This orientation legitimated discretion through formal oversight while bounding its exercise through protocols, audit, and supervisory review. Subsequent system reforms, including the implementation of Ambulance Quality Indicators and the Ambulance Response Programme, further integrated clinical oversight into performance management by linking discretionary decisions to documented clinical rationale and outcome monitoring (NHS England, 2011; NHS England, 2017).

At the organizational level, ambulance trusts implement national oversight expectations through clinical leadership structures, including medical directors, advanced practitioner roles, and formal governance processes that review discretionary decisions. These arrangements provide institutional support for clinical judgment while reinforcing accountability through case review, incident investigation, and continuous improvement. Because oversight authority is centralized and standardized across the system, discretion is shaped by governance rather than individual risk tolerance or market pressure. The result is a form of discretion that balances professional autonomy with system-wide expectations for safety, consistency, and defensibility, consistent with a non-market governance structure.

5.4.2.6. Organizational Identity Organizational identity within the English ambulance system shapes professional discretion by framing ambulance services as public system actors rather than market providers. National policy and reform documents consistently position ambulance services as integral components of the urgent and emergency care system, with responsibilities that extend beyond transport to include assessment, treatment, referral, and system coordination. The Bradley Report (2005) articulated this shift by emphasizing the role of ambulance services in managing demand and delivering appropriate care at the point of contact, reinforcing an identity grounded in clinical judgment and system integration rather than throughput or volume (Bradley Report, 2005).

This identity has been reinforced through subsequent national frameworks that emphasize integration and collective responsibility. The NHS Long Term Plan (2019) situates ambulance services as partners within integrated care systems, responsible for contributing to system-wide objectives such as reducing avoidable hospital admissions and supporting care closer to home (NHS England, 2019). Under this framing, discretion is treated as a functional requirement of organizational role rather than an individual or organizational prerogative exercised for competitive advantage.

Performance and governance mechanisms reinforce this organizational identity. Frameworks such as Ambulance Quality Indicators and the Ambulance Response Programme align organizational goals with patient-centered outcomes and system performance, establishing expectations that discretionary decisions advance appropriateness, safety, and integration (NHS England, 2011; NHS England, 2017). Within this identity, discretion is legitimate when it supports system objectives and conforms to national governance standards. Organizational

identity therefore operates as a mechanism through which non-market structure shapes both the meaning and acceptable use of professional discretion.

5.4.3. Case Evidence

Evidence from the English ambulance system demonstrates how a nationally standardized, non-market structure shapes professional discretion in practice. Because emergency ambulance provision operates as a regional monopoly under uniform national rules, variation in discretion does not arise from differences in market form. Instead, it is observable through changes over time and through differences in how discretion is exercised across ambulance services operating under the same incentive environment. These patterns provide empirical leverage for evaluating how market structure influences discretion in the absence of competition.

Temporal evidence shows that changes in professional discretion track shifts in national incentive and governance frameworks rather than local market pressures. Periods dominated by response time targets constrained discretion by prioritizing speed and conveyance, whereas later reforms reoriented incentives toward clinical appropriateness. The introduction of Ambulance Quality Indicators and the subsequent implementation of the Ambulance Response Programme altered how performance was evaluated, reducing the dominance of time-based metrics and legitimizing discretionary decisions such as non-conveyance and referral when clinically appropriate (NHS England, 2011; NHS England, 2017). These changes occurred uniformly across England, indicating that discretion expanded as a function of national performance redesign rather than localized organizational strategy.

Within the standardized system, ambulance services exhibit variation in how discretion is operationalized, but this variation remains bounded by the same market structure. Differences

across services reflect how organizations interpret and implement national guidance, deploy advanced practitioner roles, and integrate with local urgent and emergency care pathways. However, these differences do not alter the underlying incentive environment: revenue remains decoupled from transport activity, performance is assessed through national metrics, and clinical governance requirements are consistent across services. As a result, discretion varies in degree and emphasis but not in kind, reinforcing the role of market structure in shaping the outer limits of professional judgment.

Taken together, these patterns indicate that discretion in the English ambulance system responds to changes in nationally defined incentives and governance arrangements rather than to competitive pressures or financial signals. The absence of market variation across services, combined with observable shifts in discretion following national reforms, supports the claim that market structure influences discretion by shaping the institutional conditions under which clinical judgment is exercised. This case evidence establishes a clear link between England's non-market ambulance structure and the form and scope of professional discretion observed in practice.

5.4.4. H2 Mechanism Tests

The patterns of professional discretion observed in the English ambulance system can be evaluated against the claim that market structure influences discretion. Smoking-gun, hoop, and straw-in-the-wind tests are used to examine whether changes in discretion correspond to nationally defined incentive, funding, and governance arrangements rather than competitive pressures. Evidence drawn from national payment rules, performance frameworks, and system reforms is used to assess whether the non-market structure of ambulance provision plausibly conditions the exercise of clinical judgment.

5.4.4.1. Smoking-Gun Tests Strong evidence supporting H2 is found in the alignment between England's non-market ambulance structure and systematic patterns in the exercise of professional discretion. Changes in discretion correspond directly to shifts in nationally defined incentive and governance frameworks, despite the absence of competition, pricing, or provider choice. In England, discretion expands or contracts in response to centrally determined performance, funding, and governance rules rather than organizational efforts to increase revenue or market share.

The redesign of performance incentives provides the clearest evidence of this relationship. Under the national response time regime formalized by the Department of Health in the 1990s, ambulance clinician discretion was constrained by organizational pressure to prioritize rapid conveyance and throughput. The introduction of Ambulance Quality Indicators (2011) altered this incentive environment by expanding performance assessment beyond speed to include clinical outcomes and patient experience, thereby legitimizing discretionary decisions such as non-conveyance and referral when clinically appropriate (NHS England, 2011). This shift was reinforced by the Ambulance Response Programme, which restructured response categories around clinical acuity rather than uniform time thresholds, aligning performance expectations more closely with patient need than transport volume (NHS England, 2017). The uniform national adoption of these frameworks, alongside corresponding changes in discretionary practice, indicates that discretion responds to incentive structures embedded in governance design rather than to local competitive dynamics.

Additional evidence is visible in the financial neutrality of discretionary decisions. The NHS Payment System excludes emergency ambulance services from activity-based tariffs, ensuring that decisions to treat at scene or avoid conveyance do not reduce organizational

revenue (NHS England & NHS Improvement, 2019; NHS England & NHS Improvement, 2022). The persistence of non-conveyance and alternative pathway use under these funding arrangements reflects the absence of revenue pressure rather than organizational strategies to maximize income. The consistent coupling of nationally redesigned incentives with observable shifts in discretionary practice, within a system devoid of market competition, provides direct evidence that market structure influences levels of professional discretion in the English ambulance system

5.4.4.2. Hoop Tests For H2 to remain plausible, variation in professional discretion must be consistent with England's non-market ambulance structure rather than contradicting it. If market structure influences discretion, changes in discretionary practice should occur without the introduction of competition, pricing mechanisms, or provider choice. In England, expansions in discretion occurred while the structural features defining ambulance provision as a non-market service remained unchanged.

Emergency ambulance services have consistently been excluded from activity-based reimbursement and competitive contracting arrangements. The NHS Payment System continues to fund ambulance services through system-level allocations and contracts rather than per-transport tariffs, ensuring that transport volume does not function as a revenue signal (NHS England & NHS Improvement, 2019; NHS England & NHS Improvement, 2022). The persistence of discretionary practices such as non-conveyance under these arrangements indicates that discretion does not depend on market exchange or financial competition.

National performance and governance reforms altered how discretion was evaluated without altering the underlying market form. The shift from response time targets to Ambulance Quality Indicators and later to the Ambulance Response Programme restructured incentives

around clinical appropriateness while preserving national standardization and the absence of provider competition (NHS England, 2011; NHS England, 2017). Discretion expanded through changes in performance measurement and governance alone, without the introduction of market mechanisms that would contradict the hypothesized relationship.

Broader system reforms further reinforced non-market coordination rather than contestability. The establishment of Integrated Care Systems under the Health and Care Act 2022 positioned ambulance services within shared system responsibilities for flow and demand management, embedding discretion within hierarchical and collaborative structures rather than competitive ones (Health and Care Act, 2022). The continued absence of competition, pricing, and provider choice alongside expanded discretion is consistent with an account in which non-market structure conditions how discretion operates.

5.4.4.3. Straw-in-the-Wind Tests Weaker but corroborating evidence consistent with H2 is visible in the framing and language used across national policy and reform documents governing ambulance services in England. These documents consistently describe ambulance provision as a public service function embedded within the NHS, rather than as a marketized or contestable service. References to competition, provider choice, or price-based incentives are notably absent from documents governing emergency ambulance services, reflecting an assumption that market mechanisms are neither appropriate nor relevant in this domain (National Health Service Act, 1946; National Health Service Reorganisation Act, 1973).

Later policy frameworks reinforce this orientation by emphasizing coordination, integration, and system performance. The Bradley Report (2005) framed the expansion of ambulance roles in terms of improving system effectiveness and patient care rather than efficiency through competition. Similarly, guidance associated with Ambulance Quality

Indicators, the Ambulance Response Programme, and the NHS Long Term Plan (2019) repeatedly emphasizes clinical appropriateness, patient outcomes, and system flow, while remaining silent on market entry, exit, or competitive differentiation (Bradley Report, 2005; NHS England, 2011; NHS England, 2017; NHS England, 2019). Across these documents, discretion is implicitly situated within a coordinated public system rather than a market environment.

Although this evidence does not establish causation on its own, it is consistent with an account in which market structure shapes the institutional and normative context of discretionary practice. The recurrent association between discretion-enhancing reforms and language of system integration and public service orientation supports the plausibility of H2, indicating that discretion in the English ambulance system operates within a non-market structure even in the absence of direct market signals.

