2011

Returning Attention to Policy Content in Diffusion Study

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RETURNING ATTENTION TO POLICY CONTENT IN DIFFUSION STUDY

by

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A DISSERTATION

Presented to the Faculty of

The Graduate College at the University of Nebraska

In Partial Fulfillment of Requirements

For the Degree of Doctor of Philosophy

Major: Political Science

Under the Supervision of Professor Kevin B. Smith

Lincoln, Nebraska

October, 2011

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University of Nebraska, 2011

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Policy diffusion research pays virtually no attention to policy content. Yet we should expect content to shape the adoption of *any* policy—this is what legislators and policy makers, after all, fight about. Thus the extent and speed of diffusion likely critically depend on policy content, which the current literature virtually ignores. This dissertation shows how we can better understand policy diffusion by taking policy content seriously. Paying attention to policy content, including how it is debated and understood by legislators, has immediate payoffs in the sense that two literatures largely ignored until now by diffusion researchers—policy typologies and policy design—suggest important explanations for the ease or difficulty of adoption. Though new and rarely used, the theoretical model I employ—the epidemiological model—has the potential to offer a much more comprehensive explanation of policy diffusion. By demonstrating the importance of policy content, this dissertation supports a key element of that model (the policy conceived of as a virus) and helps show the utility of the model. By immediately focusing attention on content, the viruses portion of the epidemiological model offers a clear advantage over the methods-driven event history analysis framework that has dominated the policy diffusion field. Employing the epidemiological model provides a path to making the policy sciences more scientific, which can lead to bringing other scholars in by making policy diffusion research interesting and accessible to those from other disciplines. Overall, this dissertation promotes more-scientific policy research, and provides a way to make this more-scientific policy research easier to complete.

DEDICATION

For Lillian Frances Fulwider.

ACKNOWLEDGEMENTS

I thank my Lord and Savior Jesus Christ, my only hope in this world. My loving wife Jami Lynn Kirkvold Fulwider supported me with patient endurance, and provided indispensable organizational and bibliographic assistance. My adviser Kevin B. Smith was the sort every student should have: Deeply kind, and always going beyond the call of duty to facilitate his students' success. My reader Elizabeth Theiss-Morse provided detailed comments on first drafts, greatly smoothing the composition process. My two best friends in academia have been Levente Littvay and Jeremy Teigen; I would not have reached the dissertation stage without them. David Moore provided essential statistical support. Numerous academic colleagues gave selflessly of their time and talents to aid this effort directly or indirectly, among them Amanda Balzer, Frank Baumgartner, Graeme Boushey, Randall Bowdish, John Comer, Calvin Garbin, Kelly Greenhill, Bryan Jones, Meredith McGinley, Douglas Oxley, David Weaver, and Eric Whitaker. Jonathan Gregory, Brad Riddle, and Justin Smith provided encouragement and support.

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Chapter 1

Introduction

Policy diffusion research as it stands pays virtually no attention to policy content. Yet it seems reasonable to expect that content is going to shape the adoption of *any* policy—this is what legislators and policy makers, after all, fight about. This being the case, the extent and speed of diffusion are likely to be critically dependent on policy content, which is virtually ignored by the current literature, which tends to focus on things like geographical proximity and ideological similarity of political jurisdictions.

The reason for the lack of interest in policy content is strongly tied to the dominant conceptual model in the literature. And this really is less a conceptual model than a particular quantitative method, event history analysis. While the method certainly has its uses, to make it tractable means using variables that can be readily measured at the chosen unit of analysis (the state-year), and for practical data-gathering purposes that tends to shut out policy content, which can become very messy and idiosyncratic to a particular time and place. The end result of this is that policy diffusion research has hit a dead end more or less of its own making—it's become defined less by theory and more by a method that has been tied to the limitations of available data, and this has severely limited the whole literature's ability to address important questions of why governments do/do not adopt policies.

Thus this dissertation's **first and key contribution**: Showing the potential implications for understanding policy diffusion if policy content is taken seriously. Taking policy content seriously—and this includes how it is debated and understood by legislators—has immediate payoffs in the sense that two literatures hitherto largely ignored by diffusion researchers—policy typologies and policy design—suggest important explanations for ease/difficulty of adoption. In this chapter I lay the groundwork for one theoretical and two

empirical chapters that focus much-needed attention on policy content. In Chapter 2 I describe the benefits of using an epidemiological model in policy research, one that conceives of policies as viruses that infect state hosts via interest group and policy entrepreneur vectors. I use this model to review and synthesize the literature to show the positive implications of taking policy content seriously. In Chapter 3, I explore in depth the legislative debate over infertility insurance mandates in three states. Focusing on policy type as a useful summary of policy content, I show that a policy case seemingly too difficult to type because of its morality and regulatory characteristics could indeed be typed as regulatory by looking at the characteristics to which legislators attended. I also explore the extent to which legislators discuss target populations and vector messages in legislative debate. In Chapter 4 I continue my focus on policy characteristics by using a curve analysis method to test the decisions other scholars have made in classifying policies as either regulatory or morality. With this method I also test the policy type classification I make for infertility insurance mandates in the previous chapter, and show how the method could be useful as a data-reduction technique in future research.

This exploratory effort has potentially big theoretical implications. Though new and rarely used, the theoretical model I employ—the epidemiological model—has the potential to offer a much more comprehensive explanation of policy diffusion. By demonstrating the importance of policy content, this dissertation supports a key element of that model (the policy conceived of as a virus) and in doing help show the utility of this model. This constitutes the dissertation's **second contribution**. By immediately focusing attention on content, the viruses portion of the epidemiological model offers a clear advantage over the methods-driven framework that has dominated the policy diffusion field. Employing the epidemiological model leads to the **third contribution,** providing a path to making the policy sciences

more scientific, which then leads to the **fourth contribution,** bringing other scholars in by making policy diffusion research interesting and accessible to those from other disciplines. This fourth contribution then **circles back** to the first contribution, because it makes it easier to take policy content seriously. Overall, my dissertation promotes more-scientific policy research, and provides a way to make this more-scientific policy research easier to complete.

Why should we care? There are practical and philosophical reasons, both taken from eminent biologist and philosopher of science E.O. Wilson. The practical reason (1998, p. 13):

> Already half the legislation coming before the United States Congress contains important scientific and technological components. Most of the issues that vex humanity daily—ethnic conflict, arms escalation, overpopulation, abortion, environment, endemic poverty, to cite several most persistently before us—cannot be solved without integrating knowledge from the natural sciences with that of the social sciences and humanities.

The philosophical reason (1998, p. 13):

> A balanced perspective cannot be acquired by studying disciplines in pieces but through pursuit of the consilience among them. Such unification will come hard. But I think it is inevitable. Intellectually it rings true, and it gratifies impulses that rise from the admirable side of human nature. To the extent that gaps between the great branches of learning can be narrowed, diversity and depth of knowledge will increase. They will do so because of, not despite, the underlying cohesion achieved. The enterprise is important for yet another reason: It gives ultimate purpose to intellect. It promises that order, not chaos, lies beyond the horizon.

The key thing, then, is the epidemiological model I develop in this dissertation. It binds together this entire dissertation because it solves most easily each of the problems I identify. It does this by offering an easy path to Wilson's (1998) consilience—or the unity of knowledge—both within the policy diffusion portion of the policy sciences, and between the

policy sciences and other knowledge endeavors like biology and law. The epidemiological model generates the simplest answers to the research questions I pose.

More importantly in light of the practical and philosophical reasons noted above, the epidemiological generates answers most accessible to scholars from other disciplines. Addressing the less-than-scientific nature of the policy sciences requires help from other scholars, and conveniently the epidemiological model opens the policy sciences to study by multidisciplinary teams I argue will discover more about policy than political scientists working alone.

And how do we achieve all this? By organizing all our work in a framework anyone inside or outside political science can understand. The epidemiological model is a simpler way of organizing our thinking about policy diffusion. Has a policy (virus) been adopted in (infected) a state (host)? If so, some policy entrepreneur (vector) must have brought it there, perhaps from a nearby state (natural environment). Virus, host, vector, environment—it's an easy four-item checklist to ensure you're thinking about all the relevant factors, and it's important to have this checklist because policy diffusion scholars do not usually think about all the relevant factors. Instead, as I alluded to earlier and will show in greater detail in Chapter 2, they tend to focus on state, or host, characteristics—sometimes including information about the vectors and environment, but rarely addressing the virus, or policy characteristics. The ordinary policy diffusion model is underspecified, thus making it less useful than the epidemiological virus/host/vector/environment model.

"All models are wrong, but some are useful," statistics professor George E.P. Box wrote. I would add with a nod to George Orwell that some models are more useful than others. To wit, Table 1:

(Table 1 about here.)

On the most important variable most policy diffusion models omit, policy characteristics, here are just a few examples of other scholars' critiques to whet the reader's appetite for the critique I fully develop in Chapter 2:

> Most state policy diffusion research assesses the correlates of the adoption of a policy without assessing how it may have been altered as it diffused from state to state. … Ignoring the question of policy content, as most state policy diffusion research has done, fails to address an important aspect of variation across space and time that has both theoretical and practical implications (Karch, 2007, p. 69).

> The second path along which future research should proceed is to treat policy content as an independent variable, examining how it could affect policy diffusion (Karch, 2007, p. 71).

> The factors that are likely to motivate state officials to adopt a new policy depend on the policy (Miller, 2004, p. 38).

Within and between the policy (virus), state (host), policy entrepreneurs (vector), and nearby state (environment) is where things get complicated and interesting. This dissertation focuses on the complications within the policy (virus). In other words, I focus attention on which characteristics of policy innovations themselves make them more likely to spread to new states—or, in epidemiological terms, what makes certain policy innovations more virulent than others. In so doing I demonstrate the additional analytical traction scholars can gain when they take policy characteristics seriously—as Theodore Lowi long ago urged, and a scattered few political scientists have more recently argued, to a mostly unreceptive audience.[1] It is primarily through studying policy characteristics that we will find solutions to the problems with policy diffusion I've identified will be found.

[1] Kind readers of previous versions of this manuscript have asked, "Is the epidemiological model only relevant

Developing the other portions of the model would take at least three more dissertations. But the next dissertation should probably be on policy entrepreneurs as vectors, since the lack of attention to policy entrepreneurs is a long-standing criticism of the diffusion literature (Savage, 1985; Mintrom, 2000), and the epidemiological model is one-quarter vectors.

There is just one instance of previous work with the epidemiological model in political science. The epidemiological model of policy diffusion provides a way to explain both sudden and rapid policy diffusion, as well as the more incremental policy development expected in an American federal system that acts to slow down change. Boushey (2010) argues current diffusion models can't distinguish between the rapid adoption of innovations like Amber Alert legislation and the slow and steady adoption of innovations like state lotteries. Boushey calls his version of the epidemiological model "diffusion dynamics—the processes underlying the stable, gradual diffusion of innovations over time and the sudden policy shocks precipitating positive feedback cycles and rapid policy mimicking across states." I am not concerned with rapid policy mimicking, as the infertility insurance mandate diffusion process is quite spread out over time. But the neat thing about this framework is it provides a single model for studying both slow and rapid change. So in a sense the difference between his and my work is he's trying to get the EHA literature alone to explain more; I'm trying to get all the other literature in to help the EHA literature explain more.

Ultimately, the epidemiological model ties this entire dissertation together because I want the epidemiological model to tie all the diffusion literature together, as Volden (2006, p. 34) calls for:

> As the scholarship on policy diffusion moves forward, it would be valuable to have a more systematic grounding in theory in order to structure the empirical work around broad and hopefully general claims.

There is no broader or more general cross-disciplinary claim than the epidemiological model.

This dissertation is a blend of Van Evera's (1997) type 1, theory-proposing, and type 3, literature-assessing. A Type 1 dissertation is defined this way (p. 89):

> A theory-proposing dissertation advances new hypotheses. A deductive argument for these hypotheses is advanced. Examples may be offered to illustrate these hypotheses and to demonstrate their plausibility, but strong empirical tests are not performed.

Under the theory-proposing rubric, I advance new hypotheses from epidemiological theory and offer examples that illustrate these hypotheses and demonstrate their plausibility. A Type 3 dissertation is defined this way (p. 90):

> A literature-assessing (or "stock-taking") dissertation summarizes and evaluates existing theoretical and empirical literature on a subject. It asks whether existing theories are valuable and existing tests are persuasive and complete.

Under the literature-assessing rubric, I criticize as less than ideal the theory and findings from the existing policy diffusion literature. To be clear, while I focus on a single policy here for expository purposes, this is not a policy diffusion study. It is a theoretical and methodological critique that offers a better way to approach policy diffusion narrowly and the policy sciences broadly, and uses some empirical illustrations to make its points.

I build illustrations of my points around case studies of how one policy innovation was handled in three states. I stick to this one policy, infertility insurance mandates, for three reasons. The first reason is my desire to retain the reader's focus on my theoretical and methodological arguments; I have a number of points to make, and to illustrate them with multiple policies would only lead to confusion. The second is the convenient suitability of infertility insurance mandates for illustrating an argument about focusing on policy characteristics. The insurance mandates, present in 16 states, represent an interesting confluence of regulatory and morality policy types. (Policy types are useful summaries of policy characteris-

tics, but these types have been overused somewhat in the literature. More on that later.) On the one hand insurance mandates are classically regulatory, in that the government is telling private businesses how to behave; on the other hand they have moral elements, in that some religious groups have moral objections to medical treatments for infertility such as in-vitro fertilization. Studying insurance mandates for infertility treatment contributes to a growing understanding in the policy diffusion literature that different types of policy diffuse differently; this understanding allows scholars to make better *a priori* predictions about how policy types diffuse, which can in turn lead to better policy diffusion theory. The third reason for choosing this policy case is personal interest; my wife and I were infertile for four years.

Questions Addressed

I structure the chapters around seven research questions. This being partly a theory-proposing dissertation, I advance new hypotheses but do not perform strong empirical tests of them.[2] I do suggest how to test each, and provide illustrations of how to begin those tests. The research questions are related in that they all illustrate the value of the epidemiological model. There are many questions that could be asked, and I offer some in the obligatory "directions for future research" section of the concluding Chapter 5. I've chosen to answer these research questions in an early stage, incremental development of this theoretical model. I and other scholars can get to the rest later.

The first research questions is, "What do we learn when we take policy characteristics seriously and place them within a model that unifies the diffusion literature and study a policy case that combines two major types the literature has treated separately, morality and regulatory?" I answer the question with a critical review that reevaluates, reframes and crea-

[2] Those desiring further assurance of my ability to perform strong empirical tests should see Whitaker & Fulwider, 2011; Fulwider, Greenhill, & Weaver, 2010; Fulwider, 2008; and Fulwider, 2006.

tively integrates several aspects of the policy literature, especially that on morality, regulatory and hybrid policy types and on policy design theory.

The first research question is worth asking because it:

- Develops one portion of a model, new to political science, that promises to unify the policy literature
- Integrates disconnected literatures on morality, regulatory, and hybrid policy types
- Reveals portions of existing policy models that should be re-conceived

I address this first research question in Chapter 2.

The second research question is, "Is it possible to classify policies that seem hopelessly hybrid?" I ask this question because there is a troubling trend in policy research to take the easy way out and declare policies hybrids, which is going in the wrong direction if we want a more scientific policy science.

The second research question is worth asking because it:

- Emphasizes the connection between policy type and the epidemiological model.
- Illustrates the more scientific approach we can take by focusing on policy characteristics.
- Addresses a policy case, infertility insurance mandates, that is particularly rich in theoretical implications and practical political importance and has regulatory and morality qualities that at first glance make it seem like a hybrid policy.
- Can best be answered with a method, case studies, neglected in the event history analysis-heavy policy diffusion literature.

- Provides a qualitatively derived empirical illustration of one of the dissertation's main points.

The third research question is, "Do positively and negatively constructed target populations get discussed in legislative debate?" The scholar who brought the epidemiological model to policy study left this as an unexplored assumption, so I explore it. Boushey (2010, p. 183) writes:

> If publics do, in fact, respond differently to innovations depending on how they confer benefits or burdens to targeted groups, then this should emerge in patterns of diffusion. Policies that meet with the expectations of social constructivist theory—those that proscribe benefits positively constructed groups or policy burdens to negatively constructed groups—should diffuse more rapidly and extensively than policies that challenge these expectations.

In other words, a policy's target population is an important policy characteristic that could well drive its diffusion speed. The infertility insurance mandates case is especially ripe for an Ingram and Schneider-style social constructivist inquiry because it's fairly bursting with target populations that could go either way—positively constructed mothers and negatively constructed insurance companies being just two examples.

The fourth research question is, "Do legislators attend to vector messages in legislative debate?" This is another assumption that was left unexplored when Boushey imported the epidemiological model. He writes (2010, p. 182):

> Political scientists have speculated that the selection of venues and issue frames is often haphazard, but have overlooked how interest groups develop their rhetorical strategies, select venues, and evaluate and act upon policy successes during diffusion campaigns. Research into the development of framing and venue-shopping strategies could take the form of a detailed case-study approach, perhaps involving … expert testimony in state legislatures to trace changes in the tone and content of interest-group-sponsored legislation.

Again, the infertility insurance mandates case is a good place to start this exploration because there is just one lobbying organization on infertility insurance mandates, Resolve,

with a very simple lobbying message: Infertility is a disease worthy of insurance coverage. Does that message come across? That's what I aim to find out.

Both the third and fourth research questions are worth asking because they let future scholars know what additional information is available from studying legislative debate closely and focusing on policy characteristics, and because they help develop the epidemiological model addressing assumptions Boushey did not explore when he imported it to political science.

I answer research questions two through four in Chapter 3.

The fifth research question is, "Do policy type classifications in the literature stand up to confirmation with diffusion curve analysis?" This question is worth asking because making the policy sciences more scientific requires the replication, confirmation, and extension I perform in answering the question. The more we replicate and confirm judgments about policy type through diffusion curve analysis, the more we assemble groups of similar diffusion curves, and the more we can make confident *a priori* predictions about diffusion speeds for classes of policy. This is as important for policy study as publication of effect sizes is in designing experiments with sufficient power to find statistically significant differences.

The sixth research question is, "Does the regulatory policy classification of infertility insurance mandates stand up to confirmation with diffusion curve analysis?" This question is worth asking because in answering it, I practice what I preach—that policy type classifications are important enough to justify a second confirmatory step.

The seventh research question is, "What contributions can diffusion curve analysis make to future policy research?" This question is worth asking because curve analysis is a simple method for quickly making preliminary decisions about policy types by examining

their diffusion speeds. It is easy to understand, can be implemented in a spreadsheet, and provides obvious visual hypothesis testing. For this reason, it will be a useful data-reduction tool when policy scholars start publicly sharing their state-level diffusion datasets.

I answer research questions five through seven in Chapter 3.

Methods

I follow Gray's (1994) and Miller's (2005) recommendations that policy researchers integrate qualitative and quantitative methods. I use the former to answer my Chapter 3 research questions and the latter to answer my Chapter 4 research questions.

I employ a comparative case study method in Chapter 3 to determine how lawmakers treat policies with difficult combinations of morality and regulatory characteristics. Across cases, I employ structured, focused comparison (George, 2005). By this I mean I employ one case presentation structure for all three cases, focusing the reader's attention on the data of interest and providing for ready comparison between the cases. For each case, I:

- Describe the complexity of the legislation at issue.
- Present the major types of arguments proponents and opponents used.
- Rate the complexity of the legislative debate.
- Comment on the mentions of target populations, if any.
- Comment on the incidence of vector messages, if any.

These case studies are wholly illustrative. They are not intended to "prove," or even substantially demonstrate, how infertility insurance mandates diffused to the 16 states in which they are present. They are intended to demonstrate it is possible to distinguish between policy types, even in tough cases like infertility insurance mandates. They also illustrate the additional information we gain about policy diffusion when we, inspired by the epidemiological model, look more closely at the policy target characteristic and the penetration of vector messaging.

In Chapter 4 I employ diffusion curve analysis. I present comparisons of the empirical diffusion curves for 10 policies with theoretical r-shaped and S-shaped diffusion curves to facilitate quick visual evaluation of whether the particular policy looks more regulatory or morality in its diffusion. I generate the theoretical r- and S-shaped curves using standard equations in the literature.

Previous Work on These Questions

Our understanding of policy diffusion is fragmented. I'm far from the first scholar to note that insights are scattered across the sub-literatures on event history analysis, policy design, and policy typologies. Here are brief previews of literature I will explore in greater detail in later chapters.

Event history analysis

Event history analysis has told us in exhaustive detail what state characteristics lead to policy innovation. But EHA tends to isolate known causal factors instead of integrating them, which is suboptimal because scientific models must include all known causal factors in order to be predictive—and the lack of predictive power in the policy sciences has been a key shortcoming noted by critics. Policy diffusion as it stands lacks a unifying theoretical framework, and a variety of quantitative models are in use.

Policy design

Policy design affects the environment, which in turn affects the vectors. The policy design literature is useful because it reminds us that we can determine why legislators did what they did, and distinguish between seemingly hybrid policies. Infertility insurance mandates are fascinating because they can be supported and opposed on both regulatory and moral grounds. For instance, from the supporter's perspective, they represent necessary regulation of insurance companies, because insurance companies left unregulated will deny cov-

erage for any condition they are not forced to cover. They are also a moral imperative because reproduction is as basic a human need as food and shelter and should be provided for by moral actors. From the opponent's perspective, they are also regulatory; but they should therefore be opposed, because regulation harms the free market's efficiency. The connection with abortion drives the primary moral argument against infertility insurance mandates; selective reduction of embryos, a common step in in-vitro fertilization procedures, is seen as exactly like abortion.

Policy typologies: Morality policy

A substantial research field now works to distinguish morality policies from other types and carries on with the Lowian tradition in using policy characteristics to explain and predict politics (Lowi, 1998; Meier, 1994; Meier, 1999; Mooney & Lee, 1999; Mooney & Schuldt, 2008; Tatalovich & Daynes, 1998), but there are several competing definitions of morality policy. According to Meier (1994), morality policies deal with fundamental principles of right and wrong, are highly salient, and impose low information costs on policy process participants. The result is a politics where many can participate, as the barriers to doing so are low, and groups aim to use government to impose their values on others. Tatalovich and Daynes (1998) focus on the advocacy involvement of single-issue groups and the ultimate decision-making by the federal judiciary in their definition; theirs also shares with Meier's definition an emphasis on values, specifically noneconomic ones. Finally, Lowi (1998) emphasizes the distribution of preferences in his morality policy definition. Morality policies are ones where instead of preferences forming a normal distribution with majority opinion in the middle, the bell curve is inverted, two sets of preferences are found in the tails, and there is no middle ground.

In this dissertation I shed more light on this definitional question in part by way of returning to the old controversy over whether morality policy is actually social regulatory policy. Tatalovich and Daynes (1998) term morality policy as "social regulatory policy," lending credence to the notion the two types are appropriate for combination. Smith and Tatalovich (2003) argue morality policy combines redistributive and regulatory elements.

The answer to my first research question resolves some of the definitional confusion. The morality policy literature does use definitions to somewhat objectively classify which are morality policies and which are not. But the problem (as in a lot of political science, such as the study of ideology) is that there are competing definitions of morality policy. My approach is valuable because it focuses attention on policy characteristics and highlights this definitional quandary. Then my argument for qualitative methods shows how we can gather additional data to distinguish between the definitions and more definitively define policy type.

Policy typologies: Regulatory policy

The theoretical literature on regulatory policy (Wilson, 1980; Noll & Owen, 1983; Reagan, 1987; Wilson, 1980) fits well within an epidemiological framework. The actors, or vectors, in regulatory theory are four: the regulatory agency, the regulated industry, non-industry interests, and political elites. Policy outcomes (the qualities of the virus) are tied to which of these actors is involved, and to what extent. Influencing an actor's involvement is the policy issue's (the virus's) complexity and salience (Gormley, 1986). So what the epidemiological model allows us to see more clearly is the vectors and the virus have a reciprocal relationship, where the virus affects which vectors deliver it, and the vectors in turn change the nature of the virus.

Policy typologies: Hybrid policy

A notion is developing in the literature that hybrid policy types and much looser type definitions may be the answer to understanding the departures from expectations scholars have found while researching seemingly morality or regulatory policy types. The aforementioned study by Roh (2008) asked in a study of abortion funding referenda whether these policies are redistributive policy, morality policy, or both. Studlar (2008) looked with pessimism on his findings regarding tobacco control, writing: "The search for stable and distinctive policy types may be doomed to failure. New information, including scientific information, and competitive group struggle over the recognition and framing of issues, means that the major dimensions of an issue are subject to change over time …" (p. 407). This backs up my point that you can't just declare a policy type, you have to examine the cases.

Siding as I do with Smith's (2002) call for a more scientific approach to policy typing, I find Studlar's pessimism unsatisfying. I rejoin ways with him, however, when he asserts that different types can coexist "with different degrees of explanatory power for politics over time" (2008, p. 407). I think there is still more to learn from policy type, but we will have to delve much deeper into cases than before to find it—as I demonstrate on a modest scale in this dissertation. We should get away from hybrid policy. It's a wishy-washy definition. With more qualitative investigation we could settle on one or the other.

Chapter Outline

Here is the plan of the dissertation.

In Chapter 2 I review and synthesize the literature to show the positive implications of taking policy content seriously. I recast our understanding of fragmented literatures, such as the policy typologies and policy design literatures, and show how they can be integrated

under the epidemiological model, which is important for our discipline's internal and external health. I focus on developing the viruses portion of the model.

In Chapter 3 I explore in depth the legislative debate over infertility insurance mandates in three states. Focusing on policy type as a useful summary of policy content, I show that a policy case seemingly too difficult to type because of its morality and regulatory characteristics could indeed be typed as regulatory by looking at the characteristics to which legislators attended. In so doing I seek to correct a disturbing hybrid policy trend in the literature and provide policy type data for further testing in Chapter 4. I also generate preliminary information, useful for later investigations, on whether positively and negatively constructed target populations get discussed in legislative debate on infertility insurance mandates, and whether legislators attend to vector messages in legislative debate. All these aims revolve around developing the epidemiological model of policy diffusion discussed in Chapter 2.

In Chapter 4 I propose an easy way to compare large sets of policies to find patterns of diffusion speed that allow us to generate hypotheses for testing. It involved comparing empirical diffusion curves to theoretical r-shaped and S-shaped curves, where the r-shaped curve represented the diffusion speed expected of morality policy, and the S-shaped curve represents the diffusion speed expected of regulatory policy. In analyzing the diffusion curves of 10 policies, I find that for a majority of the analyses, diffusion curves did not match expectations based on their policy types.

In Chapter 5 I address additional questions about policy content created by the previous chapters, and provide directions for future research that would treat first-principles conflict and previous success as policy characteristics; develop the vectors portion of the epidemiological model; and bring in outside scholars to aid the policy research endeavor.

Chapter 1 Table

Table 1: Model Usefulness Rated by Variables Included

	Useful	**More Useful**	**Most Useful**
	Most policy diffusion models	A very few policy diffusion models	Epidemiological model
Virus (policy)	✖	✖ / ✔	✔
State (host)	✔	✔	✔
Vectors (policy entrepreneurs)	✖	✖ / ✔	✔
Environment	✖	✖ / ✔	✔

Chapter 2

Policy Characteristics Matter

> Ignoring the question of policy content, as most state policy diffusion research has done, fails to address an important aspect of variation across space and time that has both theoretical and practical implications.
>
> Karch, 2007

> [S]cholars have found sparks of insights about the conditional nature of policy diffusion but have yet to illuminate a systematic path forward. … As the scholarship on policy diffusion moves forward, it would be valuable to have a more systematic grounding in theory in order to structure the empirical work around broad and hopefully general claims.
>
> Graham, Shipan, Volden, 2008

> The factors that are likely to motivate state officials to adopt a new policy depend on the policy.
>
> Miller, 2004

> "... diffusion is not merely an increase of usage or incidence of a policy or form, but rather the result of a dynamic decisionmaking process. Therefore, we must look beneath the aggregate-level data so often used in such research to understand the individual-level decisionmaking that drives state policy diffusion. ... [D]ecisionmakers are not likely to be influenced equally by every existing policy. For a variety of reasons, officials are apt to draw lessons from some models more than others.
>
> Karch, 2007, p. 56

In this chapter I review and synthesize the literature to show the positive implications of taking policy content seriously. The chapter recasts our understanding of fragmented literatures and shows how they can be integrated under the epidemiological model, which is important for our discipline's internal and external health. I focus on developing the viruses portion of the model, and in the course of this reconceive existing policy models, review the relevant policy diffusion literature, and explain and justify the epidemiological model.

This chapter answers the first of my research questions, "What do we learn when we take policy characteristics seriously and place them within a model that unifies the diffusion literature and study a policy case that combines two major types the literature has treated separately, morality and regulatory?" It makes the following points:

The epidemiological model focuses attention on policy characteristics.

Policy characteristics must be taken seriously.

Most policy diffusion research ignores policy characteristics.

Policy characteristics are isolated in the typology and design literatures.

Like Kingdon's informants, I start with a solution and then present the problem. The solution is the epidemiological model; the problem is a lack of attention to policy characteristics in the policy diffusion model. Doing things in this order allows me to critique the existing literature in epidemiological terms, making this chapter shorter and clearer.

Epidemiological Model Focuses Attention on Policy Characteristics

The framework I employ (Boushey, 2010) conceives of policy innovations as viruses that "infect" states based on the virulence of the virus itself (the policy), the effectiveness of the vectors (policy advocates), and the varying resistance of the hosts (individual states). In other words, it takes the standard policy diffusion research question, "Why did some states adopt a certain policy, and others did not," and divides it into four questions:

1. What is it about the policy itself that made it more appealing to some states and less appealing to others? So we examine the policy and call it a virus. The virulence of the policy virus—that is, the strength of its tendency to "infect" states with its adoption—varies by its characteristics, especially its complexity and salience.

2. What is it about the advocates of the policy that made them more successful in some states than in others? So we examine the interest groups and policy entrepreneurs and call them vectors. Some vectors, such as those with greater organizational and financial resources, can carry policies better than others.

3. What is it about the states themselves that made some of them more receptive to the policy than others? So we study states and call them hosts. Examining the state hosts has been the focus of most policy diffusion research, which has examined factors such as state legislative professionalism and citizen ideology.

4. What factors in the overall environment influence the preceding three factors and their interactions? So we study what the traditional policy diffusion literature has termed the state's environment and rename it the natural environment. The obvious environmental factor affecting policy innovation in one state is the presence of that innovation in another geographically proximate state—that is, in the potentially adopting state's immediate environment.

Figures 2.1 and 2.2 illustrate the differences between policy diffusion studied with the traditional model and the epidemiological model.

(Figures 2.1 and 2.2 about here.)

Epidemiology and policy diffusion are quite similar. Epidemiology seeks to determine where diseases are in a biological population and how they got there (Last, 2001); policy diffusion studies seek to determine where policies are in a population of states and how they got there.

Of the four questions the epidemiological approach poses, the one most neglected in the policy diffusion literature is the one about policy characteristics (Karch, 2007; Miller, 2004; Graham, Shipan, & Volden, 2008). This matters at a basic theoretical level because

individual-level bounded rationality theory underlies policy diffusion research; that is, that reelection-minded and time- and resource-starved legislators look for shortcuts in making laws, and the main shortcut is emulating other states that have already adopted a particular innovation. Yet policy diffusion researchers focus attention mostly on aggregate-level (state) variables too far removed from the policymakers themselves. By contrast, this dissertation focuses on the policymakers' decision making and looks at what the policymakers themselves say they think about the policy.

Unit of analysis and methodological individualism

Here then is one of the epidemiological model's chief virtues; it fosters an individual level of analysis, avoiding the cross-level inference problems[3] of standard policy diffusion research practice. Karch calls for this approach (2007, p. 56):

> [D]iffusion is not merely an increase of usage or incidence of a policy or form, but rather the result of a dynamic decisionmaking process. Therefore, we must look beneath the aggregate-level data so often used in such research to understand the individual-level decisionmaking that drives state policy diffusion. ... [D]ecisionmakers are not likely to be influenced equally by every existing policy. For a variety of reasons, officials are apt to draw lessons from some models more than others.

To be clear, I will be looking in Chapter 3 at the influence policy characteristics have on legislative debate.

The "founding father" of policy diffusion called for methodological individualism long ago. Walker (1969, p. 887) said researchers should "go beyond the search for demographic correlates of innovation and develop generalizations which refer to the behavior of the [individuals] who actually make the choices in which we are interested." It is a primary goal of this dissertation to do exactly that.

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[3] Testing a theory based on an individual level of analysis at a group level of analysis (Achen & Shively, 1995).

Where all the variables fit

Where do typical policy diffusion variables fit in the epidemiological model? Typical diffusion variables are these (Miller, 2004):

Political: Party control, interparty competition, interest group strength, gubernatorial power, legislative professionalism, administrative capacity, public and elite opinion.

Socioeconomic: Population size and composition, urbanization, natural resources, state personal income, state economic activities, regional economic forces, state fiscal capacity, political culture.

Table 2.1 shows where these variables fit:

(Table 2.1 about here.)

Here are several things to notice about Table 2.1:

There's nothing in the virus column, because typical diffusion research has no information about the virus. This is a huge problem because vectors tend to modify the virus to suit the local conditions. It is this obvious gap in the existing literature at which I aim this dissertation.

The existing literature has most of the state characteristics correctly classified. The only thing that doesn't go from the existing literature's socioeconomic category to the epidemiological model's host category is regional economic forces, which goes to environment.