5.4.5. H2 Alternative Explanations

Several alternative explanations could plausibly account for variation in professional discretion within the English ambulance system, but none fully displace the influence of market structure. One such explanation is organizational culture and local management practice, which may affect how discretion is encouraged, monitored, or discouraged within individual ambulance services. Differences in leadership style, risk tolerance, and internal governance can shape clinicians' willingness to exercise discretion. However, these cultural and managerial differences operate within a nationally standardized incentive environment defined by uniform funding arrangements, performance frameworks, and regulatory oversight, limiting their independent explanatory power.

A second alternative emphasizes clinical risk, blame, and medico-legal accountability. Concern about adverse outcomes, investigation, or professional sanction may constrain

discretionary decision-making, particularly in ambiguous cases. While this environment plausibly shapes how discretion is exercised, it does not explain why discretion expands or contracts following changes in national payment rules or performance metrics. Risk sensitivity conditions behavior within the existing structure, but it does not account for the systematic alignment between nationally redesigned incentives and observed patterns of discretion.

Other explanations focus on workforce composition and skill mix, including the expansion of advanced paramedic roles and increased clinical capability. Although enhanced skills make discretion operationally feasible, training alone does not determine when or how discretion is exercised. The exercise of discretion remains contingent on organizational tolerance, documentation requirements, and performance expectations established at the system level. Similarly, system pressure and demand, such as hospital crowding or call volume, may temporarily expand or compress discretion, but these effects are situational and do not account for the durable alignment between discretion and non-market incentive structures.

Taken together, these alternative explanations help explain variation in the exercise of discretion at the margins, but they do not account for the consistent relationship between England's non-market ambulance structure and the form discretion takes. Each operates within, rather than outside of, the nationally standardized funding, governance, and performance environment. As such, they condition how discretion is exercised without replacing market structure as the primary mechanism shaping its scope and legitimacy.

5.4.6. H2 Findings

The evidence supports the claim that market structure influences levels of professional discretion in the English ambulance system. Ambulance services in England operate within a nationally standardized, non-market structure in which funding, performance assessment, and

governance are centrally defined and insulated from competition, pricing, and provider choice. Within this institutional context, discretion is shaped indirectly through system-level incentive design rather than through market exchange. National payment rules, performance frameworks, and hierarchical governance arrangements condition where and how discretion may be exercised, aligning discretionary practice with objectives such as clinical appropriateness, demand management, and patient outcomes while maintaining standardized oversight and accountability (NHS England, 2011; NHS England, 2017; NHS England & NHS Improvement, 2019; Health and Care Act, 2022). The persistence of these patterns across time and across services operating under common non-market conditions indicates that market structure shapes both the scope and form of professional discretion in England, even in the absence of competition or price-based incentives.

5.5. H3 Analysis

The preceding analyses showed that professional discretion in the English ambulance system is shaped both by path-dependent institutional arrangements and by the structure of a nationally standardized, non-market service. These dimensions do not operate independently. Instead, historically embedded arrangements filter how market-oriented governance tools are designed and applied, helping to explain why reforms associated with efficiency, performance, and demand management altered the scope of discretion without transforming the underlying organization of ambulance provision. H3 examines this interaction by focusing on how path dependency conditions the effects of market structure, shaping the channels through which later reforms influence professional practice and producing a pattern of layered change rather than institutional rupture.

5.5.1. Interaction Logic

Path dependency conditions the influence of market structure on professional discretion by shaping how market-oriented governance tools are translated into practice. Market structure and historical development do not operate as independent forces. Instead, the effects of market structure are contingent on pre-existing institutional arrangements that define which governance instruments can be applied, how they are operationalized, and which dimensions of discretion they reach.

In the English ambulance system, market structure exerts influence primarily through governance instruments such as funding rules, performance metrics, and system accountability frameworks rather than through competition, pricing, or provider choice. These instruments do not operate autonomously. Their effects depend on the institutional environment into which they are introduced. Early decisions embedded in the organization of ambulance services fixed core features of service provision, including public ownership, territorial responsibility, centralized dispatch, and collective risk allocation. These features established durable boundaries within which later market-oriented reforms could plausibly function (National Health Service Act, 1946; National Health Service Reorganisation Act, 1973).

The interaction between path dependency and market structure operates through selective activation rather than direct imposition. Market-oriented reforms articulated in Working for Patients and enacted through the National Health Service and Community Care Act 1990 introduced competition and contractual incentives across much of the NHS, but their application to ambulance services was constrained by inherited institutional boundaries (Department of Health, 1989; National Health Service and Community Care Act, 1990). As a result, market

influence entered ambulance provision indirectly, primarily through performance management and system coordination rather than through competitive or price-based mechanisms.

This interaction logic implies that market structure affects professional discretion only in domains compatible with historically established arrangements. In England, market-oriented governance tools shape task-level and operational discretion, such as conveyance decisions and pathway use, because these domains can be evaluated, monitored, and aligned with system objectives through standardized metrics. By contrast, core clinical authority, scope of practice, and professional identity remain largely insulated from market influence, as altering these domains would require institutional change inconsistent with inherited governance structures. The interaction logic therefore specifies not only whether market structure matters, but where and how its effects are realized.

5.5.2. Historical Legacies as Conditioning Forces

Historical legacies condition the influence of market structure on professional discretion in the English ambulance system by fixing core institutional features that later governance reforms must accommodate rather than displace. These legacies originate in the founding settlement of the National Health Service and were reinforced through organizational consolidation and selective reform. Together, they establish durable boundaries within which market-oriented governance tools could later operate, shaping both the form and limits of their influence on professional discretion.

The most consequential legacy was established by the National Health Service Act 1946, which incorporated ambulance services into a publicly owned, centrally coordinated national health system and defined them as a statutory public service obligation rather than a marketable activity (National Health Service Act, 1946). This settlement fixed ambulance services as

territorially organized monopolies, allocated demand through centralized dispatch rather than consumer choice, and embedded provision within collective risk pooling. By removing price signals, competition, and provider selection from emergency ambulance care, the founding settlement created a durable institutional baseline that constrained the range of feasible future reforms.

Subsequent organizational restructuring reinforced this baseline rather than altering it. The National Health Service Reorganisation Act 1973 transferred ambulance services from local authorities into NHS administrative structures, consolidating centralized planning, accountability, and oversight (National Health Service Reorganisation Act, 1973). Rather than opening ambulance services to diversification or plural provision, this reform deepened their integration into national governance arrangements and reinforced their role as system infrastructure. The transfer strengthened path-dependent expectations of ambulance services as standardized public goods rather than organizational actors responsive to market incentives.

The conditioning role of these legacies is further illustrated by later reforms that introduced market mechanisms elsewhere in the NHS. The internal market reforms articulated in Working for Patients and enacted through the National Health Service and Community Care Act 1990 introduced purchaser–provider separation, contracting, and competition across large parts of the health system, yet emergency ambulance services were explicitly excluded from these arrangements (Department of Health, 1989; National Health Service and Community Care Act, 1990). This exclusion reflects the persistence of inherited assumptions about ambulance services as non-contestable emergency infrastructure, limiting the applicability of market mechanisms regardless of broader system reform.

As market-oriented concerns such as efficiency, productivity, and demand management gained prominence, their influence was therefore mediated by these historically fixed boundaries. Reforms such as the Bradley Report (2005) and later performance frameworks did not attempt to alter ownership, introduce competition, or redefine ambulance services as market providers. Instead, they translated market concerns into system-compatible objectives and administratively mediated governance tools operating within the inherited institutional structure (Bradley Report, 2005). Historical legacies thus conditioned not whether market structure mattered, but how it could matter, restricting market influence to indirect forms that shaped discretion without transforming the underlying character of ambulance services.

5.5.3. Mechanisms: How Path Dependency Conditions Market Effects

Path dependency conditions the influence of market structure on professional discretion through a set of mechanisms that shape how market-oriented governance tools are absorbed and constrained within inherited institutional arrangements. Rather than operating independently, later reforms were filtered through the organizational and governance structures established through the founding and consolidation of the NHS. Drawing on evidence from national reform documents and performance frameworks, including the National Health Service Act 1946, Working for Patients, the National Health Service and Community Care Act 1990, the Bradley Report (2005), and subsequent national performance reforms, the mechanisms examined here show how market effects were layered, translated, bounded, and repurposed rather than directly imposed (National Health Service Act, 1946; Department of Health, 1989; National Health Service and Community Care Act, 1990; Bradley Report, 2005). These mechanisms account for the selective and indirect ways in which market structure shaped professional discretion within England's path-dependent institutional context.

5.5.3.1. Institutional Layering Institutional layering operates as a central mechanism through which path dependency conditions the influence of market structure on professional discretion in the English ambulance system. Rather than permitting market-oriented reforms to restructure ambulance provision directly, inherited institutional arrangements required new governance tools to be added onto an existing non-market foundation. This layering process shaped both the form and limits of market influence by channeling reform toward evaluative and oversight practices while leaving the core organization of ambulance services unchanged.

The foundational institutional layer was established by the National Health Service Act 1946, which embedded ambulance services within a publicly owned, centrally coordinated national health system and defined them as a statutory public service obligation (National Health Service Act, 1946). This settlement fixed ambulance services as territorially organized monopolies, removed competition and price signals from emergency response, and positioned ambulance provision as system infrastructure rather than as a market-facing service. These features created durable constraints that later reforms were required to accommodate rather than displace.

Later reforms that introduced market-oriented governance elsewhere in the NHS were added around this non-market foundation rather than used to restructure ambulance provision. The internal market reforms articulated in Working for Patients and enacted through the National Health Service and Community Care Act 1990 introduced contracting, purchaser–provider separation, and competition across much of the health system, yet emergency ambulance services were explicitly excluded from these arrangements (Department of Health, 1989; National Health Service and Community Care Act, 1990). This exclusion illustrates the logic of layering: market

mechanisms were introduced at the system level while the institutional form of ambulance provision remained intact.