The existing literature's political variables all go to the epidemiological model's vector category. This is important because typical diffusion research's unit of analysis causes confusion. Since the unit of analysis is states, not people, characteristics of those people get confused as state characteristics. But they're not state characteristics, they're people characteristics. As Baumgartner and Jones's attention literature (1993; 2005) has shown us, it's about the people. Indeed, as methodological individualism's victories within political science

continue to show us, it's about the people. While this dissertation's prime focus is not the people, the people (legislators, lobbyists, etc.) are always in view because they are the ones who attend to and attempt to manipulate policy characteristics.

Policy Characteristics Must Be Taken Seriously

We should be focusing on policy characteristics because they are the ones to which individual policymakers pay attention. Policy characteristics can elevate issue salience and contribute to a sense of urgency, which in turn motivates a more classically rational, comprehensive search for policy alternatives; or policy characteristics can depress issue salience and contribute to a tendency to satisfice, that is, adopt the first "good enough" policy alternative found in a limited search. This is in line with Frank Baumgartner and Bryan Jones' theoretical work in policy diffusion (1993; 2005); they demonstrate that changes in government attention to problems can lead to sudden "punctuations" in otherwise fairly static, incremental state policymaking.

Scholarship in public policy led by Baumgartner and Jones and their students has shown the theory of incrementalism is just wrong. Studies have achieved this by looking at policymakers' attention. (Which, interestingly, is not the state characteristics the EHA literature concerns itself with.) We need to look at attention, which means we need to focus on the policy characteristics legislators were attending to, and the characteristics vectors are promoting.

The scholar who brought the epidemiological model to political science, Graeme Boushey, argued that the model provides a way to unite existing policy diffusion theories in explaining both sudden and rapid policy diffusion, as well as the more incremental policy development expected in an American federal system that acts to slow down change.

Boushey (2010) argued current diffusion models can't distinguish between the rapid adoption of Amber Alert legislation and the slow and steady adoption of state lotteries.

Studying policy diffusion epidemiologically reveals portions of existing policy models that should be re-conceived. The model neatly wraps up the politics vs. economics debate by saying both are important environmental characteristics. In their seminal article exploring the predictors of state welfare policies, Dawson and Robinson (1963) classified as "environmental" variables those outside the political system, such as economic variables. In my usage, environmental refers to those political *and* economic conditions outside of a particular state—for example, neighboring states' ideologies, or the national economy. In other words, while Dawson and Robinson considered "the environment" to be those things outside the political system of the state under consideration, I consider "the environment" to be all those things—political *and* economic—external to the state under consideration.

There is another example of a need to recast our understanding of environment in light of the epidemiological model. In 1991, Meier wrote, "Regulatory issues take place in an *environment* that varies in both complexity and salience. This *environmental* variance systematically advantages and disadvantages each of the political actors depending on how salient or how complex the policy issue under consideration is" (p. 700, emphasis added). But complexity and salience are not environmental characteristics at all; they are policy characteristics. The existing morality policy literature shows this; it has established that morality policy debates tend to feature high salience, low information costs, and low barriers to participation (both of the latter being measures of complexity).

While I focus my attention on policy characteristics, it is necessary to note policy advocates as well. They matter because advocates in State 1 may bring to bear more and better lobbying resources than State 2, increasing the likelihood of a policy innovation's adoption in

State 1 vs. State 2 even if policy characteristics and state characteristics are quite similar. What the epidemiological model allows us to see more clearly is that the vectors and the virus have a reciprocal relationship, where the virus affects which vectors deliver it, and the vectors in turn change the nature of the virus. This is a key difference between epidemiological theory applied to biological systems and to policy systems: in biological systems, the virus can change itself in response to environment, without influence of a vector. In policy systems, the virus can't change itself; a vector must always act on it.

We need the epidemiological model because it devotes one-fourth of itself to vectors, or policy entrepreneurs, the lack of attention to which has been a consistent criticism in the policy literature (Savage, 1985; Mintrom, 2000). In the epidemiological model, of course, the interest groups, or vectors, are always in view. This further illustrates the epidemiological model's superiority over others that take a less comprehensive approach to diffusion predictors.

There are more advantages to the epidemiological model that don't rest as much on policy characteristics, which I cover in Chapter 5. The epidemiological model links together fragmented literatures and gives everyone, including outside scholars, a common language for contributing to diffusion research. This integration satisfies a desire in the literature (Graham, Shipan, & Volden, 2008, pp. 31, 34):

> Having been convinced that policy choices across governments are interrelated, scholars have found sparks of insights about the conditional nature of policy diffusion but have yet to illuminate a systematic path forward. We know, for example, that not all policymakers pay heed equally to the policies of one another. We know that not all polices spread in the same manner. And we know that not all mechanisms are at work in the spread of all policies. … As the scholarship on policy diffusion moves forward, it would be valuable to have a more systematic grounding in theory in order to structure the empirical work around broad and hopefully general claims.

I said earlier I would be focusing on policy characteristics because they are the most neglected in the policy diffusion literature. We care about policy characteristics because of Lowi's original policy typology (1972), which posited that policy causes politics, rather than the other way around. That is, we can make predictions about the types of politics that will occur based on characteristics of the policy, because policy designs create effects on political actors, which in turn mobilizes them to minimize or maximize those effects. In other words, when we know a lot about the characteristics of different types of policies, we can predict how they will fare in legislative debate.[4] Ultimately, different policy types will diffuse differently, and differential diffusion is what the diffusion literature concerns itself with.

The notion that different types of policies diffuse differently gains support from a study Grogan (1994) conducted of three dimensions of state Medicaid policies. She wrote (p. 614, emphasis added):

> In other words, the practice of observing global state determinants, such as state political structure and state economic resources, for all state policies, obscures the reality that the factors affecting policy decisions will vary according to the specific policies confronted. Thus ... the factors influencing policies such as education or transportation will be different from the factors affecting state Medicaid policy because the constituency boundary and interest group strength vary among policies. Clearly, the state political process depends on the policy under consideration.

Existing research practice, with its state-level unit of analysis, doesn't leave room for the proposition that policy characteristics matter because they change the actions of the vectors. Miller (2004, p. 42) criticizes this state-level analysis: "That states consist of multiple decisions (sic) makers is rarely taken into account because most researchers portray them as unitary actors, with a single, abstract decision maker."

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[4] Facilitating a priori predictions leads to better policy science, as I will cover in Chapter 5.

Karch also notes the problem in a recent literature review (2007, p. 55): "Even public policies on the same topic can assume a range of forms in the different states that enact them. Recognizing this fact emphasizes the importance of policy content, a critical issue that has received relatively limited scholarly attention." Karch devotes an entire section of his paper to policy content, noting that it can be "an independent variable affecting the diffusion process, such as when it influences which constituencies and organizations become involved in specific policy debates," and can also be "a dependent variable, such as when the type of policy adopted is shaped by the diffusion process" (p. 55). (My policy characteristics are synonymous with Karch's policy content.)

In reviewing the diffusion literature Karch (2007) summarizes it with three concepts, arguing diffusion scholars have ultimately studied imitation, emulation, competition, or some combination of the three.[5] We can easily see where attention to policy characteristics matters in these frameworks. On emulation, the idea is that lawmakers want to copy the success of a policy in their own area; they have a "substantive policy objective" (Karch, 2007, p. 60) in mind:

> Rather than being driven only by ideological, demographic, or economic similarities, emulation also is driven by the perceived success of a policy. In such an emulation process, later adopters attempt to equal or surpass the positive achievements of early adopters.

So policy characteristics matter theoretically, as we see here: "[E]mulation might also be more likely to occur for certain types of policy" (Karch, 2007, p. 64). What exactly are policymakers emulating? There's something about the policy; what is it? That's what this dissertation explores.

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[5] Other studies on the role of imitation, emulation, and competition are Berry and Baybeck, 2005; Boehmke & Witmer, 2004; Grossback, Nicholson-Crotty & Peterson, 2004; and Volden, 2006.

One of Karch's predictions within his framework employs the complexity/salience matrix of policy characteristics used to distinguish between morality and regulatory policy types, further pointing to the need for careful policy characteristic study (2007, p. 64):

> Given the inherent difficulty of evaluating public policies and the divergent criteria that citizens and politicians use to do so, emulation might not be an especially common occurrence when controversy and competing values are involved. In fact, emulation might be most likely to occur in relatively non-political settings. The diffusion of administrative reforms that do not receive much citizen attention might be especially likely to be driven by professional networks and estimates of the policy's success.

In summary: Since morality policy is highly salient and involves controversy and competing values, we would expect it to diffuse not through emulation, but through imitation. That means it should diffuse faster. Since regulatory policy is not highly salient but is complex, we would expect it to diffuse through emulation—a slow process involving taking a policy idea and adapting it to the emulating state's unique needs. But to determine what happened, we need to closely study the policy characteristics.[6]

Several scholars have, along with me, identified the importance of a better theoretical framework and attention to policy characteristics, while noting the existing literature's lack of both. For instance, Graham, Shipan and Volden identified the need for better theory in a review of the diffusion literature (2008, pp. 31, 34):

> [S]cholars have found sparks of insights about the conditional nature of policy diffusion but have yet to illuminate a systematic path forward. … As the scholarship on policy diffusion moves forward, it would be valuable to have a more systematic grounding in theory in order to structure the empirical work around broad and hopefully general claims.

Karch points out the problem with lack of attention to policy characteristics (2007, p. 69):

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[6] For brevity's sake I do not fully explore Karch's imitation and competition predictions. But on imitation, it's worth noting briefly that his prediction includes a role for policy typologies, which are of course summaries of policy characteristics: "[T]he diffusion of program whose impact is symbolic rather than economic—including morality policies such as abortion regulations and bans on homosexual marriage—may be more likely to be driven by imitation than by competition." p. 64

> Most state policy diffusion research assesses the correlates of the adoption of a policy without assessing how it may have been altered as it diffused from state to state. Policymakers might adjust the measure based on earlier adopters' experiences and the unique circumstances of that state. How later adopters modify an innovation is a fundamentally important aspect of diffusion since it suggests whether the process is being driven emulation, imitation, competition, or another factor …. Ignoring the question of policy content, as most state policy diffusion research has done, fails to address an important aspect of variation across space and time that has both theoretical and practical implications.

Karch explicitly calls for my research agenda: "The second path along which future research should proceed is to treat policy content as an independent variable, examining how it could affect policy diffusion" (p. 71).

Most Policy Diffusion Research Ignores Policy Characteristics

Past efforts to take policy characteristics seriously have been few and far between. Smith (2002) proposed that scholars use more objective methods to classify policy types; he employed independent raters to identify morality and non-morality policies. In a few event history analysis-based papers, scholars have gone beyond regressing the typical predictor variables on the typical adopt/did not adopt dichotomous outcome variable. They have gone a step farther to estimate content equations, where they regress the same predictor variables on an ordinal outcome variable they have coded in content analyses of policies from the states that adopted. For instance, Lamothe (2005) coded workplace drug testing legislation along a scale from very pro-business to very pro-labor and found that different variables predicted policy adoption and policy content. Lamothe (2005, p. 25) makes a fine point that backs up my argument: "Previous studies examine policy as if the decision to act and the content of that action are unique events, but they should be considered together." Another paper employing a content equation is interesting because it finds that in the case of two types of insurance mandates, interest groups had an effect on the type of mandate adopted, but not on whether a mandate was adopted.

All this talk of policy *content* may be confusing the reader because there is a subset of diffusion research called policy content studies, which generally aim at explaining policy outputs—usually state spending on some program, such as welfare—with independent variables from two broad classes. The general theory is one of a feedback system where external conditions affect a state's political system, which produces policy outputs that then turn back around and influence the external conditions and the political system (Blomquist, 1999). To clarify: These policy outputs aren't really policy characteristics; they are the *results* of policy characteristics. So policy content studies are misnamed; they should be termed policy output studies.

Policy Characteristics Are Isolated in Typology, Design Literatures

Policy characteristics matter, but insights about them are isolated in the policy typology and policy design literatures, not in the policy diffusion literature. In this section I use the epidemiological model as a lens for examining the literature on morality and regulatory policy, and I note the troubling trend toward hybrid policy classifications. I go on to show how policy design theory, neglected in the methods-driven and quantitative EHA literature, offers a policy characteristic well-suited for analysis in an epidemiological framework: target populations.

Policy Typologies

Policy type matters in no small part because it usefully summarizes a range of policy characteristics that have been neglected in the diffusion literature. Most diffusion studies have focused on state (host) characteristics, such as general policy innovativeness, a state's sociodemographic characteristics, its political process factors, and its political culture. Some recent exceptions to this neglect, and fellow travelers in my effort to emphasize policy type,

are Studlar (2008), who asks whether tobacco control policy constitutes public health, political economy, or morality policy; Wald (2001), who asks whether morality policy or just the long-established political-economic determinants are at work in the diffusion of school-based health centers; and Roh (2008), who asks in a study of abortion funding referenda whether these policies are redistributive policy, morality policy, or both.

Morality Policy

Morality policy matters because moral fervor is necessary to get action against entrenched interests (Baumgartner & Jones, 1993). States with large numbers of religious fundamentalists in their populations are less likely to adopt policies fundamentalists find immoral, such as those increasing the availability of abortion (Mooney, 1995) and those creating state lotteries (Berry & Berry, 1990). Advocates can demoralize a policy—that is, change its characteristics—to change its success (Mooney & Lee, 1999).[7] Examples include Haider-Markel (1996) and Jacob (1998). This moralization or demoralization of a policy matters for the policy case in Chapter 3, infertility insurance mandates, because the Reagan deregulatory era corresponds with the early development of assisted reproductive technology and the infertility insurance laws that fund patients' use of this expensive technology.

A substantial research field now works to distinguish morality policies from other types and carries on with the Lowian tradition in using policy characteristics to explain and predict politics (Lowi, 1998; Meier, 1994; Meier, 1999; Mooney & Lee, 1999; Mooney & Schuldt, 2008; Tatalovich & Daynes, 1998), but there are several competing definitions of morality policy. According to Meier (1994), morality policies deal with fundamental principles of right and wrong, are highly salient, and impose low information costs on policy process participants. The result is a politics where many can participate, as the barriers to doing

[7] As they did in my Chapter 3 cases by including a religious-employer exemption from the infertility insurance mandate.

so are low, and groups aim to use government to impose their values on others. Tatalovich and Daynes (1998) focus on the advocacy involvement of single-issue groups and the ultimate decision-making by the federal judiciary in their definition; theirs also shares with Meier's definition an emphasis on values, specifically noneconomic ones. Finally, Lowi (1998) emphasizes the distribution of preferences in his morality policy definition. Morality policies are ones where instead of preferences forming a normal distribution with majority opinion in the middle, the bell curve is inverted, two sets of preferences are found in the tails, and there is no middle ground.

The morality policy literature does use definitions to somewhat objectively classify which are morality policies and which are not. But the problem (as in a lot of political science, such as the study of ideology) is that there are competing definitions of morality policy. My approach is valuable because it focuses attention on policy characteristics and highlights this definitional quandary.

Regulatory Policy

The theoretical literature on regulatory policy (Wilson, 1980; Noll & Owen, 1983; Reagan, 1987) fits well within an epidemiological framework. The actors, or vectors, in regulatory theory are four: the regulatory agency, the regulated industry, non-industry interests, and political elites. Policy outcomes (the qualities of the virus) are tied to which of these actors (vectors) is involved, and to what extent. Influencing an actor's involvement is the policy issue's (the virus's) complexity and salience (Gormley, 1986).

The interplay between complexity and salience creates a matrix of four sets of expectations for who will participate in regulatory policy decision making (Meier, 1991). One of these sets is characterized by low complexity and high salience and involves the regulated industry, regulatory agency, non-industry interests, and political elites. Gormley (1986) calls

this "hearing room politics." Several of Gormley's assertions regarding hearing room politics seem to fit the infertility insurance mandates case in Chapter 3 quite well. Regarding the nature of political debate in hearing room politics, he writes, "This arena is ripe for demagoguery, and in fact one sees an amazing amount of mudslinging, vilification and hyperbole in this issue area" (p. 617). Regarding the details of the legislation that emerges, he writes, "Lowi's criticism of legislative bodies—that they adopt vague, ambiguous statutes—does not fit this issue area. Rather, one sees highly specific statutes ..." (p. 617). Indeed; infertility insurance mandate legislation goes so far as to specify how many cycles of IVF a woman can have, and under what specific conditions. Such details are not left to the administrative agency rule making process—which is important when you're considering ease of lobbying. Finally, regarding the nature of citizen involvement, he writes, "Hearing room politics is more democratic, but upper-class citizens consistently fare better than other citizens" (p. 618). Here, the parallel is simple; is it affluent white people who are most likely to seek fertility treatment, and thus to lobby for insurance coverage of it.

In Gormley's (1986) complexity and salience matrix of issues for regulation, morality issues such as abortion, sale of pornography, and nude dancing are in the low complexity, high salience quadrant. The closest match in his matrix to infertility mandates is insurance regulation, which he rates as high complexity and low salience. So there are conflicting expectations in the literature this dissertation can help resolve—with the qualitative research I employ in Chapter 3, and in Chapter 5 recommend the more extensive use of in policy research.

Hybrid Policies?

A troubling notion is developing in the literature that hybrid policy types and much looser type definitions may be the answer to understanding the departures from expectations

scholars have found while researching seemingly morality or regulatory policy types. The aforementioned study by Roh (2008) asked in a study of abortion funding referenda whether these policies are redistributive policy, morality policy, or both. Studlar (2008) looked with pessimism on his findings regarding tobacco control, writing: "The search for stable and distinctive policy types may be doomed to failure. New information, including scientific information, and competitive group struggle over the recognition and framing of issues, means that the major dimensions of an issue are subject to change over time …" (p. 407). This backs up my point that you can't just declare a policy type, you have to examine the cases. The upcoming Chapter 3 looks in depth at the "group struggle over the recognition and framing of issues" in the case of infertility insurance mandates.

Siding as I do with Smith's (2002) call for a more scientific approach to policy typing, I find Studlar's pessimism unsatisfying. I rejoin ways with him, however, when he asserts that different types can coexist "with different degrees of explanatory power for politics over time" (2008, p. 407). I think there is still more to learn from policy type, but we will have to delve much deeper into cases than before to find it—as I demonstrate on a modest scale in Chapter 3 and provide viable research models for in Chapter 5.

Policy Design

Two areas that can stand to be unified are the quantitative EHA diffusion literature and the qualitative policy design literature. When you reframe the entire diffusion research enterprise into the epidemiological model, you see that things such as the policy design literature fit into the whole framework. Professionalized scientific policymaking occurs when a policy does not have visible and vocal target populations that carry negative or positive social constructions (Ingram, Schneider & DeLeon, 2007). Target population also matters because

lawmakers generally are eager to impose burdens on negatively socially constructed groups, and eager to grant benefits to positively constructed groups (Schneider & Ingram, 1993).

Policy design affects the environment, which in turn affects the vectors. According to policy design theory, receiving positive messages and resources from public policy yields increased political activity on the part of the receiving group, such as senior citizens wanting to preserve Social Security (Campbell, 2003). So the senior citizens receive the messages and resources as a result of the virus; they in turn form a natural environment of influence on the vectors; and those vectors then act on the virus.

Policy design theory has policy characteristics interacting with target populations. Are they the host or the natural environment? In a sense policy entrepreneurs are genetically engineering the policy to have certain effects on a target population. Is this taking the analogy too far afield? You could go too far down this road, perhaps, but it gives scholars from other fields a point of entry. Biologists, for instance, are going to readily understand epidemiology. As well, think what insights we could gain from public health epidemiologists, who already know a bit about and have to work with policy. I will have more on the need for and implications of involving outside scholars in our policy research work in Chapter 5.

I argue Savage's (1985) issue fragility concept should be rolled into our understanding of target populations. He defines issue fragility as "the degree of perceived political opposition to innovation" (p. 65). This backs up my argument that target population is an important policy characteristic because, "Issues with low fragility engender little formal opposition to policy adoptions. Highly controversial issues encourage the mobilization of strong policy opposition" (p. 66).

Conclusion

In this chapter I asked, "What do we learn when we take policy characteristics seriously and place them within a model that unifies the diffusion literature and study a policy case that combines two major types the literature has treated separately, morality and regulatory?" I used an epidemiological model as a lens for a review and synthesis of the literature that showed the positive implications of taking policy characteristics seriously, and highlighted the epidemiological model's utility for focusing attention on policy characteristics. I showed how most policy diffusion research ignores policy characteristics, and that insights about these characteristics are isolated in the typology and design literatures. I suggested how these characteristics could be examined profitably in case-study and diffusion speed research—which I will now go on to do in Chapter 3 and Chapter 4.

Chapter 2 Figures

Figure 2.1: Traditional Diffusion Model

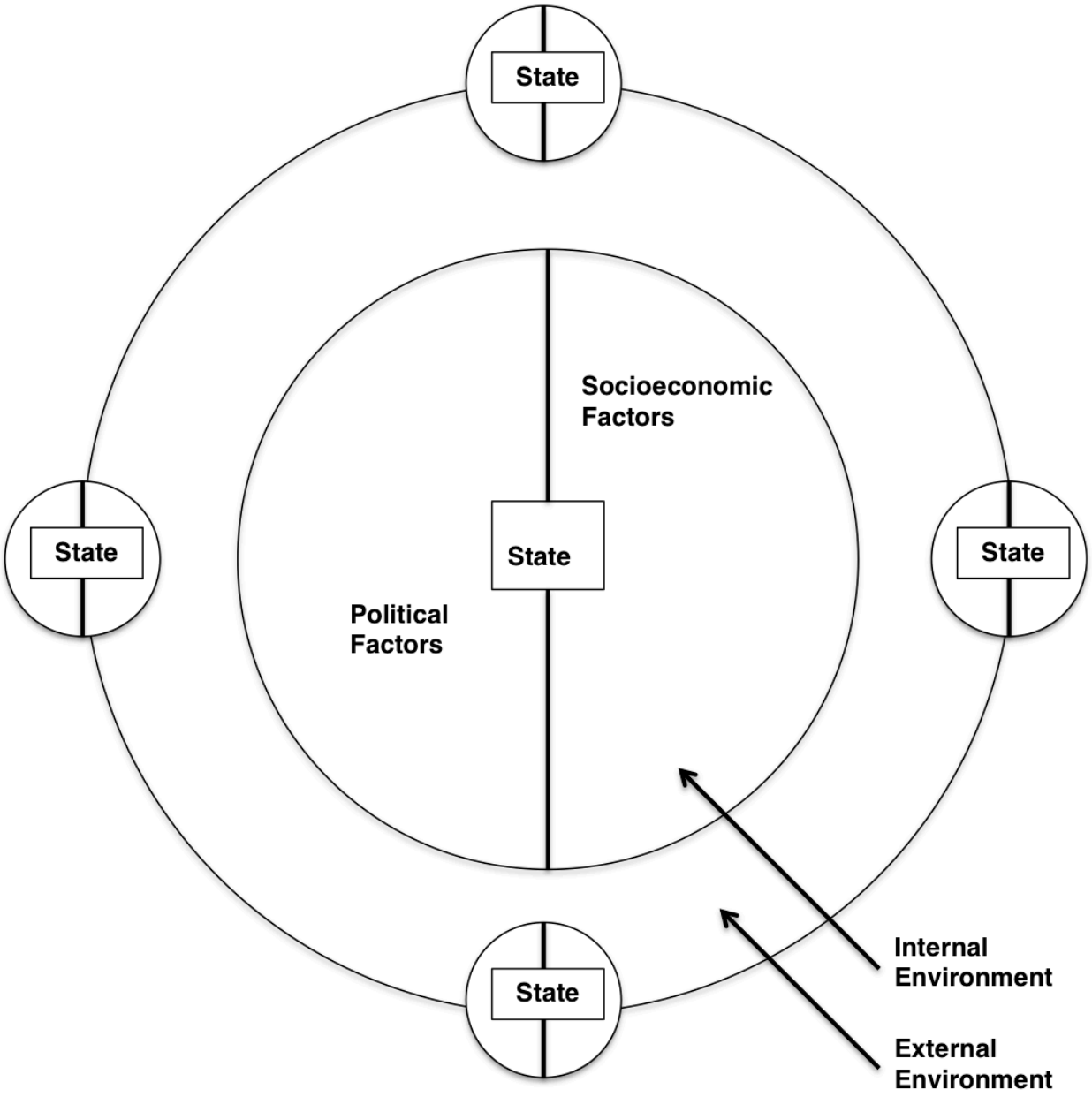
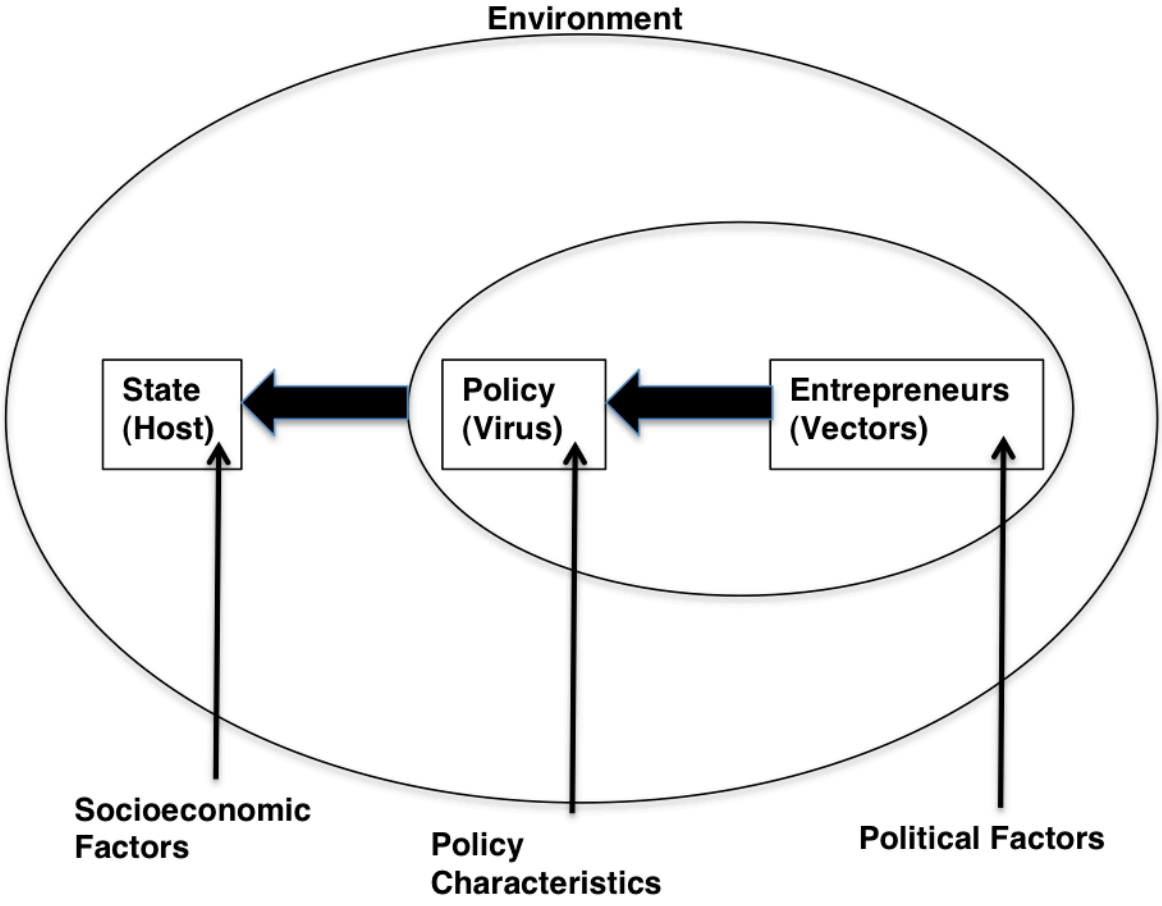


Figure 2.2: Epidemiological Diffusion Model



Chapter 2 Table

Table 2.1: Where Typical Diffusion Variables Go in the Epidemiological Model

Host	Virus	Vector	Environment
Population size and composition	This space intentionally left blank.	Party control	Regional economic forces
Urbanization		Interparty competition	
Natural resources		Interest group strength	
State personal income		Gubernatorial power	
State economic activities		Legislative professionalism	
State fiscal capacity		Administrative capacity	
Political culture		Public and elite opinion	

Chapter 3

Hopelessly Hybrid? Truly Targeted? Verily Vectored? The Case of Infertility Insurance Mandates

This exploratory chapter has four aims: One, to explore what seems to be a disturbing hybrid policy trend in the literature and, in so doing, two, provide policy type data for further testing in Chapter 4; three, to explore whether positively and negatively constructed target populations get discussed in legislative debate on infertility insurance mandates; and four, to explore whether legislators attend to vector messages in legislative debate. All the aims revolve around developing the epidemiological model of policy diffusion discussed in Chapter 2.

I focus on legislative debate because Baumgartner and Jones (1993; 2005) argue convincingly that legislators' attention is the key explanatory variable in which innovations get on the agenda for a chance at adoption, and then make it through the legislative process once there.

The epidemiological model motivates us to ask what it is state legislators are attending to, and therein we find the answer: policy characteristics. The epidemiological model, in fact, leads us to see state legislators as the host organisms policy viruses infect, by way of interest group vectors—which vectors, as we shall see, play up certain policy characteristics in the hopes of gaining state legislators' attention.[8]

[8] Readers could justifiably wonder about a level of analysis issue here—does the epidemiological model really lend itself to analyzing dozens, perhaps hundreds, of individual state legislators as individual hosts, or is it better to call the 50 state legislatures hosts? I leave this issue for future scholarly argument; for expository purposes this early in the development of the epidemiological model within political science, I think it's good enough to get across the point that the host's attention is what matters, and that policy characteristics are the primary attention-grabbers, and that interest-group vectors can act on the host's attention to these policy characteristics.

Hopelessly hybrid? A tough classification case

Are infertility insurance mandates hopelessly hybrid? They represent an interesting confluence of regulatory and morality policy. On the one hand infertility insurance mandates are classically regulatory, in that the government is telling private businesses how to behave. On the other hand they have moral elements, in that some religious groups have abortion-related moral objections to medical treatments for infertility such as in-vitro fertilization.

Gormley classed abortion policy as high in salience and low in complexity, and insurance reform as low in salience and high in complexity. Infertility insurance mandates have the abortion and insurance elements, so where do we stick them? It seems so hard to figure out with a simple look how to type infertility insurance mandates. They involve first principles (in this case about the humanity, or lack thereof, of blastocysts, embryos, and fetuses), just like with other morality issues; yet their focus is on regulating insurance companies.

A disturbing recent trend in policy study is authors who throw up their hands at challenges like these and say, "well, it must be a hybrid policy." For instance, Roh and Berry (2008) ask whether state abortion funding referenda are morality or redistributive policy, and they answer, essentially, "both," claiming (p. 81):

> … [F]uture policy research should consider that policy typologies may not need to contain mutually exclusive categories if we can show that policies framed as multiple policies are better explained through multivariate models with variables from several types of policies.

Studlar goes even further in his study asking whether tobacco control policy is public health, political economy, or morality policy. Rating it a "blended" issue, he concludes (2008, p. 407): "The search for stable and distinctive policy types may be doomed to failure."

Siding as I do with Smith's (2002) call for a more scientific approach to policy typing, I find Studlar's pessimism unsatisfying. Concerned as I am in this dissertation with leading the policy sciences in a more scientific direction, I aim in this chapter to nip what I call the

hybrid policy trend in the bud. I argue policy classification is not hopeless; it's just hard work. The case of interest in this chapter, infertility insurance mandates, would cause some people to throw up their hands and say we can't classify. But we must, because as I argued in Chapter 2 and will demonstrate in Chapter 4, policy type is a useful summary of policy characteristics. In Chapter 4, because we can make a priori predictions about diffusion speed, and prediction is a chief goal of science.

The point of my dwelling on all the prima facie qualities of infertility insurance mandates is to demonstrate that when at first you try to classify troublesome policies like them, you can go around and around in circles and just give up—where giving up means classifying it as hybrid. This is unacceptable as we try to move the policy sciences toward better science, so there must be a better way. The better way is to dig into the cases to reach firm conclusions.

This chapter's first aim, then, is to classify a seemingly hybrid policy, infertility insurance mandates, by looking at whether policy makers debate infertility insurance mandates in primarily morality policy or regulatory policy terms. I analyze supporting and opposing arguments given for and against infertility insurance mandates in legislative debate transcripts from Illinois, Nebraska and Connecticut.

Infertility insurance mandates are difficult to rate on the classic salience and complexity measures scholars have used to differentiate between morality and regulatory policy. They certainly seem not salient in regard to the number of people they would affect. First, there are not too many infertile people, and mandates only affect people working for (typically smaller) forms that don't self-insure. (This is because of the federal ERISA law.) Yet as I cover later, they implicate a debate scholars generally agree is highly salient—the abortion debate.

On complexity, infertility insurance mandates are complex in the sense they place in the statute books some highly technical terms like zygote intrafallopian transfer; but the record of their adoption in the various states does not show that legislators found the matter so complex they delegated the specifics to rulemakers in the bureaucracy. I am thinking here of Gerber and Teske's (2000, p. 852) expectation for regulatory policy: "While regulatory policy is unique partly for its constraints on private behavior, it is often highly technical, requiring significant bureaucratic expertise, yielding a concomitant delegation of substantial policy-making authority to bureaucrats." But there is no evidence in the record of infertility insurance mandate policy making being delegated to bureaucrats. Instead, legislation is highly specific, especially in Connecticut.