As market-oriented concerns such as efficiency and productivity gained prominence, they were incorporated through additional governance layers rather than through structural marketization. The Bradley Report (2005) reframed ambulance services as contributors to system efficiency and demand management, but did so within the inherited framework of centralized governance and public service provision (Bradley Report, 2005). Subsequent performance frameworks, including Ambulance Quality Indicators and the Ambulance Response Programme, further layered performance measurement and accountability mechanisms onto existing arrangements without introducing competition, pricing, or provider choice (NHS England, 2011; NHS England, 2017). These layers altered how discretion was evaluated and monitored, but not the institutional conditions under which it was exercised.

Through institutional layering, market structure influenced professional discretion indirectly and unevenly. Market-oriented governance tools reshaped task-level expectations and evaluative criteria, particularly around conveyance decisions and pathway use, while leaving ownership, demand allocation, and core clinical authority unchanged. Path dependency conditioned market effects by confining reform to additive governance layers compatible with existing institutions. Institutional layering therefore explains why market structure mattered for discretion in England, but only in forms that preserved the non-market character of ambulance services.

5.5.3.2. Translation of Market Logics Translation operates as a mechanism through which path dependency conditions the influence of market structure by converting market-oriented rationales into forms compatible with inherited institutional arrangements. In the

English ambulance system, concerns associated with market governance—such as efficiency, productivity, and value—were not pursued through competition, pricing, or provider choice. Instead, these rationales were translated into administrative and clinical governance tools that aligned with the non-market structure established earlier.

This translation is evident in the reframing of efficiency concerns as matters of clinical appropriateness and system flow rather than cost minimization or throughput. The Bradley Report (2005) articulated a shift in expectations for ambulance services by emphasizing their role in delivering appropriate care, managing demand, and contributing to system efficiency without redefining them as market actors (Bradley Report, 2005). In doing so, the report translated market-oriented concerns about resource use into a clinical and system-oriented framework compatible with existing NHS governance arrangements.

Subsequent performance frameworks further operationalized this translation. The introduction of Ambulance Quality Indicators (2011) expanded performance assessment beyond response times to include indicators related to clinical outcomes and patient experience, recasting efficiency as the delivery of appropriate care rather than rapid conveyance (NHS England, 2011). The Ambulance Response Programme built on this approach by reorganizing response categories around clinical acuity, explicitly supporting the use of professional judgment to prioritize resources and manage demand within a standardized system (NHS England, 2017). Through these reforms, efficiency concerns were embedded in performance management while remaining insulated from direct economic incentives.

This translation process reshaped professional discretion by redefining what constituted legitimate and defensible decision-making. Discretion was encouraged where it aligned with translated objectives such as appropriateness, risk management, and system integration, yet

remained bounded by standardized metrics, documentation requirements, and oversight. Path dependency conditioned this translation by confining the expression of market logics to tools consistent with public service identity, centralized governance, and the non-market structure of ambulance services. Market influence thus reached professional discretion indirectly, altering evaluative criteria without transforming the institutional foundations of practice.

5.5.3.3. Boundary Preservation Boundary preservation functions as a mechanism through which path dependency conditions the influence of market structure by maintaining institutional divisions that limit the reach of market-oriented governance into core domains of professional discretion. In the English ambulance system, early institutional settlements fixed boundaries around ownership, demand allocation, and clinical authority. These boundaries shaped later reform by determining which aspects of ambulance practice could be governed through market-style instruments and which remained insulated.

The foundational boundaries were established by the National Health Service Act 1946, which embedded ambulance services within a publicly owned national health system and defined emergency ambulance provision as a statutory public service obligation (National Health Service Act, 1946). This settlement removed ambulance services from competitive provision, centralized demand through dispatch rather than consumer choice, and positioned clinical authority outside market exchange. In doing so, it created durable constraints on how later incentive structures could be applied to ambulance work.

Subsequent organizational reforms reinforced rather than eroded these boundaries. The National Health Service Reorganisation Act 1973 consolidated ambulance services within NHS administrative structures, deepening centralized accountability and limiting forms of organizational autonomy that might otherwise have supported market responsiveness (National

Health Service Reorganisation Act, 1973). Later internal market reforms, introduced through Working for Patients and enacted in the National Health Service and Community Care Act 1990, deliberately excluded emergency ambulance services from purchaser–provider competition and contractual contestability (Department of Health, 1989; National Health Service and Community Care Act, 1990). This exclusion reflects the active preservation of institutional boundaries even as market mechanisms expanded elsewhere in the system.

As market-oriented governance tools were introduced in other parts of the NHS, their application to ambulance services was confined to domains compatible with these preserved boundaries. Performance frameworks such as Ambulance Quality Indicators and the Ambulance Response Programme evaluated ambulatory processes, without altering personnel or institutional authority structures, that ultimately affect how discretion is exercised (NHS England, 2011; NHS England, 2017). These instruments reshaped operational expectations while leaving clinical scope, professional regulation, and ownership arrangements intact.

Boundary preservation therefore conditioned market influence by directing governance attention toward how discretion was evaluated rather than whether discretion existed or who controlled it. Task-level and operational discretion became sites of reform because they could be monitored within existing institutional boundaries, while core clinical judgment and professional identity remained protected from market intrusion. Through the preservation of these boundaries, path dependency constrained the reach of market structure, shaping professional discretion in selective and institutionally compatible ways.

5.5.3.4. Conversion Toward System Integration Conversion toward system integration operates as a mechanism through which path dependency conditions the influence of market structure by repurposing existing institutions to absorb market-oriented objectives

without altering their foundational character. Rather than restructuring ambulance services as market providers, reforms redirected existing organizational capacities toward system-wide coordination and demand management. This process allowed market-style concerns to shape professional discretion indirectly while preserving the non-market institutional form established earlier.

This mechanism is evident in reforms that redefined the role of ambulance services within urgent and emergency care systems. The Bradley Report (2005) positioned ambulance services as system integrators responsible for ensuring that patients receive appropriate care at the point of contact, including treatment at scene and referral to alternative pathways when conveyance was unnecessary (Bradley Report, 2005). Although this reframing incorporated concerns associated with efficiency and resource use, it did so by repurposing the ambulance service's role within existing NHS structures rather than by introducing competition or price-based incentives.

Subsequent performance and governance frameworks reinforced this conversion by aligning discretionary practice with system-level objectives. The introduction of Ambulance Quality Indicators and the implementation of the Ambulance Response Programme reorganized expectations around clinical prioritization and demand management, encouraging discretionary decisions that supported patient flow and system effectiveness (NHS England, 2011; NHS England, 2017). These reforms did not alter ownership, funding models, or demand allocation mechanisms. Instead, they converted inherited institutional arrangements into tools for managing system performance, shaping discretion through integration rather than market exchange.

More recent reforms further institutionalized this conversion. The statutory establishment of Integrated Care Systems under the Health and Care Act 2022 formalized the role of

ambulance services as partners in system-wide planning and accountability for urgent and emergency care (Health and Care Act, 2022). Within this framework, discretion was shaped by shared system responsibilities and collective performance goals, reinforcing expectations that clinical judgment should support integration and demand management. Market-oriented objectives thus influenced discretion only insofar as they could be pursued through coordinated system governance.

Through conversion toward system integration, path dependency conditioned market effects by redirecting market-oriented pressures into institutionally compatible forms. Ambulance services were not dismantled or marketized; they were repurposed to serve evolving system objectives. This mechanism explains how market structure influenced professional discretion in England by shaping the purposes to which discretion was applied while leaving the underlying non-market organization of ambulance services intact.

5.5.4. Case Evidence

Emergency ambulance services in England have developed within a stable institutional framework characterized by public ownership, centralized governance, and nationally defined responsibilities. Within this context, successive reforms introduced new expectations related to efficiency, performance, and system coordination. The evidence below traces how these reforms unfolded over time and how they reshaped the environment in which professional discretion was exercised, without altering the foundational organization of ambulance provision.

When market-oriented reforms were introduced across the National Health Service in the late 1980s and early 1990s, ambulance services remained institutionally unchanged. Working for Patients and the subsequent National Health Service and Community Care Act 1990 reorganized large parts of the health system around purchaser–provider separation, contracting, and

competition. Emergency ambulance services, however, continued to operate as territorially assigned providers without competition, price-based reimbursement, or patient choice (Department of Health, 1989; National Health Service and Community Care Act, 1990). During this period, ambulance provision retained its existing governance arrangements, and professional discretion continued to be exercised within a framework oriented primarily toward response and transport.

Policy attention later shifted from organizational form to system performance. The Bradley Report (2005) marked an inflection point by reconsidering the role of ambulance services within urgent and emergency care. Rather than focusing on market organization, the report emphasized the capacity of ambulance clinicians to assess patients at the point of contact, provide treatment on scene, and direct patients to appropriate services. In doing so, it described an expanded operational role for ambulance services while preserving their position within centralized NHS governance structures (Bradley Report, 2005).

Following this reframing, changes in performance management began to reshape how ambulance activity was evaluated. The introduction of Ambulance Quality Indicators in 2011 expanded national performance assessment beyond response time targets to include measures related to clinical outcomes and patient experience (NHS England, 2011). These indicators altered reporting expectations and introduced new categories through which discretionary decisions were recorded and assessed. Subsequent reforms under the Ambulance Response Programme further adjusted response standards by organizing performance categories around clinical acuity rather than uniform time thresholds (NHS England, 2017). Together, these frameworks reconfigured how prioritization, conveyance, and on-scene decision-making were monitored within the existing institutional structure.

More recently, ambulance services have been drawn more explicitly into system-level governance arrangements. The statutory establishment of Integrated Care Systems through the Health and Care Act 2022 formalized shared accountability for urgent and emergency care, population health, and system flow. Under these arrangements, ambulance services were positioned as participants in collective planning and coordination processes, operating within shared performance and accountability frameworks rather than as independent organizational units (Health and Care Act, 2022).