One way to attempt to reach some conclusion is to look at the work of scholars who have independently typed morality and regulatory policies—and especially health care policy. Smith (2002) used a survey and cluster analysis to type 11 policies (see Table 3.1), while Boushey (2010) employed three coders to type 62 policies (see the 22 morality in Table 3.2 and 40 regulatory in Table 3.3).

(Tables 3.1, 3.2, 3.3 about here.)

Looking at Smith's results, we find "guaranteed access to health care" has a bare majority in the morality column. But we find the opposite in Boushey's results; his three coders agreed perfectly in coding all four of these policies as not morality, but regulatory:

- Guaranteed Renewal Health Insurance
- Portability- Health Insurance
- Guaranteed Issue, Health Insurance
- Preexisting Condition Limits—Health care

Thinking about the last item in the above list, we are reminded that infertility is clearly a preexisting condition. But again we come around to abortion, because treating this

preexisting condition with the most salient of the infertility treatment options—in-vitro fertilization—frequently creates excess embryos, which are discarded or used for medical research.

Both Smith and Boushey rate abortion policy as morality policy, as every other researcher does. But even in abortion policy, where it falls short of outright bans, there are regulatory elements. Consider fetal pain legislation. It does introduce complexity and a role for experts into the debate, but proponents and opponents still are arguing on first principles. The real desire is to ban or support abortion, not to engage on the technical issue. Similarly, as we shall see when looking in detail at the case of infertility insurance mandates, the real desire seems to be to support or oppose mandates, not engage on the morality issues.

What if we were to consider infertility insurance mandates a subset of health-care policy? We would find Leichter (1997, p. 903) arguing health care is partly morality policy because Americans have a somewhat moral "sense of what constitutes an adequate or basic level of care." Thinking then of infertility insurance mandates as health care policy with a moral com, we would also find the expectation for incremental changes that are not salient to the public. As Oliver (1997, p. 676, emphasis added) puts it:

> In a system where insurance coverage is voluntary, changes to increase access for one group (individuals with *costly medical conditions* or other high-risk characteristics) tend to increase costs and thereby decrease access for another segment of the population …. In addition, because these incremental reforms will not attract sustained attention and support from the general public, it is politically difficult to alter existing practices and impose substantial new regulation on a powerful industry.

So the literature contains contradictory guidance for those trying to type infertility insurance mandates. They seem simultaneously low and high in salience, and low to moderate in complexity. That gives us no help in giving them types consistent with the literature, which rates low salience, high complexity policies regulatory and high salience, low complex-

ity policies morality. We don't receive conclusive help either from the scholars who have independently typed somewhat similar policies. The health care aspect of infertility insurance mandates is (very slightly) morality in Smith's estimation, and firmly regulatory in Boushey's estimation. The abortion aspect is firmly morality in both scholars' estimation.

Truly targeted? Mandate benefits and burdens

My third aim is to explore whether policies truly are targeted at positively and negatively constructed populations. The scholar who brought the epidemiological model to policy study left this as an unexplored assumption, so I explore it. Boushey (2010, p. 183) writes:

> If publics do, in fact, respond differently to innovations depending on how they confer benefits or burdens to targeted groups, then this should emerge in patterns of diffusion. Policies that meet with the expectations of social constructivist theory—those that proscribe benefits positively constructed groups or policy burdens to negatively constructed groups—should diffuse more rapidly and extensively than policies that challenge these expectations.

In other words, a policy's target population is an important policy characteristic that could well drive its diffusion speed. The infertility insurance mandates case is especially ripe for an Ingram and Schneider-style social constructivist inquiry because it's fairly bursting with target populations that could go either way. On the benefits side, we popularly think of infertility treatment as a (potentially positively constructed) rich white person's problem, yet sociological research reveals high incidences of infertility among (possibly negatively constructed) poor minority populations. The burdens of infertility insurance mandates, meanwhile, fall on insurance companies—which are businesses, and thus positively constructed, and yet at the same time are the targets themselves of sometimes successful efforts to paint them as evil and undeserving of a benefit (profits) other businesses are thought to deserve. It's all fascinatingly murky—making this chapter's case studies-based exploration very much appropriate.

Verily vectored? The infertility as disease message

My fourth and final aim is to explore whether legislators attend to vector messages in legislative debate. This is another assumption that was left unexplored when Boushey imported the epidemiological model. He writes (2010, p. 182):

> Political scientists have speculated that the selection of venues and issue frames is often haphazard, but have overlooked how interest groups develop their rhetorical strategies, select venues, and evaluate and act upon policy successes during diffusion campaigns. Research into the development of framing and venue-shopping strategies could take the form of a detailed case-study approach, perhaps involving … expert testimony in state legislatures to trace changes in the tone and content of interest-group-sponsored legislation.

Again, the infertility insurance mandates case is a good place to start this exploration because there is just one lobbying organization on infertility insurance mandates, Resolve,[9] with a very simple lobbying message: Infertility is a disease worthy of insurance coverage. Does that message come across? That's what I aim to find out.

Research Questions

The literature reviewed above motivates the following research questions:

RQ1: Is it possible to classify policies that seem hopelessly hybrid?

RQ2: Do positively and negatively constructed target populations get discussed in legislative debate?

RQ3: Do legislators attend to vector messages in legislative debate?

Research Design

These research questions can best be answered with a method, case studies, neglected in the event history analysis-heavy policy diffusion literature. I believe policy scholars have missed the nuance policy characteristics offer in part because much research is method-driven rather than problem-driven (George, 2005). Event-history analysis is the norm in the

[9] The organization's full name is Resolve: The National Infertility Association.

policy sciences to such an extent that numerous journal articles feature the name of the method in the article title. But even heavily quantitative scholars can admit they need the nuance case studies offer. For instance, Nicholson-Crotty (2009) admits his quantitative analysis showing diffusion speed varies "does not ... provide a great deal of insight into the causal mechanism behind that observed relationship" (p. 200). So he does a case study of legislative records (but not legislative debate transcripts) from California on two policy innovations and confirms that the policy characteristics of complexity and salience are determinative.

I employ a comparative case study method in this chapter to determine how lawmakers treat policies with difficult combinations of morality and regulatory characteristics. Across cases, I employ structured, focused comparison (George, 2005). By this I mean I employ one case presentation structure for all three cases, focusing the reader's attention on the data of interest and providing for ready comparison between the cases. For each case, I:

- Describe the complexity of the legislation at issue.
- Present the major types of arguments proponents and opponents used.
- Rate the complexity of the legislative debate.
- Comment on the mentions of target populations, if any.
- Comment on the incidence of vector messages, if any.

These case studies are wholly illustrative. They are not intended to "prove," or even substantially demonstrate, how infertility insurance mandates diffused to the 16 states in which they are present. They are intended to demonstrate it is possible to distinguish between policy types, even in tough cases like infertility insurance mandates. They also illustrate the additional information we gain about policy diffusion when we, inspired by the epidemiological model, look more closely at the policy target characteristic and the penetration of vector messaging.

I begin by categorizing the arguments I encounter in my case studies of legislative debates in three states that adopted infertility insurance mandates. This follows the approach

in Studlar's (2008) study of tobacco policy, where he characterized arguments by advocates and opponents of tobacco control using such terms as "individual choice" and "commercial free speech." I use standard themes for comparison and report them in this chapter so other researchers can apply the same structure to replicate the study by examining other cases.

Justifying exploratory case studies requires identifying what is to be explored, the exploration's purpose, and the criteria for judging the exploration successful (Yin, 2003). I am exploring the interaction between policy characteristics and legislative debate with little prior research to guide me. The purpose is to soak in and poke (Fenno, 1977) the cases until I see patterns that allow me to better define the types of arguments lawmakers use when debating a policy that, on its face, seems as if it could be either regulatory or hybrid. The exploration will be successful when I have made a convincing case that difficult policies are classifiable into policy types when you look closely at how legislators spoke of them in legislative debate.

The qualitative research tradition calls for researchers to declare personal experiences that may bias their work (Creswell, 2003). My wife and I had been infertile for four years before achieving pregnancy during the writing of this dissertation, using IVF. The success followed failed attempts with a variety of artificial reproductive technology procedures that cost tens of thousands of dollars. I do not believe these experiences bias my work, and would argue my five years of experience as a newspaper reporter gave me sufficient practice detecting and eliminating bias.

Case Selection

My data sources are legislative committee and floor debate transcripts, and newspaper stories, from Illinois, Nebraska, and Connecticut. I chose Illinois, Nebraska, and Connecticut for my cases first because of data availability. Among the 16 states with infertility insurance mandates, only Illinois and Connecticut make transcripts of legislative debate and

committee hearings available on- line. Among the other 13 states, some require ordering photocopies of hard-copy transcripts at 25 cents a page, while others have no debate transcripts at all. While Nebraska's records were in hard copy and had to be photocopied, the expense was worth it because my in-depth knowledge of the Nebraska Legislature allows me to add detail to the Nebraska case study I would not be able to pro- duce for any other state. Also in the case of Nebraska I was able to obtain committee hearing transcripts, satisfying Van Evera's (1997) first criterion for case selection: data richness. Fortunately, these cases happen to vary significantly from each other, which satisfies Van Evera's second criterion for case selection: extreme values on the independent and dependent variables. Some examples of these differences:

Adoption: Infertility insurance mandates were fully adopted in Illinois; partially adopted in Nebraska; and fully adopted in Connecticut.

Provisions: Illinois' policy is the most generous in providing coverage for ART, Connecticut's is less generous, and Nebraska's provides no coverage for ART at all. (My generosity concept is similar to Glick and Hays' [1991] facilitation rating applied to living-will laws.)

Party control: At the times under study, the Illinois legislature was Democrat-controlled; Nebraska's was officially nonpartisan, with a Republican majority; and Connecticut's Assembly had split party control.

The Nebraska case also satisfies Van Evera's eighth criterion for case selection in that it is an outlier case poorly explained by existing theories, thus making a case study a good candidate for illuminating the mysterious causes of the outcome (just one mystery is how a Republican came to be a proponent of an infertility insurance mandate and a Democrat opposed it).

Limitations

The small number of cases I examine limits the conclusions I can draw from this exploratory study. It is important to note the information I am missing from other states.

(Table 3.4 about here.)

When we examine Table 3.4, we see a number of kinds of variation among states as regards their infertility insurance mandate legislation provisions. In the following paragraphs, I report what information my Connecticut and Illinois case studies contain and do not contain. I exclude Nebraska because, as I have established, it is a special case where infertility insurance mandate legislation was not adopted.

Year of adoption. The adoptions fall into four decades, when we can expect state legislative capacity to deal with complex legislation to have varied, and when we can expect available information about infertility insurance mandate legislation to have increased over time. By examining adoptions just in 1989 and 1991, I have missed some variation over time.

Mandate type: Most of the mandates are of the cover type, meaning they mandate insurers cover infertility treatments. But some of the mandates are of the offer type, meaning the law only mandates that insurers offer an insurance product for sale containing some infertility treatment coverage. I have one of each type in my case studies, but more cover-offer paired comparisons could generate important information about how legislators decide among less-complex and more-complex provisions. This is because cover provisions would presumably be more complex, with legislators more specifically regulating the exact actions of insurers.

IVF: The majority of states require IVF coverage, but five do not. Both of my cases are IVF-required legislation. But by not analyzing cases without IVF requirements, I may be missing an important morality discussion that led to the failure to include an IVF require-

ment. For instance, I might find the morality discussion in a no-IVF state is barely present, because the morality components were taken off the table at the bill-drafting stage. Or, I might find a lengthy and hard-fought morality discussion that resulted in deleting an IVF requirement through amendment when the initial bill required it.

Spouse's sperm: Four states require that infertility procedures be performed only with sperm from the infertile woman's spouse. This requirement falls squarely within the traditional families argument, and thus could be expected to have engendered debate in morality terms that would produce useful information. But Connecticut and Illinois do not differ on this provision; neither have this requirement.

Religious exemption: Five states offer some sort of exemption from the mandate requirements for religious employers, who have moral objections to infertility treatment. There is no clearer example of a provision that is related to a morality discussion, yet I again have no variance in my cases on this variable. Connecticut and Illinois both included a religious exemption, which may have headed off much of the potential morality discussion. I can't know without comparing my cases to those without a religious exemption.

Business size exemption: Here I have a more regulatory-type provision on which my cases do offer variation. Connecticut has no exemption designed to protect small businesses from the costs of covering infertility treatments. Illinois does; it exempts businesses with fewer than 25 employees. As with mandate type, having more business size exemption comparisons could generate important information about how legislators decide among regulatory-type provisions.

Case study: Illinois

Public Act 87-681 mandates infertility coverage in insurance policies that cover more than 25 people and provide pregnancy-related benefits. It covers the full range of ART, in-

cluding IVF, and contains only one limit: a lifetime cap of four egg retrievals, regardless of how they are retrieved and used. Before getting the benefits, patients must have "been unable to attain or sustain a successful pregnancy through reasonable, less costly medically appropriate infertility treatments for which coverage is available under the policy, plan, or contract" (215 Illinois Compiled Statutes, Sec. 356m). Procedures must be performed at clinics conforming to American College of Obstetric and Gynecology or American Fertility Society[10] guidelines. The law contains an exemption for organizations believing the mandate violates their "religious and moral teachings and beliefs."

If we were attempting to determine the Illinois law's type based on complexity, we would have to call it simple. The legislation runs just 309 words (see Appendix 1), and contains a simple list of covered procedures. On salience, we would look at the inclusion of coverage for IVF and judge that mildly salient because of how that implicates the abortion debate. But then we would have to decrease our estimation of the legislation's salience upon considering the number of people it would affect—in per capita terms, there are not that many infertile people, and the legislation limits its own reach to non-self-insured firms employing 25 or more people.

Illinois Senate Debate

The mandate's chief Senate proponent, Sen. John Cullerton, a Democrat, began his argument for the bill by acknowledging the costs of IVF procedures while aiming to minimize perceptions of their size and frequency (p. 49):[11]

> The types of services that can be provided can range … anywhere from just taking some drugs to a situation where, in about seven percent of the cases, there is a procedure of in vitro fertilization. That is something that can be

[10] Today called the American Society for Reproductive Medicine.
[11] In this section on the Illinois Senate debate, all citations are from State of Illinois 1991b. Thus I provide only the page number for each quotation.

> expensive, and therefore … we limit the amount of attempts of these in vitro fertilization procedures, so as to keep the cost of the policy low.

Cullerton went on to employ the other states are doing it argument, pointing out costs in other states had "been as low as sixty cents per family per month" (p. 40). (He did not specify whether that was per each infertile family, or per each taxpaying family in the general population.)

Cullerton also employed a family-friendly argument: "It's a matter of public policy, I think, that we ought to encourage people to try to have children if they want to" (p. 40). Senator D'Arco later made the same point: "This is a concept that is going to help infertile couples conceive of a child. … Isn't that what the public policy of the State of Illinois should be—to encourage people to have children (p. 44)?"

After Cullerton's opening testimony, the first opponent's first line of attack combined elements of the cost, mandate, and employers will suffer arguments—all in just two sentences from Sen. Calvin W. Schuneman, a Republican (p. 41):

> What the sponsor is trying to do is attach an amendment that would have your insurance policies share in the cost of providing in vitro fertilization and all of the testing that goes into that—a very, very expensive process, which is not currently provided by most insurance policies. And I think, once again, what we have to look at is whether we want to keep mandating additional costs on employers who are still struggling to find ways to provide health insurance for their … employees.

The next opponent, Sen. Emil Jones Jr., a Democrat, opened with the access to insurance and special interest arguments (p. 41):

> … [W]e are still trying to deal with the situation where you have many persons—the working poor—who have no insurance at all. And we have not resolved that particular issue before we take care of the very narrow, select group. And I think these issues should be dealt with prior to giving just a select small group … this coverage.

A mandate proponent, Sen. Aldo A. DeAngelis, a Republican, attempted to turn the opponents' cost argument around to focus on the financial burden on infertile couples, and

perhaps bring socioeconomic class into the debate: "… [F]or those people … who have a difficulty with infertility, there is no avenue open today, unless this insurance goes into effect, unless … you are very affluent" (p. 42).

The first day's debate was more than 60% complete before morality issues arose. Sen. Richard F. Kelly, Jr., a Democrat, spoke at length with concerns about abortion, paternity, and traditional families, and actually ended his speech with the word "moral" (p. 45):

> I see this bill in a different light … in that it would allow, as we talk about implants, we could have up to 10 … I even heard yesterday that there could be as many as 20 implants before conception occurs and a birth actually occurs. What I'm thinking about is … elimination of the 19 or so fertile eggs … and conceived as a abortion procedure …. I … don't know how we control … who is the natural father. I think if someone doesn't have a child of parents, mother and father, and they, husband and wife … want a child, well then, I don't know how we can say who is and who isn't the natural father. I mean, according to this concept, just about anyone could be … the father. And I don't know. I think it just has a lot of moral concerns to me, and I am going to oppose it.

The next speaker, mandate proponent Sen. Joyce Holmberg, a Democrat, tried to counter Kelly's abortion argument and, additionally, pit the costs of helping infertile couples against those of helping the terminally ill elderly. Implicit criticism of insurance companies also made a brief appearance (p. 45):

> We in this body talk about right to life and the right to live. This amendment assures that future children will have the right to live. We ask that insurance companies pay the bill, and rightly so. When we try to keep someone alive in their waning years, perhaps someone very elderly in their eighties, in their nineties …. [I]n fact, we know that some 25 percent of the Medicaid money is spent on the elderly, and three-fourths of that money is spent on the last year of life. It seems that if we are willing to do that—and we should be willing to do that—we should also be willing to approve insurance coverage for people who want to bring a new life into the world. A few thousand dollars, versus hundreds of thousands of dollars at the other end of life, it seems is a worthwhile investment.

Mandate opponent Sen. George Ray Hudson, a Republican, continued employing the abortion theme as he spoke of questioning a (presumably fertility) doctor at a committee hearing (p. 47):

> I asked him, "What if the woman cannot, for whatever reason, carry four or five [IVF-implanted embryos], or want four or five? … Are you not, then in a position where you have to abort the others?" Well, he said, "Well, there's a reduction. We call it reduction." He did not want to use the word "abortion," but I will say to you that this is a bill … that would mean selective abortion. … So we're creating life on one hand, which is fine, which is good, but on the other hand, we're giving the doctor the responsibility, in certain situations, of aborting or killing those that are not wanted.

Hudson made it clear his concern was the morality, not the regulatory, elements of the policy (p. 47, emphasis added):

> So we save those, promote those, foster those that are wanted, and eliminate and kill those that are not wanted. *This is my dilemma, more than the expense.* The insurance companies, of course, were up in arms about this. They thought it would add to everybody's cost …. *But my concern was … ethical*—and as a pro-lifer and a right-to-lifer … I could not get around this dilemma.

A compromise amendment was offered on second reading of House Bill 1470 in the Senate. The amendment exempted individual insurance policies, further decreasing the number of infertile couples to whom the mandate would apply. This did not placate the leading opponent of the bill, Schuneman, who continued to make a special interests argument against the bill: "I think that … many people who are supporting this idea … may not realize the very small group of people that are even going to be affected by this bill" (p. 193). Schuneman was characterizing infertile couples as a small group unworthy of special assistance in the form of the mandate. The argument over the number of people helped continued, with mandate proponent Sen. Robert M. Raica, a Republican, emphasizing the number of people who needed help (by his estimate, 85,000 infertile couples in Illinois), even though the mandate legislation itself, having been limited in its scope, would not actually help all

those people. So proponents tried to argue the number of infertile couples was a large one, meriting state assistance, while opponents argued exactly the opposite.

Debate on that amendment was brief, without any mention of morality issues. Abortion came up again only when the bill sponsor, Cullerton, mentioned it (p. 182, emphasis added):

> I have indicated in the past, with regard to legislative intent addressing the concerns of the pro-life issues, that this bill does not provide any coverage for insurance for abortions. This only provides for insurance to treat infertility, *which is sort of like the opposite of abortion*.

Opponents once again raised the special interest, cost, and employers will suffer arguments. Schuneman offered the classic free-market argument that costs imposed by the government are passed on to consumers (p. 183):

> … I think there are some members who think the insurance companies are going to pay for this additional cost. Believe me, the insurance companies are not going to pay the cost. Individuals are going to pay the cost. Small business is going to pay the cost.

Illinois House Debate

In the House, debate on the mandate legislation also involved cost, with proponents there making the same arguments as Senate proponents did—that the experience of other states had shown the costs to be negligible. There was considerably more argument in the House over particulars of the mandate's cost, though, with proponents touting small cost figures for IVF procedures and opponents doing the opposite, and representatives explicitly calling each other's figures incorrect. One opponent aimed to link mandates and costs firmly in House members' minds (State of Illinois 1991a, pp. 126-27):

> [W]hy should all of us as citizens and taxpayers of this state have to pay for something that people choose to do on their own? Now it is an emotional issue, but this is another mandate. … [W]e have debated over the course of the last couple of years the increased costs of health insurance. And we've tried to blame this and we've tried to blame that and we've said this is wrong and that's wrong. Well, this is another example of what is wrong. We are mandat-

> ing. … This is a mandate. Tomorrow we'll put another mandate on, the next day another mandate. And we now have unaffordable health insurance in this state. Why? Because we have not taken the time to be responsible in our job to say "no" to these kinds of mandates, even if they're worthwhile.

Abortion also arose in the House, though a proponent, Rep. Kathleen L. Wojcik, a Republican, first raised it: "You can hear the comments about this being against life. It is a pro-life concept" (p. 128).[12]

In the House there was also one instance of minimizing the problem. House members had been comparing an existing mandate for mammography coverage with the proposed infertility treatment mandate when Rep. David Harris, a Republican, offered this perspective (pp. 126-27):

> There is a difference between in-vitro … and coverage for mammography. And the difference is very simple, [failure to employ] mammography can lead to the death of the person afflicted [with cancer]. In other words, it is a serious … injury to the person who has that coverage. (Harris presumably meant "who does not have that coverage.") There is no potential harm to the person who cannot conceive.

Advocates for the infertile would argue a person who cannot conceive indeed does suffer harm in the form of psychological trauma. Harris' argument can be read as describing infertility as a regrettable condition, but not a harmful disease worthy of insurance coverage.

A free-market argument also was offered in the House. The argument, from Rep. Robert P. Regan, a Republican, was quite brief (p. 133):

> If they wish they can put this benefit on right now in any kind of [agreement] between the employer and the insurance company. It's available; if your company wants to pay for it, you can buy it.

Another difference between the House and Senate debates was the use by House proponents of a demonstration. Rep. Grace Mary Stern, a Democrat, introduced it (p. 133):

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[12] In this section on the Illinois House debate, all citations are from State of Illinois 1991a. Thus I provide only the page number for each quotation.

> … I want to draw your attention to two infants in the gallery. These are the best lobbyists we have on this bill and they are waving signs and trying to get your attention. Could you imagine what your lives would be like without your children at home hoping that you're going to get out by June 30th?

Stern acknowledged the opposition's employers will suffer argument with this statement: "We have done the things that were asked of us in sparing the small businesses …" (p. 134).

Illinois Conclusion

On balance, debate over the Illinois legislation was regulatory in flavor. Cost was the major concern. While the presence of coverage for a morally contentious medical procedure provided opportunity for a values debate, there were only glancing references to moral concerns and certainly no serious contention on those matters.

The Illinois Senate debate was not at all complex, while there was low complexity in the House, with proponents and opponents arguing in minute detail over dueling cost figures and the bases for arriving at them. But despite the legislation's coverage of some complex medical procedures, and its specific limits on the number of such procedures allowed, those provisions received no discussion beyond their cost details in either the Senate or the House. Perhaps the best assessment of the debate's overall low complexity can be had with this summary of the debate: It costs too much (opponents). No, it doesn't (proponents).

There were a number of mentions of target populations. The one instance of a family-friendly argument referred to the target population of families, which are positively constructed when thought of in general terms. We can interpret opponents' use of the special interests argument as an attempt to blunt the positive impact of the family-friendly argument by making those same families, in their small numbers, seem like a negatively constructed special interest. The several uses of the employers will suffer argument referenced positively constructed small businesses.

The vector argument that infertility is a disease meriting insurance coverage received only a glancing reference, when Rep. Harris compared mammography coverage with infertility treatment coverage and implied that infertility is only a regrettable condition, not a disease. Oddly, this lack of mention of Resolve's argument came despite Sen. Cullerton naming the group in his opening testimony on the legislation: "It's been put together by a group called Resolve, and it deals with the issue of providing insurance coverage for people who need to be treated for infertility" (State of Illinois 1991b, p. 39).

Case study: Nebraska

LB825, introduced in 2001 and debated in 2002, originally read: "The Legislature finds that male or female reproductive disease processes in and of themselves are serious health matters that need to be properly diagnosed, maintained, and treated. Refusal to cover basic reproductive health care procedures is discriminatory and leaves an entire sector of society susceptible to substandard care."

The definitions were much different from those you would expect of a person proposing an infertility bill. It defined reproductive health care to mean "the diagnosis, maintenance, and treatment of the natural reproductive process of the human body." So in Foley's mind, reproductive health care treats reproductive disease processes—but in contrast to the view held by Resolve, infertility is not in itself a disease. Rather, "Infertility is a symptom of an underlying disease process, therefore the procedures necessary to diagnose, maintain, or treat infertility shall be included in the definition of reproductive health care." Also in stark contrast to many advocates of "reproductive health care," the legislation provided that "[t]his term does not include abortion, artificial reproductive technologies, or contraceptive devices."

The bill was designed to address the common infertility exclusion in insurance policies, where medical interventions undertaken primarily to treat infertility are not covered. Foley alleged a pattern whereby insurance companies would judge some women unable to become pregnant (because of their youth or old age, for instance), and then pay to treat such conditions as endometriosis; but would not pay to treat those very conditions if the insured woman seemed able to become pregnant.

Nebraska Committee Hearing

Foley took a view opposite that of most infertility insurance mandate proponents in defining infertility not as a disease, but as a symptom of other diseases. His definition, given as he introduced the bill at a hearing of the Nebraska Legislature's Banking, Commerce and Insurance Committee, reveals his Catholic beliefs in (a) the purposeful design of human beings by God and (b) the central importance of procreation (Committee, 2001, p. 33):

> Infertility is a symptom, a mere symptom of an underlying disease process. After all, our bodies are designed to allow us to procreate, and when they fail us, something is wrong. There is something underlying, wrong with our bodies that needs to be addressed.

Foley employed the insurance companies are evil argument, taking the classic approach of mandate proponents in casting insurance companies as malefactors purposely excluding deserving women from coverage.

Indeed, his use of the word "labeling" calls forth connotations of malicious stereotyping and discrimination (p. 33):[13]

> The crux of the problem is that many patients are labeled by the insurance companies as having a fertility problem, and therefore their other medical needs, which … in some cases may be very pressing and very urgent, are not being covered, because they've been labeled as having a fertility problem (p. 33).

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[13] In this section on the Nebraska committee hearing, all citations are from Committee 2001. Thus I provide only the page number for each quotation.

Shortly thereafter Foley used even stronger language in criticizing insurance companies, implying their discrimination against fertile women makes them complicit in their deaths: "The word infertility on an insurance claim form is simply equivalent to death in terms of hoping to receive any sort of insurance compensation for these illnesses" (p. 33).

Foley made clear the regulatory intent of his legislation with this statement: "Whether or not she wants to become pregnant really is not the business of the insurance company to know" (p. 34). The insurance companies, of course, would argue this is indeed their business to know, as many of their insurance contracts are written specifically to exclude paying for efforts to become pregnant.

Foley used no morality language in referring to ART; rather, he referred only to cost in assuring committee members his legislation excluded such things (p. 35):

> Let me make clear what we're not asking for here. We're not asking for insurance coverages for what I would describe as the high-tech, highly expensive types of approaches to achieving pregnancy, thinks like in vitro fertilization. Also, we're not asking for mandated coverage for things like contraception.

The pro-business Democratic chairman of the committee, Sen. David Landis, was the first person to bring up morality. Landis asked why the bill did not have a conscience provision, saying (pp. 36-7):

> You're in the area of reproductive processes of the human body, something about which religions and morality and convictions run very high. … Are you telling me you cannot conceive that somebody else might have a moral conviction different than your own in this field?

Foley responded, "I think it would be a difficult argument to make with respect to this bill" (p. 37).

That statement ended Foley's opening testimony on the bill, but the morality question still lingered. A registered nurse, Michelle Keuten, opened her testimony in favor of the legislation with this statement: "The first thing I'd like to address, in response to your ques-

tion, Senator, this bill, we're trying to take this back and make this a medical issue, not a moral issue" (p. 37). Landis alluded to the long-running abortion debate in his reply to Keuten: "I've heard nothing but the moral implications of this natural process for all of the 23 years I've been in the Legislature" (p. 38). Later in response to questioning from another committee member, Keuten alluded to the perceived immorality of ART in emphasizing the bill would not require such procedures: "[W]e're not doing anything artificial here" (p. 39). The specific procedure of concern, IVF, was made explicit with a question from conservative Republican Sen. Jim Jensen: "So nothing, no in-vitro fertilization?" Keuten: "No." Jensen: "Nothing of that whatsoever?" Keuten (pp. 39-40):

> This bill selectively puts all of that stuff out of it, and says, this is what the basic reproductive process is. The ovaries are intended to release eggs to ovulate. And we're just giving something to help that body do what it's supposed to do.

Keuten's use of the word "artificial" is noteworthy because artificial reproduction is the opposite of the "natural reproductive processes" she, Foley, and others emphasized repeatedly in their testimony. With their rhetoric, they were calling natural reproduction right and moral because it is natural, where natural means God-designed. They were consequently calling artificial reproduction wrong and immoral. While Foley and Keuten did not refer to God by name, another person testifying in favor of the bill did. Interestingly, the reference to God came in response to a definitional question from Landis, the committee chairman: "Is infertility a disease, or is infertility a symptom, or can it be both" (p. 51). Barbara Shimerdla, a registered nurse like Keuten, responded, "We see it as a symptom of something that is wrong. … Obviously, something is wrong, or she should have the God-given way of having a baby" (p. 51).

This ended the discussion of God and morality at the committee hearing, save one bit of comic relief later as a medical billing manager, Linda Latture, recounted an example of

one insurance company incorrectly assuming a treatment was for infertility: "Years ago, I cleared a patient denied on fertility, by phone and without a medical degree. I cleared [the] fertility issue by pointing out the patient's vocation. She was, in fact, a nun" (p. 51).

In the committee hearing, opposition to the bill consisted entirely of insurance industry executives and lobbyists. One argument opponents used was we make mistakes. This was in response to the bill proponents' accusation of insurance company malfeasance. When claims for treating something like endometriosis get improperly denied on an infertility basis, opponents said, it's a mistake—nothing more. Said Dr. Timothy Ranney, medical director for Blue Cross/Blue Shield (p. 77):

> [O]ne of the issues here is that you can't process 8 million claims a year and not make a mistake. So what we do is we have processes in place to try to catch those mistakes, to allow people to appeal the decisions and things that occur.

A lobbyist for Blue Cross/Blue Shield, Randy Boldt, made the same point (p. 74):

> We're not saying everything is perfect, Senator. But we are saying that it is not our intent to circumvent coverage for the diagnosis and treatment of disease, regardless of whether that would lead [to] or prevent infertility.

In the committee hearing, proponents argued from two main perspectives: equity, in that denying coverage for medical procedures that affect fertility is improper sex discrimination, and insurance companies are evil. Here are just a few of many examples of proponents employing the equity-sex discrimination theme:

> "Let's make it a man going in for, say, a problem with undescended testes … . It directly impairs a man's fertility. Would insurance companies even begin to deny that as infertility treatment? I suggest not … "—Obstetrician Dr. Paul Hayes (p. 53).

> "… I think there are two components to this, the first being that there's definitely a male/female discrimination. Without a doubt, urologists are not dealing with the same kinds of things that we're [obstetricians] dealing with … being dismissed out-of-hand over a woman's reproductive system."—Hayes (p. 55).

> "This is discriminative against women to good reproductive health care."—Julie Rolf, patient (p. 68).

The other argument theme was insurance companies are evil. This theme began early with Foley's statement about insurance companies labeling people, as quoted above, and wove its way through the entire hearing. Edward Swotek, who along with his wife suffered from infertility, discussed at length the emotional trauma of living with the condition before criticizing insurance companies (p. 45):

> The ultimate inequity, however, is the shocking discovery that at such a vulnerable time of need, many health insurance companies and HMOs elect to avoid covering safe and effective intervention for this often treatable medical condition.

Another infertility patient, Amy Schenk, was more direct in her criticism: "After my problems with insurance companies, I'm beginning to see that they try to find any reason to deny someone coverage" (p. 62). Rolf, the patient quoted earlier, implicitly argued for taking decision-making authority over claims away from insurance companies: "Experiencing infertility at this time, it is hard to get good health care, because insurance companies have too much control" (p. 68).

Nebraska Floor Debate

God and morality were out of the way, so to speak, at the committee hearing, and indeed neither matter arose later in around two hours of floor debate on the measure before the Legislature killed it with a 30-13 vote (there are 49 senators in the unicameral Nebraska Legislature). The main theme became regulation, with proponents claiming the proposal was not a mandate and opponents claiming it was. The question at hand, the nature of the debate, was obvious: Should the Legislature interfere with private insurance contracts, or should it not?