Across these developments, ambulance services in England retained their non-market organizational form, centralized demand allocation, and public ownership. Governance changes accumulated through reports, performance frameworks, and system coordination mechanisms layered onto existing institutional arrangements, progressively reshaping the context in which professional discretion was exercised while leaving the foundational structure of ambulance provision intact.

5.5.5. H3 Mechanism Tests

The evidence presented in the preceding case narrative can be assessed against the claim that path dependency conditions the influence of market structure on professional discretion in the English ambulance system. Smoking-gun, hoop, and straw-in-the-wind tests are used to examine whether the observed sequence of reforms is consistent with an interaction in which inherited institutional arrangements shape how later market-oriented governance tools take effect. Each test applies a distinct inferential threshold to the same empirical record, allowing the analysis to evaluate how convincingly historical legacies and market structure jointly account for observed patterns of professional discretion.

5.5.5.1. Smoking-Gun Tests The strongest evidence for H3 appears where market-oriented governance tools were shaped by inherited institutional arrangements, producing effects on professional discretion that would not be expected in the absence of path dependency. In the English ambulance system, efficiency- and performance-oriented reforms repeatedly incorporated market logics while preserving non-market organizational structures, conditioning how market influence reached professional practice.

Clear evidence of this conditioning effect is visible in the selective application of internal market reforms introduced through Working for Patients and the National Health Service and Community Care Act 1990. Although these reforms embedded competition, contracting, and purchaser–provider separation across much of the NHS, emergency ambulance services were deliberately excluded (Department of Health, 1989; National Health Service and Community Care Act, 1990). Market logics were systemically salient at this moment, yet inherited assumptions about ambulance services as emergency public goods constrained their application. The insulation of ambulance services from competition indicates that the influence of market structure on discretion was filtered through institutional boundaries established earlier, rather than determined by contemporaneous reform objectives alone.

Further evidence appears in the Bradley Report (2005), which sought to address efficiency and demand management without altering the institutional status of ambulance services. Rather than proposing competition, price incentives, or provider diversification, the report reframed ambulance services as system integrators capable of delivering appropriate care at the point of contact (Bradley Report, 2005). Market-oriented concerns were incorporated through this reframing while remaining embedded within the existing non-market framework, indicating that path-dependent arrangements shaped how such objectives could be pursued.

National performance reforms reinforce this pattern. The introduction of Ambulance Quality Indicators and the Ambulance Response Programme operationalized efficiency and effectiveness through standardized metrics and clinical prioritization rather than through financial incentives or competitive pressure (NHS England, 2011; NHS England, 2017). These reforms altered how professional discretion was exercised and evaluated, yet did so through governance instruments compatible with centralized ownership and collective demand allocation. Such alignment between market-oriented objectives and non-market instruments would be unlikely in the absence of conditioning institutional constraints.

More recent reforms further strengthen this interpretation. The formalization of Integrated Care Systems under the Health and Care Act 2022 intensified system-level accountability and coordination while leaving ambulance services embedded within collective governance arrangements rather than exposing them to market exchange (Health and Care Act, 2022). Expanded expectations for coordination and performance thus accumulated alongside the continued absence of competition or pricing mechanisms.

Across these instances, efficiency, performance, and coordination objectives were consistently pursued through instruments compatible with inherited non-market arrangements. The deliberate exclusion of ambulance services from competition, the reframing of efficiency through system integration, and the reliance on standardized performance governance indicate that historical legacies conditioned the channels through which market structure influenced professional discretion.

5.5.5.2. Hoop Tests For H3 to remain plausible, the evidence must be consistent with an account in which market-oriented governance influences professional discretion only within constraints imposed by inherited institutional arrangements. If market structure operated

independently of path dependency, the record would be expected to show the introduction of competition, price-based incentives, provider choice, or a reconfiguration of ownership and demand allocation in ambulance provision. The English case does not display these features.

Across major reform moments, ambulance services retained public ownership, territorial responsibility, centralized dispatch, and exclusion from competitive contracting. Internal market reforms introduced through Working for Patients and the National Health Service and Community Care Act 1990 expanded competition and purchaser–provider separation elsewhere in the NHS, yet emergency ambulance services remained outside these arrangements (Department of Health, 1989; National Health Service and Community Care Act, 1990). The persistence of this exclusion aligns with an account in which historical institutional boundaries constrained the reach of market mechanisms.

Subsequent reforms incorporating efficiency and performance objectives also fit this pattern. The Bradley Report (2005) reframed ambulance services' role in managing demand and providing appropriate care without proposing market entry, provider diversification, or activity-based pricing (Bradley Report, 2005). National performance reforms through Ambulance Quality Indicators and the Ambulance Response Programme altered evaluative criteria and operational expectations without introducing financial incentives tied to conveyance volume or competitive benchmarking (NHS England, 2011; NHS England, 2017). These reforms are consistent with an interaction in which market-oriented objectives are pursued through tools shaped by inherited institutional arrangements.

More recent system reforms reinforce this consistency. The establishment of Integrated Care Systems under the Health and Care Act 2022 intensified coordination and shared accountability for urgent and emergency care, embedding ambulance services within collective

governance arrangements rather than exposing them to market exchange (Health and Care Act, 2022). The continued absence of competition, pricing, or provider choice alongside expanded coordination does not conflict with the proposed interaction between path dependency and market structure. Observed changes in professional discretion thus occur within a stable non-market framework, and no evidence indicates that market mechanisms bypassed or displaced historically established institutional constraints.

5.5.5.3. Straw-in-the-Wind Tests Weaker, corroborating evidence consistent with H3 is visible in the absence of institutional changes that would contradict an account in which market-oriented governance influences professional discretion only within inherited constraints. If market structure operated independently of path dependency, the record would be expected to show the introduction of competition, price-based incentives, provider choice, or changes to ownership and demand allocation in ambulance provision. The English case does not display these features.

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Taken as corroborating evidence rather than decisive proof, these patterns are consistent with an account in which changes in professional discretion occurred within a stable non-market framework. No evidence indicates that market mechanisms bypassed or displaced historically established institutional constraints.

5.5.6. H3 Alternative Explanations

Changes in professional discretion within the English ambulance system could plausibly be attributed to factors other than the interaction between path dependency and market structure. In particular, professional development, risk governance, system pressure, and organizational context each provide potential alternative accounts for observed changes in discretionary

practice. These explanations capture important elements of the empirical environment in which ambulance clinicians operate, but they do not fully account for the patterned relationship between governance reforms and the domains in which discretion expanded.

One prominent alternative explanation emphasizes the role of professionalization and workforce development. Over time, ambulance clinicians have acquired enhanced training, expanded scopes of practice, and greater clinical capability, particularly through the development of advanced paramedic roles. These changes make expanded discretion feasible and help explain how clinicians are able to assess, treat, and refer patients at the point of contact. However, professional capacity alone does not explain why discretion expanded in some domains but not others, nor why expanded discretion consistently aligned with nationally defined performance frameworks and system objectives rather than professional autonomy as such. Professionalization helps explain the possibility of discretion, but not its specific institutional form.

Another account focuses on risk management and accountability. Ambulance services operate in a highly scrutinized environment shaped by concerns about patient safety, adverse events, and regulatory oversight. Shifts in discretionary practice may reflect evolving approaches to managing clinical risk, documentation, and organizational liability. While these pressures clearly influence how discretion is exercised in practice, they do not account for the timing or direction of change. In particular, they do not explain why discretion expanded through nationally standardized frameworks that emphasized appropriateness and system flow rather than through more defensive or restrictive practices that might be expected under heightened risk sensitivity alone.

System pressure provides a further alternative explanation. Rising call volumes, emergency department crowding, and constraints on hospital capacity create operational pressures that may necessitate greater discretion as a pragmatic response. These pressures form an important backdrop to changes in ambulance practice, yet they do not explain why responses to pressure took institutionally specific forms. System strain could plausibly produce a wide range of discretionary responses, including informal workarounds or local divergence. Instead, changes in discretion were formalized through national reports, performance indicators, and system-wide reforms, suggesting that system pressure interacted with existing governance structures rather than acting as an independent driver.

Finally, variation in organizational culture and leadership may shape how discretion is encouraged, monitored, or constrained within individual ambulance services. Differences in managerial priorities and internal governance can influence frontline behavior. However, such variation operates within a nationally standardized environment defined by common funding arrangements, performance metrics, and accountability frameworks. Organizational culture may affect the expression of discretion, but it does not explain the consistent institutional boundaries within which discretion expanded across the system.

Considered collectively, these alternative explanations illuminate important contextual factors that shape the exercise of professional discretion. None, however, fully accounts for the structured and system-wide alignment between discretionary change and the introduction of governance tools that incorporated market-oriented objectives while preserving non-market institutional arrangements. Rather than displacing the interaction between path dependency and market structure, these explanations operate within it, conditioning how discretion is enacted

without explaining why its expansion followed the specific institutional pathways observed in the English case.

5.5.7. H3 Findings

The analysis supports an account in which path dependency conditions the influence of market structure on professional discretion in the English ambulance system. Market-oriented objectives such as efficiency, performance, and demand management shaped discretionary practice, but only through channels made available by historically entrenched institutional arrangements. Early NHS settlements fixed ambulance services as publicly owned, territorially organized, and centrally coordinated emergency infrastructure, and later reforms consistently operated within these constraints rather than displacing them. Market influence was therefore expressed indirectly, through governance instruments and performance frameworks compatible with inherited institutional forms, rather than through competition, pricing, or provider choice. Discretion expanded primarily at the task and operational level and remained aligned with nationally defined system goals, while core clinical authority and organizational form remained insulated from market pressure. Taken together, the findings indicate that market structure mattered in England, but only insofar as its effects were conditioned, shaped, and bounded by path-dependent institutional legacies.