Proponents argued implicitly for regulation, though not using that term and indeed explicitly disclaiming the word "mandate," as registered nurse Keuten did: "But the point we're making is, we're not asking for mandates, or moral issues here. We're just asking them to cover the natural reproductive process as it exists." Reading the whole of the committee testimony, as well as the floor debate on the measure, it is obvious both proponents and opponents know "mandate" is a dirty word; the proponents repeatedly try to shrug it off, while the opponents apply it at every opportunity. The second sentence of bill sponsor Foley's opening statement addressed the mandate question (Legislature, 2002, p. 11536):

> The other day I was telling one of our colleagues on the floor that my priority bill was about to be heard. And he remarked, oh yes, LB 825, that's the bill would mandate insurance companies to cover infertility treatments, right? No. That is precisely what we're not trying to do with this bill.

Things did not go well for Foley on the mandate question, as the first supporter of his bill to speak, Sen. Pam Redfield, a Republican, strayed off message on mandates, but stayed on message regarding the sex discrimination theme (p. 11546):[14]

> And I can tell you that I've never been a fan of mandates on insurance because I do recognize the fact that they raise the cost of insurance for all of the people out there. But I also recognize that fact that … I have … known a number of young ladies who have had problems with endometriosis. And I don't believe we should have policies which discriminate against people just because of their circumstances in life.

Two of the three themes opponents used in opposing the measure, both in the committee hearing and in floor debate, were free markets and access to insurance. The second opponent of the bill to speak during floor debate, Sen. Pat Bourne, a Democrat, started a mandate refrain that continued through the rest of the floor debate (p. 11548):

> But I don't believe that a mandate on an insurance policy is the way to help them. No matter what you want to say about this, Senator Foley can protest all he wants, but this is clearly a mandate.

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[14] In this section on the Nebraska floor debate, all citations are from Legislature 2002. Thus I provide only the page number for each quotation.

Bourne tied mandates explicitly to costs (p. 11548):

> The state of Nebraska has some of the lowest insurance rates in the entire country, largely because … we've largely rejected mandates because we feel, as a policy, they're not wise.

The mandate legislation ultimately failed when a delaying tactic won on a 30-13 vote, effectively killing the bill. But Nebraska still counts as a state with an infertility insurance mandate because of an off-the-floor deal made by the legislation's chief opponent, Landis, the Banking and Insurance Committee chairman. He convinced major insurance companies operating in Nebraska to agree to a memorandum of understanding of sorts stating they will not deny coverage for treating conditions that could be related to a woman's fertility. Thus, Foley's main purpose was achieved, without legislation.

Nebraska Conclusion

Nebraska is a fascinating case because the sponsor of mandate legislation was a Republican and Catholic state senator opposed to ART. In this case morality arguments played small role, because the big moral controversy of ART was mostly off the table from the start by design of the legislation. The case additionally reveals that quantitative efforts to explain policy diffusion using variables such as the party identification and religious preferences of the legislators involved can sometimes fail to tell the whole story. Republican party identification may usually predict opposition to insurance mandates, but not in this case. Usually we would expect at least some religious identifications to be predictive of opposition to an infertility, because of ART's association with abortion. But again here we have an unusual case: a Catholic legislator, Sen. Mike Foley, proposing an insurance mandate after explicitly excluding the ART provisions Catholics generally oppose. (A close look at the specifics of the legislation is necessary to discover this.) This case further calls for the present qualitative analysis because the mandate outcome ultimately came not through legislation, but through a be-

hind-the-scenes deal between a powerful committee chairman—himself a pro-business Democrat opposed to mandates—and major insurance companies.

In terms of the arguments used, Nebraska's debate was certainly more moral in flavor than Illinois', but still mandate-focused and thus regulatory on balance. This is not what one would expect from a quick glance at the legislation itself, because Nebraska's legislation contained no abortion-implicating IVF provisions. Illinois', of course, did; yet when we compare the two debates, we see more morality arguments over the legislation with no morality content.

The Nebraska committee hearing contained two instances of low complexity. The first was the discussion of insurance company billing practices, and the second was the slightly technical discussion of differences in male and female reproductive problems. The floor debate was not at all complex; the whole discussion can easily be summarized as, "It's a mandate, and therefore bad (opponents)," and "No, it's not (proponents)."

Target populations received more mentions in the Nebraska than in the Illinois case. This was primarily due to proponent's frequent use of the insurance companies are evil argument; the effort to construct insurance companies as deserving of burdens was perhaps most stark when Foley implied their discriminatory practices made them complicit in women's deaths.

Interestingly, the vector argument that infertility is a disease was off the table by the design of the legislation's proponent, who based his argument around his Catholic belief that fertility is the natural state of the human body and that infertility is only a symptom of other disease processes. The Resolve point of view only came up in its intended form when Landis asked the definitional question during the committee hearing.

Case Study: Connecticut

The Connecticut legislation, Public Act 05-196, is by far the most complex of the three cases examined here. Weighing in at five times the length of the Illinois law and more than seven times the length of the Nebraska bill, it provides a number of highly specific coverage limits:

- Two embryos allowed per IVF procedure.
- Two IVF, GIFT, or ZIFT procedures allowed.
- Only people under 40 qualify.
- Lifetime maximum benefit of $10,000.
- Procedures must be performed at facilities that "conform to the standards and guidelines" of the American College of Obstetricians and Gynecologists or the American Society for Reproductive Medicine.
- Benefits available only to those who have carried the insurance policy at least 12 months.
- Coverage for IVF, GIFT, and ZIFT available only for those "who have used all reasonable, less expensive and medically appropriate treatments covered under the policy" and are still childless.
- People who successfully conceive with the coverage can't use the coverage again.

A few provisions are complex enough that you might expect legislators to delegate these details to the rulemaking bureaucracy, such as:

Specifying by name a number of additional infertility treatments.
Providing separate, and different, coverage limits for these procedures.
Requiring that people disclose to their insurance companies past infertility treatment covered by another insurance company.

But in fact, contrary to the expectation of the regulatory policy literature, there was no delegation to the bureaucracy.

Discussion of the bill happened in four forums, in this order: a Public Health Committee hearing, an Insurance and Real Estate Committee hearing, Senate debate, and House debate.

Connecticut Public Health Committee Hearing

This hearing had an almost entirely regulatory flavor, with proponents and opponents focusing mainly on cost and access to insurance arguments. The cost discussion revolved around IVF, with proponents employing the cost argument and opponents emphasizing IVF's per-treatment costs.

Proponent Pamela Pepe, lobbyist for a company that makes infertility medication, brought some complexity to the hearing with her hidden costs argument (p. 33):[15]

> … [M]ost insurance already provides some infertility coverage, be it through what is called a major medical benefit that tends to cover costly, less effective tubal surgery, such as the removal of a woman's endometriosis or a man's varicose veins from the scrotal sac.

Proponent Janice Falk, president of Resolve of Greater Hartford, cited her personal experience with the hidden costs of higher-order multiples (p. 38):

> You cannot imagine the agony of wanting a baby so very badly, and being put into a position where some or all of your babies might die or suffer severe disabilities because of the treatment you did. And we would have never been put in that position had our insurance paid for our treatment, because we would never have taken the risk of transferring three embryos.

Interestingly, both opponents and proponents used the mandate argument. Christine Cappiello, lobbyist for Anthem Blue Cross Blue Shield of Connecticut, worked cost and the specter of IVF into her argument (p. 52):

> By looking at other states, in Massachusetts, which has an almost identical mandate which was enacted into law for five years, in vitro utilization rose to a level that's approximately five times higher than the rest of the United States or Canada.

Cappiello later combined mandate, equity, and employers will suffer arguments. Referring to small businesses, she said (pp. 52-53):

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[15] In this section on the Connecticut Public Health Committee hearing, all citations are from State of Connecticut 2005c. Thus I provide only the page number for each quotation.

> They don't have a choice. They have to take all the mandates. Large employers have the opportunity because they're self- insured to not take the mandates, generally they don't, and this entire cost is borne by the small employers, which is generally groups under 50.

Connecticut Business and Industry Association lobbyist Eric George worked to implicitly counter the infertility is a disease argument by saying healthcare is a consumer product, and thus not a right with accompanying sub-rights for disease treatment (p. 44):

> And you can compare healthcare to other products, such as automobiles. If you took the mandates that are currently in Connecticut's statutes and were to apply them to automobiles, what you're telling the consuming public is, you do not have the opportunity, or the option, to purchase a less expensive model. You can only purchase the luxury model.

Proponents usually avoid the mandate word in such debates, but Rep. Themis Klarides, a Republican, fully engaged on the opponents' terms by acknowledging the legislation was a mandate, and a worthy one. Addressing one of the lobbyists, she said (p. 46):

> Your job is to make sure that there are as few mandates passed as possible. Ideally, you would like to have none. Realistically, you know that some will pass and some will not pass. But I guess to me, and I've been a huge supporter of this, and most people know that, I just think that in the whole world of mandate argument and the rising price of healthcare, there are certain things that are worth it and certain things that are less worth it. Every year we come in, and we, the people that are arguing against new mandates, and believe me I understand we have a huge issue with healthcare costs, and I understand that we don't come in and pass mandates willy-nilly, but there are certain mandates that are just worth it.

Proponent Adrianna Manning was one of just two people to employ moral arguments, taking the insurance companies are evil tack (pp. 40-41):

> In order for this bill to seem more real and less of a money issue for the insurance industry, I will share my story with you. … The concern on how to pay for medical treatment that should be paid for by the insurance industry through our premiums is the worst feeling. The unfairness of it all is very degrading.

Using the right thing to do argument was Sen. Andrea Stillman, a Democrat (p. 47):

> I understand the decency behind providing appropriate healthcare for my employees. You know, I find it sort of interesting and sad that we have to

> pass mandates for some of these items that you have listed here, such as colorectal cancer screening, mammograms, early intervention services for children birth to age three, diabetes management, etcetera.

Connecticut Insurance and Real Estate Committee Hearing

Compared with the earlier Public Health Committee hearing, the Insurance and Real Estate Committee hearing contained a great deal more morality content. Still, regulatory concerns dominated. Testimony at the hearing also was slightly more complex.

Two testifiers used the family-friendly argument. Jennifer Kanios spoke of the strain infertility places on married couples (p. 84):[16]

> Is this disease going to ruin our marriage? I would hope not and I think not, but I do think about all these marriages this disease has destroyed in the past and it will destroy in the future unless covered by insurance.

Anita Steenson explicitly tied family-friendly policy to state tax revenue (p. 91):

> I mean, if, and the interesting thing is we're trying to create future taxpayers here, our children. There's a goal which will have a benefit that will be reaped.

The hearing was notable for the large number of insurance companies are evil arguments. Rep. Melissa Olson, a Democrat, called insurance-covered procedures like tubal ligation "Draconian" (p. 12); Anita Lipski dug at insurance companies' coverage of Viagra and similar drugs, calling infertility "not more or less important than erectile dysfunction" (p. 88); and Michelle Mudrick called out insurance company leaders specifically: "I think if the CEO of Anthem or HealthNet or any other insurance company was dealing [with] infertility, they wouldn't think twice about adding this coverage to their policies" (p. 77).

Steenson used the evil insurance companies argument most directly, referring to their opposition infertility coverage and other mandates as shameful and murderous (p. 91):

> I looked at the testimony that the CBIA put and they listed the number of mandated insurance bills and basically what I say is that should be the list of

[16] In this section on the Connecticut Insurance and Real Estate Committee hearing, all citations are from State of Connecticut 2005b. Thus I provide only the page number for each quotation.

> shame, the fact that people have to come here before the Legislature and ask for coverage for women that have lost their hair due to breast cancer radiation. The fact that this Legislature has to mandate coverage for things, to me, is a shame and thank God we have you here because without you the insurance companies would put us in the grave early, basically is what it comes down to.

This hearing was the only setting where explicitly religious concerns came up, and then only briefly and in a technical sense. One of the sponsors asked the committee to include a previous year's bill's religious employer exemption in the committee's draft of the current bill, and later a committee member asked what appeared to be simply a clarifying question about the provision.

The last major type of morality argument offered was right thing to do. Two proponents used "wrong" and "shame" in their arguments, while two others appealed to personal sympathies. Rep. Don Sherer, a Republican, referred to infertile people in general (p. 70): "The people who are suffering through infertility are suffering. They want a family as much as anyone else." RESOLVE lobbyist Julie Greenstein brought the concern closer to home (p. 74):

> Infertility is a painful club that no one wants to belong to. I know this from personal experience. Some members of this Committee may have been inflicted with infertility, or it is likely that someone you care deeply has been inflicted. Because of the stigma associated with infertility it is also likely that someone close to you is suffering with infertility and has not told you.

Despite this increased morality content in the Insurance Committee hearing, regulatory concerns still dominated. The seldom-seen adoption is not a better option argument came up when Mudrick cited the seldom-discussed high cost of adoption (p. 78):

> We spent $28,438 in fees to adopt our son, and we are still paying fees for post-adoption paperwork. To adopt again or to pay for IVF would be a great financial burden for us.

As with the previous hearing, though, the majority of discussion centered on the hidden costs argument. Perhaps the most creative argument came from Lipski, who extended the costs to extended families (pp. 87-88):

> I've dried tears and watched my daughter wither under the weight of self-loathing because she cannot give her husband a child. … Multiply those 40,000 infertile couples times four those parents of the infertile, who are older and less resistant to stress. Rising blood pressures, severe changes in diabetes because of stress eating, repeat visits to the doctors, that's what this problem has cost our insurance company.

Lobbyist Pamela Pepe used the hidden costs argument to counter the opposing employers will suffer argument (p. 61):

> These folks are in the system for years accessing every covered treatment they can in pursuit of their dream. Now, if I were the employer, and I tried to put myself in the shoes of the opponents, I'd want my employees at work. I wouldn't want them spending years in the healthcare system accessing ineffective, costly treatments like the tubal surgery available through the major medical benefit plans that they have now. As a payer of premiums, employers are better [off], I think, paying for the correct treatment for their employees rather than treatment that their employees don't need.

Olson tried to characterize the infertility treatments he supported as more than just cost-savers: "It is time that we *invest* in treatments that actually cure the disease of infertility" (p. 11, emphasis added).

A committee member and a member of the public ridiculed what they saw as insurance companies' blindness to cost savings from covering infertility treatments. Rep. John Geragosian, a Democrat, was clearly frustrated (p. 91):

> I mean, I've been on this Committee for ten years now and it just never ceases, it always frustrates me when they, the companies come in and oppose mandates that most of the time would save them money down the line just because they oppose mandates.

Steenson replied (p. 91):

> Exactly. The company would've sent, saved tens of thousands of dollars if I hadn't had to do nine covered IUI cycles and I could've just done the one IVF cycle which is what my doctor said I needed.

Opponents employed solely regulatory arguments in their testimony. Rep. Brian O'Connor, a Democrat, asked about cost sharing (p. 23):

> And would you be willing or would you consider any way kind of a sharing of that cost beyond the drug treatments and the initial testing as far as the surgeries and the in vitro? That way there's a partner between the insurance carriers and you know also the small businesses that are supplying the coverage and the person seeking treatment.

Rep. Steve Fontana, a Democrat, employed the access to insurance argument (p. 12):

> For many of them, what they want is to be covered until they succeed and that's a laudable goal, but not necessarily one that we can accommodate within a benefit structure where we're trying to accomplish the most good for greater number of people.

Committee testimony became complex when an opponent sought more detailed regulation and a proponent used a complicated comparison. O'Connor, the opponent (p. 66):

> What are your thoughts on maybe limiting it to a number of instances like you know the number of cycles for IVF or just different stages, where after a while you're like you have to bear some of the cost because I know age is a factor as far as ovulation, is there an age cap like say beyond 40 years old, you know, you don't offer this?

Pepe, the proponent (p. 67):

> It'd be like not covering oral antiemetics for chemo patients and making them continue to take intravenous medicine for not throwing up when they get chemo.

Connecticut Senate Debate

The Senate debate was notable for opponents' use of two less-common arguments: adopt instead and minimizing the problem. Sen. Bill Finch, a Democrat, made an impas-

sioned and extended argument for spending Connecticut's resources on its existing foster children (pp. 25-27):[17]

> We always move adoption in this Chamber, adoption of bills. But I rarely hear discussion of moving adoption as a great option for people. And that is the heart at which I oppose this bill. … I wish that I could allow them (infertile people) to have nature proceed its natural course and give them a loving, caring family that they create. But I haven't seen any difference between those families, by and large, and those that are created through other arrangements. The reason why I stood here aggressively and argued so passionately for gay civil unions was because I saw many gay couples create a family through love. That was the essential. Love did make a family. … (Referencing 5,000 foster children in Connecticut) We are going to increase the expense of healthcare for the average citizen. We are not doing anything to work on the children who have already been born that we're ignoring. … This will increase the number of people without healthcare, and it will compound the problem that we already have (with foster children).

In the middle of that line of argument, Finch switched to minimizing the problem:

> It's not $40,000 for them to undergo cancer treatment to save their life. It's not $40,000 for them to be screened to prevent a disease. It's $40,000 for them to conceive a child. And that's a beautiful thing and a wonderful thing, but it isn't fair to push healthcare beyond the limits for other middle-class families and other small business to be able to afford because there is another solution.