5.6. Conclusion

This chapter demonstrates that professional discretion in the English ambulance system is best understood as an institutionally constituted outcome shaped through historical sequencing, rather than as a simple function of professional capacity or contemporary reform pressures. Discretion neither emerged abruptly nor expanded uniformly, nor can it be attributed solely to

advances in clinical expertise or episodic system stress. Instead, it developed within a governance architecture established early through centralized coordination, public ownership, and collective responsibility for emergency care. These foundational arrangements generated durable constraints on how ambulance work could be organized, evaluated, and governed, structuring the conditions under which discretion could expand while preserving a non-market conception of ambulance services as essential public infrastructure.

Within this path-dependent context, later governance reforms introduced expectations related to efficiency, performance, and demand management without displacing inherited institutional arrangements. Market-oriented objectives shaped professional discretion only insofar as they could be pursued through instruments compatible with existing governance structures, including standardized performance frameworks, system integration mandates, and nationally defined accountability regimes. Discretion therefore expanded selectively, most visibly at the operational and task level where clinical judgment could be aligned with system objectives, while core features of ambulance provision—ownership, demand allocation, and clinical authority—remained insulated from market exchange. The English case thus shows that market structure mattered, but only insofar as its effects were filtered, redirected, and bounded by historically entrenched institutional legacies.

Taken as a whole, the chapter underscores the analytical value of treating professional discretion as a product of institutional interaction rather than as an attribute of professions or markets in isolation. By tracing how historical legacies conditioned the influence of later governance reforms, the analysis clarifies how institutional continuity shapes not only whether discretion expands, but the domains in which it is permitted and the purposes it is made to serve. The English ambulance system illustrates how discretionary authority can grow within a non-

market framework through layered, translated, and system-oriented forms of governance, offering a refined account of how professional authority is structured over time in publicly organized emergency services.

Chapter 6 Discussion

This dissertation is motivated by a core empirical puzzle: the level of discretion afforded to medical professionals varies systematically across state systems, even in contexts where clinical uncertainty, professional training, and ethical obligations are broadly comparable. Existing literatures establish that discretion is unavoidable in high-stakes medical decision-making, particularly in time-sensitive settings such as emergency medical services. Yet they offer limited leverage for explaining why some governance systems authorize professional judgment as a central and durable feature of practice while others narrow, proceduralize, or condition that judgment. The preceding chapters addressed this puzzle by adopting an explicitly institutional stance, conceptualizing discretion as institutionally authorized decision-making power embedded in legal frameworks, organizational structures, and accountability regimes that allocate authority between professionals, organizations, and the state.

Chapters 4 and 5 applied this framework through within-case analyses of emergency medical services governance in the United States and England, tracing how discretionary authority was articulated, stabilized, and reworked through sequences of institutional development and reform. This chapter advances the analysis by interpreting those findings at a higher level of abstraction. It begins by synthesizing the institutional configuration of discretion within each case, clarifying how judgment is authorized, where it is located, and how it is bounded and stabilized through governance arrangements. The discussion then draws out the theoretical implications of these patterns for how discretion should be conceptualized and studied, before revisiting the hypotheses and causal expectations in terms of causal plausibility

and salient mechanisms. The final sections situate the argument within broader debates on discretion and governance, delineate its scope conditions, and outline restrained directions for future research. Throughout, the emphasis is on synthesis and explanation rather than description, and on sharpening the conceptual contribution without extending the evidentiary record.

6.1. Institutionalizing Bounded Discretion in the United States

The U.S. findings indicate that professional discretion in EMS is authorized less as independent clinical judgment than as institutionally delegated, protocol-bounded decision-making nested within physician-directed oversight and standardized rule systems. Discretion is enabled primarily at the margins of protocolized care—where clinical presentations are ambiguous, scenes are operationally complex, or guidance requires interpretation—but the outer boundary of permissible judgment remains structurally narrow. This narrowness reflects an institutional architecture in which EMS was historically configured as a transportation-safety function rather than as an autonomous clinical profession, embedding expectations of rapid transport, procedural consistency, and escalation to supervisors or medical direction when uncertainty arises (Brooks et al., 2016; Institute of Medicine, 2007; Shah, 2006; United States Department of Transportation, National Highway Traffic Safety Administration, 1969). Within this design, discretion is authorized as conditional latitude: providers may interpret within protocols, but deviations are treated as exceptional and routinely require supervisory or physician approval, reinforcing an authority structure in which judgment is legitimate only insofar as it is demonstrably rule-consistent and reviewable (see American College of Emergency Physicians, 2017; Baker, 2022; Washington State Department of Health, 2017).

Across the U.S. jurisdictions examined, discretion is distributed unevenly across system tiers rather than residing with the profession as a unified locus of authority. At the street level, EMTs and paramedics exercise judgment through protocol interpretation, scene management, and real-time resolution of uncertainty. Yet the findings show that the most consequential discretionary authority frequently shifts upward or outward: to managers and contracting regimes that structure operational priorities; to medical directors and clinical review processes that define legitimate reasoning; and to organizations whose incentive environments shape how much interpretive flexibility is tolerated in practice. The Alameda and Seattle/King County cases make this differentiation especially visible. ALS crews in contracted or private environments operate under performance benchmarks that reward predictable operational patterns, while fire-based BLS crews function within hierarchical command cultures that routinize conservative protocol adherence and escalate uncertainty through supervisory channels (see Alameda County Emergency Medical Services Agency, 2022, 2024; King County Department of Public Health, 2025; Public Health – Seattle & King County, Emergency Medical Services Division, 2020–2025). Discretion, therefore, is not simply possessed by licensed providers; it is allocated through governance design such that different system tiers enact distinct forms of judgment under the same formal clinical rules.

The U.S. case further shows that discretion is constrained and stabilized through mutually reinforcing mechanisms that render judgment legible and disciplinable. Three mechanisms are particularly salient. First, protocolization and standardized training operate as boundary-setting devices: educational and professional norms emphasize protocol adherence, rapid transport, and procedural consistency, shaping how providers understand their role and calibrate their authority relative to supervisors and medical direction (Baker, 2022; Brooks et al., 2016; United States

Department of Transportation, National Highway Traffic Safety Administration, 2009; United States Fire Administration, 2012). Second, hierarchical organization—especially through fire service adoption—reproduces command-and-control structures that narrow discretionary practice by normalizing risk management, chain-of-command discipline, and escalation rather than independent resolution of ambiguity (JEMS, 2024; National Volunteer Fire Council, 2017). Third, reimbursement and performance governance stabilize a transport-centric practice orientation: Medicare's treatment of EMS as a transportation benefit embeds transport volume into the financial core of operations, discouraging alternatives that would require broader treat-in-place or non-transport discretion and reinforcing institutional expectations established during the system's formative period (Centers for Medicare & Medicaid Services, 2019; Centers for Medicare & Medicaid Services, 2023; Institute of Medicine, 2007; National EMS Advisory Council, 2019; Shah, 2006). These mechanisms do not eliminate discretion; they standardize it, producing a predictable and reviewable form of judgment compatible with oversight and performance management.

Together, these patterns point to a dominant institutional logic governing discretion in the U.S. case: a transport–performance logic layered onto a technician-oriented institutional foundation. The foundation establishes protocol-driven care, physician-directed oversight, and limited autonomy as design features rather than temporary constraints, while market exposure and administrative performance regimes shape how that bounded autonomy is enacted across organizational settings. In performance-driven environments, discretion is operationalized as efficiency-oriented interpretation, with providers resolving ambiguity in ways that align with response-time benchmarks, unit availability metrics, documentation standards, and contract evaluation criteria (see Alameda County Emergency Medical Services Agency, 2022, 2024;

Public Health – Seattle & King County, Emergency Medical Services Division, 2024, 2025). In fire-based environments, the same bounded discretion is operationalized as conservative compliance, with uncertainty treated as a cue for escalation and procedural adherence even under identical protocols and medical oversight (see King County Department of Public Health, 2025). Market structure does not expand discretion beyond the system's institutional ceiling; it reorients discretionary practice within that ceiling by shaping which choices are organizationally safe, rewarded, and reproducible.

Governance arrangements also shape the visibility of discretion and the form of accountability to which it is subject. Where contractual benchmarks and performance metrics dominate, discretion becomes visible as a potential source of variance that threatens measured performance, incentivizing standardized decision pathways and discouraging deviations that are difficult to justify within auditing regimes (see Alameda County Emergency Medical Services Agency, 2022, 2024). In such contexts, discretion is rendered accountable in advance through metrics that define what counts as "good" decision-making operationally. By contrast, where hierarchy and risk-management culture prevail, discretion is treated less as a positive capacity than as a compliance risk; uncertainty is channeled upward, and procedural adherence becomes the primary defensible stance (see King County Department of Public Health, 2025). These dynamics clarify why medical oversight can function simultaneously as a stabilizer and a limited enabler: physician feedback and clinical review can expand interpretive flexibility at the margins in some organizational settings, while reinforcing conservative rule-following in others depending on hierarchy and incentive structure (see Public Health – Seattle & King County, Emergency Medical Services Division, 2020–2025).

Finally, the U.S. findings specify a mechanism-centered account of professional authority. Authority is sustained less through profession-led jurisdictional control than through institutional arrangements that define the permissible scope of judgment and the procedures required to legitimate it. Path-dependent design establishes durable boundary conditions—standardized training, protocolized clinical governance, physician oversight, and transport-centric reimbursement—while market and administrative governance shape the texture of discretionary practice without transforming those limits. Market structure influences how discretion is exercised, but institutional architecture determines how much discretion is plausible and legitimate across jurisdictions (H3). Discretion in U.S. EMS is therefore best understood as a bounded institutional outcome: a structured capacity produced through historical design and stabilized through governance instruments that make judgment measurable, reviewable, and organizationally controllable.

6.2. Centralized Authority and the Structuring of Discretion in England

The England findings indicate that professional discretion is structured as a centrally delegated and administratively legible form of judgment, not as an informal space of autonomy or an emergent occupational prerogative. Discretion is exercised repeatedly—beginning upstream in call handling and triage categorization and extending through on-scene assessment, referral decisions, and non-conveyance—yet the decisive feature of the system is that these judgments are embedded within standardized protocols and pathways designed to reconcile individual clinical risk with population-level resource constraint (Bradley Report, 2005; NHS England, 2011, 2017). Discretion is therefore not “outside” governance; it is produced through governance, and it remains legitimate insofar as it can be articulated within centrally defined categories of urgency, appropriateness, and pathway compliance (NHS England, 2011, 2017).

The vignette is analytically instructive for precisely this reason: the patient experiences discretion as consequential but largely invisible, while the system experiences it as a set of decisions that must be classifiable, documentable, and reviewable (NHS England, 2017).

In this case, discretion is structured through path-dependent institutional development in which ambulance services were incorporated into a national health system as a statutory public function rather than constituted as an autonomous clinical profession. The National Health Service Act 1946 established a centralized governance settlement that treated ambulance provision as standardized public infrastructure and located clinical authority outside the ambulance workforce itself (National Health Service Act, 1946). Subsequent organizational consolidation deepened rather than displaced this settlement: the National Health Service Reorganisation Act 1973 transferred ambulance services into NHS administrative hierarchies, stabilizing national authority over organization and oversight without creating a route to professional self-governance (National Health Service Reorganisation Act, 1973). The mechanism identified in the chapter is institutional layering: expansions in frontline judgment occur, but they do so through nationally sequenced reforms that preserve centralized governance rather than through decentralization or bottom-up professional capture (Bradley Report, 2005; Millar Report, 1979; NHS England, 2011, 2017, 2019).

Authority in England is allocated vertically in a way that makes discretion operationally expansive but institutionally owned. Frontline clinicians exercise task-level judgment in real time, particularly around assessment and disposition, but the authorization and evaluation of that judgment are located in national guidance, regulatory oversight, and performance governance (Bradley Report, 2005; NHS England, 2011, 2017). Upstream, centralized dispatch and scripted triage translate lay accounts into urgency categories that pre-structure the decision space before

crews arrive, effectively centralizing the initial allocation of risk and priority (NHS England, 2017). Downstream, organizational and system governance retain authority over what counts as "appropriate" discretion by binding judgment to nationally standardized pathways and documentation practices (NHS England, 2018, 2022). In this architecture, discretion is not primarily "possessed" by the profession as an independent jurisdiction; it is delegated conditionally to clinicians within a chain of oversight that preserves centralized definitional control over standards, performance, and legitimacy (Bradley Report, 2005; National Health Service Act, 1946).

Governance arrangements shape judgment by making discretion simultaneously more permissible and more surveilled. The chapter's evidence shows that discretion becomes feasible at scale where the incentive environment renders non-conveyance and referral decisions organizationally tolerable: emergency ambulance services are excluded from activity-based tariffs, decoupling revenue from transport volume and preventing conveyance from operating as a direct financial imperative (NHS England & NHS Improvement, 2019, 2022). This non-market funding structure does not remove constraint; it changes its form. Discretion is bounded not by transport-driven reimbursement pressure but by administrative requirements that make judgment auditable—particularly through performance measurement and contractual obligations emphasizing defensibility, documentation, and appropriate pathway use (NHS England, 2011, 2018, 2022). The shift from response-time dominance toward broader clinical and outcome-oriented indicators is analytically central here: Ambulance Quality Indicators and the Ambulance Response Programme expand the recognized scope of legitimate discretion (e.g., prioritization, non-conveyance, and on-scene decision-making) while simultaneously embedding these practices more deeply within standardized metrics and review regimes (Department of Health,

1996; NHS England, 2011, 2015, 2017). Discretion expands, but it expands as a governable output.

This produces a distinct institutional logic governing discretion in England: centralized stewardship through conditional delegation. Under this logic, discretion is treated as necessary for managing uncertainty and demand, but its purpose is explicitly system-serving rather than autonomy-affirming (Bradley Report, 2005; NHS England, 2019). Judgment is valued to the extent that it supports collective objectives—risk management, appropriate pathway use, and system flow—and it is disciplined through national standards, performance governance, and vertically coordinated oversight rather than market discipline (Health and Care Act, 2022; NHS England, 2011, 2017). Integrated Care Systems extend this logic by positioning ambulance services within shared system accountability for flow and demand management, further reinforcing that discretion is exercised within collectively governed pathways rather than as organization-specific prerogative (Health and Care Act, 2022; NHS England & NHS Improvement, 2021).

Within this institutional arrangement, discretion is bounded through conditions of justification rather than through categorical prohibition. Discretion is legitimate when it is legible within the system's evaluative grammar—documented, pathway-consistent, and defensible under clinical governance and performance criteria (NHS England, 2011, 2017, 2018). Conversely, discretion becomes suspect when it cannot be translated into that grammar—when decisions appear idiosyncratic, insufficiently documented, or misaligned with standardized categories of urgency and appropriateness that governance regimes are designed to monitor (NHS England, 2011, 2017). The centralization–decentralization pattern follows from this: discretion is decentralized in execution (frontline clinicians decide), but centralized in authorization and

evaluation (national frameworks define what counts as acceptable judgment and how it will be assessed) (National Health Service Act, 1946; NHS England, 2011, 2017). The result is a stabilized equilibrium in which professional judgment is expanded as a functional requirement of system performance, yet continuously rendered governable through administrative surveillance and centrally coordinated accountability structures (Bradley Report, 2005; NHS England, 2011, 2017, 2019).

6.3. Discretion as an Institutional Outcome: Theoretical Implications

The U.S. and England cases compel a reorientation in how discretion is theorized within governance and professional authority literatures. Across both institutional contexts, discretion does not appear as an implementation residue, an informal deviation from rules, or an episodic response to frontline complexity. Instead, it emerges as a systematically produced feature of institutional design—one that is actively authorized, allocated, and stabilized through governance arrangements that structure how uncertainty is managed and where judgment is permitted to reside. This finding challenges approaches that treat discretion as analytically secondary to formal rules or as a behavioral artifact of street-level work, and instead positions discretion as a core institutional outcome whose scope and legitimacy vary across governance regimes.

A central implication of this analysis is that discretion cannot be understood as incidental to institutional order. Classical accounts in public administration and implementation scholarship correctly identify discretion as unavoidable wherever rules confront complexity and indeterminacy (Lipsky, 1980; Mashaw, 1983; Pratt & Sossin, 2009). Yet the evidence presented here demonstrates that inevitability does not imply uniformity. The level, location, and durability of discretionary authority vary systematically even in settings characterized by similar professional tasks and comparable forms of uncertainty. This variation cannot be explained by

reference to rule incompleteness alone. Rather, it reflects institutional choices about how much judgment a system is willing to tolerate, who is trusted to exercise it, and how discretionary action is rendered accountable. Discretion, in other words, is not simply what remains when governance ends; it is one of the ways governance operates.

By foregrounding institutional design, the dissertation extends governance-centered accounts that focus primarily on constraint, oversight, and control. Formalization, performance regimes, and accountability mechanisms are often treated as efforts to reduce or suppress discretion. The cases analyzed here demonstrate instead that such mechanisms reorganize discretionary space by redistributing judgment across actors and decision points. Governance does not eliminate discretion; it shapes its form. Protocols, triage systems, performance indicators, and oversight structures determine whether discretion is exercised upstream or downstream, whether it is concentrated or fragmented, and whether it is treated as legitimate judgment or as risk requiring containment (Mashaw, 1983; Evans, 2003). Institutional design thus functions not only as a constraint on discretion but as a generative force that produces specific configurations of discretionary authority.

This perspective also reframes debates about professional authority. Much of the discretion literature implicitly equates discretion with professional autonomy or treats professional expertise as a sufficient basis for discretionary power. The findings here unsettle that assumption. In both cases, clinicians possess substantial expertise, yet the scope of their discretionary authority differs markedly because institutions convert epistemic authority into decision-making authority in different ways. Professional knowledge becomes consequential only when governance arrangements authorize it as a legitimate basis for action without routine override or procedural displacement (Evans, 2003; Noordegraaf, 2020). Discretion therefore

depends less on professional status per se than on institutional recognition of professional judgment as authoritative. This insight challenges behavior-centric accounts that attribute variation in discretion to individual judgment or professional culture and underscores the importance of institutional context in shaping when expertise carries decision-making power.

The analysis further clarifies how discretion is bounded and rendered legitimate. Across cases, discretion is not constrained primarily through prohibition but through conditions of justification. Governance systems establish evaluative grammars that define what counts as defensible judgment, privileging forms of discretion that are legible, documentable, and compatible with organizational or system-level objectives (Pratt & Sossin, 2009; Wallander & Molander, 2014). Discretion becomes suspect not because it exists, but because it resists classification or exceeds the justificatory frames embedded in governance arrangements. This mechanism helps explain why discretion can expand in practice while remaining tightly governed: institutional systems can tolerate judgment so long as it can be rendered accountable within established categories of evaluation.

At a higher level of abstraction, the findings suggest that discretion should be theorized as a relational property of institutional systems rather than as a feature of individual roles or organizational locations. Discretion is produced through relationships among the state, organizations, and professionals, and it is stabilized through feedback mechanisms that reinforce particular authority allocations over time. This relational view aligns with historical institutionalist insights regarding path dependency and institutional reproduction, highlighting how early design choices establish durable baselines for professional authority that subsequent reforms tend to layer upon rather than displace (Pierson, 2004; Streeck & Thelen, 2005).

Discretion thus becomes a site where institutional history and contemporary governance intersect, shaping how much judgment is possible and how it is exercised.

Importantly, this theoretical framing renders the argument portable beyond the cases examined. By identifying discretion as an institutional outcome produced through authority allocation, accountability design, and institutional stabilization, the dissertation offers a framework that can be applied to other professional domains characterized by uncertainty and public accountability. The argument does not depend on sector-specific features of emergency medicine, but on generalizable mechanisms through which governance systems manage judgment. Discretion varies not because some professionals are more willing to decide than others, but because institutions differ in how they organize authority, manage risk, and legitimate judgment.

In this sense, the dissertation advances a shift in how discretion is theorized: from a residual category that absorbs the limits of rules, to a structured feature of institutional design that reflects deliberate choices about governance and authority. This shift allows discretion to be treated as an object of explanation rather than a background condition, providing a basis for analyzing variation across jurisdictions and over time. By integrating insights from governance, professional authority, and historical institutionalism, the analysis moves discretion from the margins of theory to the center of institutional analysis.

6.4. Revisiting the Hypotheses and Causal Expectations

This dissertation advanced a set of hypotheses and causal expectations centered on the proposition that variation in professional discretion is produced through institutional development and governance design rather than through task characteristics or individual behavior alone. The purpose of returning to these expectations here is not to adjudicate them in

terms of confirmation or rejection, but to assess their plausibility in light of the empirical patterns observed and the mechanisms identified across cases. The discussion therefore treats the hypotheses as heuristic devices that organized inquiry, rather than as propositions subject to formal testing.

Across both cases, the core expectation that discretion would vary systematically with institutional arrangements rather than with clinical uncertainty alone finds strong causal grounding. In neither setting does discretion emerge simply because frontline actors confront indeterminate situations. Instead, discretion takes shape through historically embedded authority allocations that determine when judgment is permissible, who may exercise it, and how it is evaluated. This pattern supports the expectation, developed in the theory chapter, that discretion should be understood as an institutional outcome rather than as an implementation residue (Lipsky, 1980; Mashaw, 1983; Evans, 2003). What varies across cases is not the presence of discretion, but its structure—specifically, how it is authorized, bounded, and stabilized through governance mechanisms.

The mechanisms most salient in the U.S. case align closely with expectations regarding fragmented authority and performance-oriented governance. Discretion is authorized conditionally, exercised within narrow protocol-defined margins, and displaced across organizational, managerial, and medical oversight layers rather than consolidated within the profession itself (Institute of Medicine, 2007; Shah, 2006; Centers for Medicare & Medicaid Services, 2019). The evidence indicates that discretion persists not because governance is weak, but because multiple actors rely on bounded judgment to manage operational complexity. However, that judgment remains tightly constrained by reimbursement structures, liability concerns, and performance metrics that render deviation costly or risky. These dynamics are

consistent with the expectation that market exposure and administrative performance regimes would not eliminate discretion but would reorient it toward efficiency, transport compliance, and organizational defensibility rather than toward autonomous clinical resolution.

At the same time, the U.S. findings complicate any expectation that discretion would simply contract under conditions of protocolization and oversight. Instead, discretion remains present but fragmented—distributed across actors and decision points in ways that obscure its exercise while preserving institutional control. This fragmentation underscores an important qualification: governance arrangements can sustain discretion while simultaneously making it less visible and less attributable to professional authority. The causal mechanism here is not suppression but displacement, suggesting that discretion can persist even in highly rule-bound systems so long as institutions rely on judgment to reconcile competing objectives (Mashaw, 1983; Pratt & Sossin, 2009).

In the English case, the causal expectations concerning centralized governance and conditional delegation are likewise borne out, though through a distinct configuration of mechanisms. Discretion expands in scope—particularly around triage, non-conveyance, and referral—not through professional autonomy but through centrally authorized reforms that explicitly redefine ambulance work while preserving national oversight (Bradley Report, 2005; NHS England, 2011, 2017). The evidence supports the expectation that centralized systems can accommodate substantial frontline judgment without decentralizing authority, provided that discretion is rendered administratively legible and evaluable. Here, discretion is bounded less by task limitation than by justificatory requirements: judgment is legitimate when it aligns with standardized pathways and performance frameworks, and suspect when it resists classification or documentation (NHS England, 2011, 2017).

The English findings also qualify initial expectations by demonstrating that expanded discretion does not necessarily imply expanded professional authority in a jurisdictional sense. Although clinicians exercise consequential judgment, authority over standards, evaluation, and risk allocation remains centralized. This distinction clarifies the mechanism through which discretion is stabilized: conditional delegation allows the system to rely on professional judgment while retaining control over its meaning and limits. The causal plausibility of this mechanism is reinforced by the observed durability of the arrangement across reform cycles, consistent with historical institutionalist expectations regarding layering and path dependency (Pierson, 2004; Streeck & Thelen, 2005).

The cases suggest that the most analytically salient mechanisms are those that operate at the level of institutional design rather than at the level of individual behavior. Authority allocation, accountability structuring, and institutional stabilization repeatedly emerge as the channels through which discretion is produced and patterned. Where expectations are complicated, they are complicated not because discretion behaves unpredictably, but because it is multi-dimensional: discretion can expand in task scope while contracting in justificatory latitude; it can be decentralized in execution while centralized in authorization; and it can be indispensable to system functioning while remaining politically and professionally constrained.

Framed in these terms, the hypotheses advanced by the dissertation retain strong causal plausibility. They illuminate how and why discretion varies across governance contexts without relying on assumptions about professional motivation or implementation failure. Rather than treating discretion as an epiphenomenon, the analysis shows how it is actively constituted through institutional arrangements that balance control and judgment in different ways.

Revisiting the hypotheses in this light underscores the central contribution of the study: discretion is not merely shaped by institutions—it is one of the ways institutions govern.

6.5. Implications for the Study of Discretion

The central implication of this dissertation is that discretion must be treated as a primary institutional outcome rather than as a residual feature of implementation or an informal byproduct of professional practice. Across both cases, discretion does not emerge simply where rules run out or where frontline actors confront unanticipated complexity. Instead, it is actively produced through governance arrangements that define where judgment is permitted, how it is exercised, and under what conditions it is recognized as legitimate. This finding challenges accounts that treat discretion as analytically secondary—either as noise introduced by implementation gaps or as an unavoidable deviation from formal policy intent (Lipsky, 1980; Mashaw, 1983). The evidence suggests that discretion is not merely encountered by institutions; it is constructed by them.

Much of the discretion literature implicitly assumes that discretionary space arises from indeterminacy, ambiguity, or the limits of formal rules. From this perspective, discretion is often framed as something that persists despite governance rather than because of it. The analysis here unsettles that assumption. In both the U.S. and England, discretionary authority is not left to emerge organically at the point of care. It is explicitly structured through institutional design choices concerning delegation, oversight, performance evaluation, and accountability. These arrangements do not eliminate discretion; they specify its location, scope, and durability. Discretion thus appears not as a failure of rule-based governance, but as one of its designed outputs (Mashaw, 1983; Pierson, 2004).

Treating discretion as an institutional outcome also clarifies why it cannot be understood as incidental or residual. In both cases, discretionary authority appears to be too patterned, too durable, and too systematically aligned with governance objectives to be explained as an unintended consequence of complexity alone. Decisions about whether clinicians may refuse transport, resolve cases at the scene, or redirect patients to alternative pathways are not ad hoc accommodations. They are the result of deliberate institutional choices about risk allocation, responsibility, and control. Governance arrangements define not only what professionals may do, but what kinds of judgment are expected, defensible, and auditable (Pratt & Sossin, 2009; Wallander & Molander, 2014). Discretion, in this sense, is not the remainder left after governance operates; it is one of the means through which governance operates.

This perspective extends existing theories of discretion by shifting analytical attention away from individual behavior and toward institutional production. Behavior-centric accounts emphasize how frontline actors interpret rules, manage workload, or respond to incentives under conditions of scarcity. Implementation-centric accounts focus on gaps between policy design and practice. While these approaches illuminate how discretion is exercised, they offer limited leverage for explaining why discretion takes particular forms in particular systems. By contrast, the findings here show that variation in discretion is best explained by differences in institutional development and governance design rather than by professional disposition or situational constraint (Pierson, 2004; Streeck & Thelen, 2005).

The cases further demonstrate that discretion is deeply entangled with accountability rather than standing in simple opposition to it. Classic formulations often treat discretion as something that must be constrained to preserve accountability, implying a trade-off between judgment and control. The evidence here suggests a different relationship. Governance systems

do not simply limit discretion through oversight; they render discretion governable by shaping how it is documented, evaluated, and reviewed. Performance frameworks, audit mechanisms, and clinical governance structures do not eliminate judgment, but they determine which discretionary acts are legible and sustainable within the system (Mashaw, 1983; Pratt & Sossin, 2009). Accountability thus operates as a constitutive condition of discretion, not merely as an external constraint upon it.

Understanding discretion as institutionally produced also clarifies its relationship to state authority. In both cases, the state does not retreat from discretionary domains, nor does it govern them exclusively through command-and-control regulation. Instead, state authority is exercised through the selective delegation of judgment and through the design of mechanisms that condition how that judgment is used. Discretion becomes a means through which the state manages uncertainty indirectly, relying on professional expertise while retaining control over priorities, standards, and acceptable risk (Mashaw, 1983; Pierson, 2004). From this standpoint, discretion is not evidence of weak governance, but of a particular mode of governing under conditions of complexity.

Crucially, discretion also emerges as a site of political choice. Decisions about how much discretion to authorize, where to locate it, and how tightly to bind it reflect normative judgments about trust, responsibility, and the distribution of risk. These choices are embedded in institutional design rather than resolved at the level of individual decision-making. By treating discretion as an outcome of governance arrangements, the analysis makes visible the political work performed by institutional design choices that are often treated as technical or administrative (Streeck & Thelen, 2005; Wallander & Molander, 2014).

Finally, conceptualizing discretion in this way makes the argument portable beyond the immediate cases. The framework developed here does not depend on the specific features of EMS, medicine, or emergency care. It offers a way to analyze discretion across policy domains by asking how institutional arrangements authorize judgment, stabilize its use, and render it accountable. In domains such as education, social services, environmental regulation, and other high-stakes areas of public governance, discretion is likewise structured through institutional design rather than left to emerge incidentally (Lipsky, 1980; Pratt & Sossin, 2009). Treating discretion as an institutional outcome therefore extends discretion theory by providing a generalizable lens for explaining patterned variation in judgment across governance contexts.

In sum, the dissertation advances discretion scholarship by repositioning discretion as a central object of institutional explanation. Discretion is neither an implementation failure nor a behavioral residue. It is a deliberately structured feature of governance systems, produced through institutional development and design choices that shape how judgment is exercised, bounded, and legitimated over time.

6.6. Scope Conditions and Limits of the Argument

The argument advanced in this dissertation is deliberately bounded. Its purpose is not to generate a universal theory of discretion applicable across all professional domains, governance levels, or institutional settings, but to specify the conditions under which discretion is most productively understood as an institutional outcome of governance design. Clarifying where the argument should travel—and where it should not—is therefore essential to preserving its analytical force. The value of the contribution lies not in its breadth, but in the precision with which it identifies mechanisms that explain patterned variation in professional discretion under particular institutional conditions.

The argument is intended to travel across professional domains characterized by three core features: high stakes, persistent uncertainty, and public accountability mediated through state institutions. In such settings, rules alone are insufficient to govern outcomes, yet unfettered autonomy is politically and administratively untenable. Under these conditions, governance systems must rely on delegated judgment while simultaneously managing its risks. The framework developed here—focusing on authority allocation, accountability design, and institutional stabilization—offers analytic leverage precisely in these contexts. Where discretion functions as a necessary governance resource rather than as an exceptional deviation, institutional design becomes central to explaining its scope and legitimacy.

At the same time, the argument should not be extended indiscriminately. It is not designed to explain discretion in domains where professional authority is weak, informal, or primarily market-based, nor where decision-making is routinized to the point that judgment plays a minimal role. Similarly, the framework is not intended to capture settings in which discretion is largely individualized and insulated from institutional oversight, such as purely private professional practice or artisanal forms of expertise. In such cases, discretion may be better understood through behavioral, cultural, or micro-organizational lenses than through the governance-centered approach advanced here. The argument gains clarity by resisting such extensions.

Emergency medical services function in this study as a revealing but bounded site for theoretical development. EMS is analytically valuable because it occupies a liminal position between medicine, emergency response, and public administration. Clinical decisions are consequential and time-sensitive, uncertainty is intrinsic rather than exceptional, and professional judgment is unavoidable. At the same time, EMS operates under unusually explicit governance

arrangements, including standardized protocols, centralized oversight, and performance regimes that render discretion visible and contestable. These features make EMS a particularly sharp lens through which to observe how institutions actively produce, allocate, and constrain discretionary authority.

Yet EMS is not treated here as representative of all medical practice. The argument does not assume that the dynamics observed in emergency medicine map directly onto specialties with different temporalities, patient relationships, or governance structures. Rather, EMS serves as a strategic case through which broader theoretical claims about discretion and governance can be developed and specified. Its extremity—high risk, compressed decision-making, and dense oversight—clarifies mechanisms that may operate more subtly elsewhere. In this sense, EMS strengthens the argument precisely because it foregrounds tensions between judgment and control that are often obscured in less acute settings.

A further scope condition concerns the focus on state-level governance arrangements. The dissertation centers on how discretion is structured within state systems, tracing how national or subnational institutions allocate authority and design accountability. This focus necessarily brackets other sources of influence, including transnational professional networks, organizational micro-politics, and individual moral reasoning. These factors undoubtedly shape professional behavior, but incorporating them would obscure the specific contribution of the study: explaining how variation in discretion emerges from institutional design rather than from actor-level preferences or capacities. By holding these factors constant or treating them as background conditions, the analysis isolates the role of governance in producing discretionary space.

Importantly, these limits strengthen rather than weaken the contribution. By refusing to collapse discretion into a catch-all concept, the dissertation preserves its explanatory clarity. By resisting the temptation to generalize beyond the conditions under which the argument is theoretically grounded, it avoids overstating its claims. The result is an argument that is portable but not promiscuous: one that specifies mechanisms that can be sought in other contexts without assuming their universal presence.

Analytic discipline of this kind is especially important in debates on discretion, which often oscillate between overgeneralization and excessive particularism. By clearly delineating its scope conditions, the dissertation positions discretion as an object of institutional analysis that can be studied comparatively without being flattened into either individual behavior or abstract theory. The limits of the argument are therefore not boundaries of relevance, but markers of where its explanatory power is most appropriately applied. In this sense, the contribution of the dissertation lies as much in what it does not claim as in what it does. By specifying where discretion should be analyzed as an institutional outcome—and where other lenses may be more appropriate—the study advances a more disciplined and cumulative approach to the study of professional authority and governance.

6.7. Directions for Future Research

The central contribution of this dissertation is to re-specify discretion as an institutional outcome produced through governance design rather than as a residual feature of implementation or an attribute of individual actors. Future research can extend this insight by examining how discretionary space is structured, allocated, and stabilized across a wider range of professional and policy contexts. The value of such extensions lies not in correcting the present analysis, but

in testing the portability of its core mechanisms—authority allocation, accountability design, and institutional stabilization—under different configurations of uncertainty and control.

One important direction concerns other professional domains in which discretion is both unavoidable and politically salient. Much of the discretion literature remains anchored in street-level bureaucratic settings, where discretion is treated as a response to rule incompleteness or resource scarcity (Lipsky, 1980; Mashaw, 1983). Extending the framework developed here to professions such as nursing, social work, teaching, environmental regulation, or immigration adjudication would allow scholars to examine whether discretion in these settings is similarly produced through institutional design rather than simply tolerated at the margins of policy. Such work could clarify whether discretion is concentrated at the point of service delivery, displaced upward into managerial or algorithmic decision-making, or redistributed across organizational layers in response to governance reform.

A second direction involves extending the analysis across policy domains characterized by different risk profiles and temporalities. Emergency medical services represent a particularly acute site of discretionary decision-making, where uncertainty is compressed and outcomes are immediate. Future research could examine domains in which discretionary judgment unfolds over longer time horizons—such as child welfare, disability determination, or environmental permitting—to assess whether institutional design produces similar patterns of bounded and legitimized discretion. Doing so would help specify whether the mechanisms identified here operate primarily under conditions of acute risk, or whether they generalize to settings where discretion is exercised more incrementally but remains consequential (Pratt & Sossin, 2009; Wallander & Molander, 2014).

Further extensions could examine how discretion is structured under alternative institutional arrangements. The cases analyzed in this dissertation focus on state-centered governance systems in which discretion is embedded within public authority. Future research might explore settings where discretion is shaped by hybrid or transnational governance regimes, including public–private partnerships, regulatory outsourcing, or supranational coordination. Such contexts raise distinct questions about how discretionary authority is authorized and rendered legitimate when accountability is fragmented or shared across institutional boundaries. Historical institutionalist approaches would be particularly well suited to tracing how discretionary space evolves in these settings through processes of layering and gradual institutional change (Pierson, 2004; Streeck & Thelen, 2005).

Importantly, future research should resist the temptation to treat discretion as a fixed quantity that expands or contracts uniformly across contexts. One of the key insights of this study is that discretion can expand along one dimension while contracting along another: it may become more central to task execution while becoming more tightly bounded in its justificatory logic; it may be decentralized in practice while centralized in authorization. Extending the framework therefore requires attention to the *form* of discretion, not merely its presence or absence. Comparative work that disaggregates discretion along these dimensions would deepen understanding of how governance systems manage judgment rather than simply constrain it.

These directions underscore that the contribution of the dissertation lies in reframing discretion as an object of institutional analysis. Future research can build on this reframing by identifying where similar governance mechanisms operate, how they interact with professional expertise, and under what conditions they produce stable or contested discretionary arrangements. Such extensions would advance discretion scholarship by moving beyond debates

over whether discretion exists, toward systematic explanations of how discretionary space is designed, governed, and legitimized across institutional contexts.

In this sense, the most productive future work will not seek to replace existing discretion theories, but to extend them by integrating institutional design into their core explanatory logic. By doing so, scholars can better account for variation in discretion across professions, policy domains, and governance systems—without reducing discretion to either individual behavior or implementation failure.

6.8. Conclusion: Discretion, Governance, and Institutional Design

This dissertation advances a simple but consequential claim: discretion is not a residual feature of implementation or an incidental byproduct of professional expertise, but a form of institutionally organized authority. Across the cases examined, discretion emerges as a patterned and durable outcome of governance design—authorized, allocated, and stabilized through institutional arrangements that determine how judgment is exercised, evaluated, and protected. Variation in professional discretion is therefore not best explained by task complexity, professional culture, or rule failure. It reflects how institutions organize authority under conditions of uncertainty.

Reframing discretion in this way changes how it should be studied. Rather than locating discretion at the point where rules break down or professionals deviate, the analysis directs attention to the institutional architectures that produce discretionary space before judgment is ever exercised. Discretion expands or contracts not as an anomaly, but as a consequence of how governance systems allocate authority, structure accountability, and reproduce these arrangements over time. From this perspective, discretion is neither a failure of control nor a proxy for autonomy; it is one of the mechanisms through which governance operates.

The conceptual takeaway is direct: discretion is not something institutions merely accommodate—it is something they actively create. Studying discretion therefore requires studying institutions, not only their formal rules, but the ways they organize authority, render judgment legitimate, and stabilize decision-making across contexts. Understood in this way, discretion becomes a lens through which the deeper logic of governance itself comes into view.

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