Proponents also employed a less-common argument, the regulatory one of equity. Sen. Joseph Crisco, a Democrat, said the mandate legislation (p. 19)

> addresses an issue that, to date, has only been possible for people with very high incomes to pursue infertility treatment. It kind of sets up a class system that I believe that all of us are very concerned about, and it gives people hope.

Beyond that, the Senate debate was fairly uninteresting. Proponents employed a morality argument (insurance companies are evil) just once, and made a brief factual reference to the bill's religious exemption provision. Opponents did not address morality at all. On the

[17] In this section on the Connecticut Senate debate, all citations are from State of Connecticut 2005d. Thus I provide only the page number for each quotation.

regulatory side, proponents used the hidden costs and disease arguments, while opponents used cost and access to insurance arguments.

Connecticut House Debate

Morality concerns were most evident in the House debate, with opponents employing traditional families and undeserving targets arguments. The traditional families debate was not especially contentious, however, with opponents simply asking questions—not making speeches. Rep. Pamela Sawyer, a Republican, asked whether the legislation would cover surrogacy arrangements, while Rep. Penny Bacchiochi, a Republican, inquired first whether marriage was a prerequisite for coverage. She then asked about lesbians in civil unions, first whether they would qualify, and second whether the lifetime procedure cap would apply separately to two women in a civil union—essentially, giving them four tries with IVF instead of two.

Rep. Bob Farr, a Republican, cited Connecticut welfare benefits recipients as undeserving targets (pp. 42-3):[18]

> We're going to say that if somebody is a welfare recipient, if they're receiving assistance from the State of Connecticut, we're going to assist them in having additional children. Now, I'm not sure that it makes a lot of sense that we're going to provide infertility coverage for people who are receiving benefits from the state so that we can expand the cost of those benefits. Obviously, if someone is a recipient of the state, of state benefits, if they have additional children, we're now going to have to pay for those children as well. I'm not sure that makes an awful lot of sense from a public policy point of view and I certainly think we should have addressed, and should address those issues.

On the regulatory side, proponents mainly used equity arguments. Said Rep. DebraLee Hoven, a Republican (p. 44):

> Infertility is something that's beyond your control. Now, we insure people who smoke. We insure people who eat crap and get, you know, different diseases. We insure people who have very bad habits that are well within their

[18] In this section on the Connecticut House debate, all citations are from State of Connecticut 2005a. Thus I provide only the page number for each quotation.

> control. But someone who is infertile has no control over that, and I would say that we should definitely insure them.

Rep. Arthur Feltman, a Democrat, continued the theme (p. 59):

> And I think it's incumbent upon us, the lucky ones who are able to reproduce, to assist those and to help pay for those who are not so fortunate. And I realize that there's some cost involved, but yet the individuals who are infertile are paying the cost as well, not only through their insurance premiums, but also through their co-pays and deductibles. … Madam Chair, it's been said before that our heart goes out to those people who are infertile or are having difficulty with fertility. I think our wallets need to go out to them as well.

Opponents used nearly every regulatory argument in the book, touching on access to insurance, cost, disease, employers will suffer, individual responsibility, mandate, scarce resource and special interest themes.

On cost, there appeared to be a rhetorical strategy, with opponents repeatedly using modifiers such as "extraordinary" and "extreme" to describe the cost of providing IVF procedures.

On access to insurance, the most-used argument theme, Rep. John Harkins, a Republican (p. 78):

> Earlier on, I heard it's about families and you know, this is going to benefit families. I actually think this is going to hurt families because it means that less families will have insurance coverage.

On disease, Rep. Richard Belden, a Republican (pp. 62-3): Infertility is "not a physically life-threatening issue and it is a mandate and I'm probably not going to be able to support it."

On special interests, Farr (p. 69):

> And what we're doing is, we're giving, requiring a very large cost to health care plans in order to cover one group of people and not covering a lot of other people who would desire to have some coverage.

Connecticut Conclusion

As with Illinois and Nebraska, on balance Connecticut's debate was more regulatory than morality in flavor. Indeed, I place it between Illinois on the low end and Nebraska on the high end, which just draws more attention to the unusual nature of the Nebraska debate (no abortion-implicating provisions in the debate, yet lots of morality discussion).

The Public Health Committee hearing testimony was neither complex nor particularly salient, with only the mention of specific infertility conditions contributing to any complexity and few direct references to how infertility affects large numbers of people. The House debate was the most complex, with references to lookback provisions, the "Assisted Reproductive Technologies Continuum of Care," various specific ART procedures, and acronym-laden mentions of federal laws affecting the Connecticut legislation's scope. Taken together, Connecticut's debate was the most complex among the three states.

The Connecticut debate contained by far the most references to target populations. As in Nebraska, proponents tried repeatedly to paint insurance companies as evil and deserving to be assigned burdens by the legislation. Opponents, meanwhile, tried to dampen the positive social construction of "people just wanting to start families" by characterizing infertile people as special interests. These same opponents also played on sympathy for positively constructed small businesses with their frequent use of the employers will suffer argument. Interestingly, the Connecticut debate featured a reference to an indisputably negatively socially constructed target population, welfare recipients; opponent Rep. Farr explicitly used that target population's inclusion in the legislation's benefits as a way to tar the mandate proposal itself.

The vector argument did not do well in Connecticut; in fact, it only arose in opponents' claims that infertility is not a disease, in both the committee hearing and floor debate settings.

Conclusion

These case studies have shown there is a lot more to the politics of infertility insurance mandates than would meet the eye without such an in-depth qualitative analysis. The cases of Illinois and Nebraska show that the principles of human reproduction underlying the infertility insurance mandates issue can upend a reasonable a priori hypothesis that regulation-oriented liberal Democrats would tend to support such mandates, and market-oriented conservative Republicans would tend to oppose them. In the Illinois case, we saw Democrats mainly supporting mandate legislation and Republicans mainly opposing it. But in Nebraska, the reverse was the case, with a conservative Catholic Republican state senator pushing the bill and a pro-business Democrat leading the opposition.

What answers have I found to my research questions? Research question one was, "Is it possible to classify policies that seem hopelessly hybrid?" The answer is yes. Overall, the case studies have shown that in all three states, legislators employed more regulatory arguments than morality arguments. Also, the policy characteristic that we would expect to generate morality-flavored debate—the connection between ART and abortion—in reality gets discussed very little. (Oddly, in Nebraska, where IVF and other morally troublesome assisted reproductive technologies were left out of the legislation by the sponsor's design, the debate actually included more morality content, compared with Illinois and Connecticut's debate.) My case studies gave me a reasonable basis to conclude infertility insurance mandates should be classified as regulatory policy—a classification I will now go on to test in Chapter 4. Answering the first research question also showed researchers must not simply

glance at a policy like infertility insurance mandates and make a snap judgment it is a morality policy based on the abortion connection. Researchers must look in detail at each law, as the epidemiological model's central focus on policy characteristics demands.

Research question two was, "Do positively and negatively constructed target populations get discussed in legislative debate?" I asked this question in order to explore what sorts of policy characteristics can be found when conducting case-study research on legislative debate. The aim was to give future researchers guidance on productive avenues for research. My case studies have shown target populations are worthwhile for examination. In the Illinois case, two positively constructed target populations were pitted against each other on the cost issue; that is, legislators debated whether the cost to families of paying for their own infertility treatment was more important than the cost to small businesses of higher insurance rates. An interesting feature of the Connecticut case was opponents' attempts to take positively constructed families and negatively construct them as special interests. In the Nebraska case, the attempt to paint negatively constructed large insurance companies as deserving of assigned burdens failed in the face of opponents' "mandates are bad, anytime, for anyone" argument. Future research could examine in a variety of cases whether *a priori* predictions can be made of the victor in a battle between two positively constructed target populations.

Research question three was, "Do legislators attend to vector messages in legislative debate?" This exploratory question was important because it links this dissertation's focus on the viruses portion of the epidemiological with the vector portion, which requires development in future research. The two model portions are intimately connected, because vectors should, theoretically, choose the combination of virus characteristics they judge most likely to successfully infect the host. But vectors aren't directly present in the legislative chamber,

unless you consider legislators to themselves be vectors—a point worthy of exploration. In two of the three cases I examined we find a real paucity of references to the only pro-mandate lobbying organization's central message, which is that infertility is a disease worthy of insurance coverage. One can see why the pro-mandate organization, Resolve, would choose this message; if infertility is a disease, it must be worthy of insurance coverage. In Illinois, one can say Resolve, the primary pro-mandate interest group, had success because its preferred issue definition—that infertility is a disease—was seriously in contention to be the winning definition. In Nebraska, by contrast, there is no evidence of Resolve's involvement; indeed, the Nebraska legislation's sponsor explicitly defines infertility not as a disease in itself, but as a symptom of other diseases. Was this because Resolve did not have the resources to lobby in Nebraska? Did Resolve actually passively oppose the Nebraska legislation because the sponsor would not have agreed to the group's issue definition? Additional investigation employing personal interviews is necessary to answer these questions. This shows that when future researchers want to examine policy diffusion from the vector part of the epidemiological model, it would be useful to interview a representative of the lobbying organization to get a quick read on what to look at, and what not to bother with. But if the answer is the former—that Resolve did not have the resources—that fills in a blank in Boushey's (2010) model, because Boushey looks to interest group resources (or the lack thereof) as a key explanatory variable. The Nebraska case, with its Catholic Republican proponent of an infertility insurance mandate, has also shown that policy entrepreneurs on this issue are not always the pro-regulation liberal Democrats one might expect.

Chapter 3 Tables

Table 3.1: Smith's Non-Morality and Morality Policies

Policy	Non-Morality % Rating	Policy	Morality % Rating
Allowing tax deductions for interest payments on car loans	92	Outlawing abortion	80
Sale of public utilities	86	Legalizing same-sex marriage	74
Taxing corporations who shift jobs overseas	74	Legalizing prostitution	58
Legalized gambling	70	Making access to health care a right of all citizens	56
Term limits	69		
A tax on graduates of public colleges	56		
Fines for deceptive business practices	56		

Table 3.2: Boushey's Morality Policy Classifications

Abortion Victims Rights Amendments	Crime Victims Compensation	No Fault Divorce Laws
Amber Alert	Death Penalty Re-Enactment	Parental Involvement
Anti-Age Discrimination	DUI .08 Per Se Legislation	Post Conviction DNA Bank Access for Exoneration
Anti-Stalking Laws	Equal Pay for Females	Prohibition of Alcohol
Ban Recognition of Out of State Same Sex Marriage	Hate Crimes—Include Protections for Homosexuals	Sodomy Laws—Repeal
Child Abuse Reporting	Medical Marijuana	Statutory Rape Age Span Laws
Child Access Prevention Laws (Gun Locks)	Needle Sales for IV Drug Users	Three Strikes Sentencing Laws

Table 3.3: Boushey's Regulatory Policy Classifications

Accountants licensing	Engineers Licensing	Pharmacists Licensing
Air Pollution Control	Fish Agency	Portability- Health Insurance
Alcoholic Beverage Control	Forest Agency	Preexisting Condition limits—Health care
Architects Licensing	Guaranteed Issue, Health Insurance	Primary Seat Belt Laws
Automobile Registration	Guaranteed Renewal Health Insurance	Public Housing - Enabling Legislation
Ban sale of out of package cigarettes.	Integrated Bar	Real Estate Brokers - Licensing
Beauticians Licensing	Lemon Laws	Seasonal Agricultural Labor Standards
Board of Health	Mandatory Child Passenger Restraints	Seat Belt Laws (Required)
Bottle Bills (Recycling Deposit)	Mental Health Standards Committee	Slaughter House Inspection

Charter Schools Enabling	Migratory Labor Committee	Teacher Certification - Elementary
Chiropractors Licensing	Minimum Wage Law	Teacher Certification - Secondary
Conservation of Gas and Oil	Nurses Licensing	Utility Regulation Commission
Dentists Licensing	Parolees and Probationers Supervision	Zoning in Cities - Enabling Legislation

Table 3.4: State Infertility Insurance Mandate Provisions

State	Year	Mandate Type	IVF	Spouse's sperm	Religious exemption	Business size exception
Arkansas	1987	Cover	Yes	Yes	No	No
California	1989	Offer	No	No	Yes	No
Connecticut	1989	Offer	Yes	No	Yes	No
Hawaii	1987	Cover	Yes	Yes	No	No
Illinois	1991	Cover	Yes	No	Yes	<25
Louisiana	2001	Prohibit	No	No	No	No
Maryland	1985	Cover	Yes	Yes	Yes	<50
Massachusetts	1987	Cover	Yes	No	No	No
Montana	1987	Cover	No	No	No	No
New Jersey	2001	Cover	Yes	No	No	<50
New York	1990	Cover	No	No	No	No
Ohio	1991	Cover	Yes	No	No	No
Rhode Island	1989	Cover	Yes	No	No	No
Texas	1987	Offer	Yes	Yes	Yes	No
West Virginia	1977	Cover	No	No	No	No

Chapter 4
Testing Classifications

> Any time we observe a non-normal distribution of policy change, we must conclude that incrementalism cannot have caused it; some other process must have created it. So *distributional analyses can be used to study processes; indeed, they should become central to future tests of policy processes* since they allow clear distinctions among competing hypotheses, and clear generalizations beyond one policy area at a time, which is not the case in traditional time-series approaches.
>
> Jones and Baumgartner, 2005 (emphasis added)

In this chapter I continue my focus on policy characteristics by using a different method to test the decisions other scholars have made in classifying policies as either regulatory or morality. My first aim in this chapter is replication, confirmation, and extension, important components of the scientific enterprise and ones pursued far too rarely in political science. Here I am replicating and confirming findings about policy type in Smith (2002) and Boushey (2010), and then extending them to find groupings of similar diffusion curves useful for future research. The more we replicate and confirm judgments about policy type through this chapter's diffusion curve analysis the more we assemble groups of similar diffusion curves, the more we can make confident *a priori* predictions about diffusion speeds for classes of policy. This is as important for policy study as publication of effect sizes is in designing experiments with sufficient power to find statistically significant differences.

In pursuing this first aim, I illustrate the utility of a new and simple method for quickly making preliminary decisions about policy types by examining their diffusion speeds. This diffusion curve analysis method is easy to understand, can be implemented in a spreadsheet, and provides obvious visual hypothesis testing (Jones and Baumgartner, 2005). Refreshingly, this method represents a return to the tried-and-true interocular shock test; it helps surfaces differences between policies that hit the researcher between the eyes. The

method facilitates comparative analysis across policies because the X and Y axis scales are the same[19] and the theoretical curves are fit to the scale. In other words, one can use the method to make several graphs, one for each policy, and the only thing that will vary is the plot of the diffusion speed for each policy. I show that for the policies I examine, visual evaluation as one step in a rigorous evaluation of policy type is enough; it's obvious when a policy has diffused more rapidly, indicating it's closer to morality policy, or more slowly, indicating it's closer to regulatory policy.

My second aim in this chapter is to test my findings from Chapter 3. Did I correctly classify infertility insurance mandates in Chapter 3? Will a diffusion curve analysis in this chapter show it was possible to get a fairly accurate read on policy type from just the three cases analyzed in Chapter 3?

My third aim in this chapter is to argue for using the new and simple curve analysis method presented here as a data reduction method that can facilitate quick hypothesis generation and testing. I hope this will play a part in hastening the advance of knowledge in the policy sciences.

Curve analysis in policy study

Diffusion curve analysis works because incrementalism predicts a normal distribution of policies with a few adopting early and a few adopting late, and most adopting somewhere in the middle (Rogers, 2003). When you plot this distribution on a graph where the y axis is the cumulative number of adoptions and the x axis is time, you get the familiar S-shaped diffusion curve. To be clear, incremental theory has long predicted an S-shaped curve for all types of policies, where the takeoff point—the point at which a large number of potential adopters adopt the policy in a fairly short period of time—occurs many years after the

[19] That is, for every policy the Y axis is the percentage of possible adoptions, or 0 to 100 percent of 50 possible adoptions, and the X axis is percentage of the diffusion period elapsed, or 0 to 100 percent of 30 years.

first adoption. But recently scholars have found evidence of r-shaped diffusion curves, where the takeoff point is immediate. This in turn has led them to broadly associate S-shaped diffusion curves with regulatory policies, which are technically complex and not salient to the public, and to associate r-shaped curves with morality policies, which are technically simple and are salient to the public. In short, in the S curve, we have slow early adoption with later takeoff, and in the r curve, we have rapid early adoption, or immediate takeoff. (I use capital S and lower-case r intentionally, as that's what the curves look like.)

I said earlier that scholars have broadly associated S-shaped curves with regulatory policy and r-shaped curves with morality policy, but they have also found these associations do not always hold. They are broad-brush characterizations. Curve analysis does not serve as the sole test that establishes a policy's type—if I were to make such a claim, it would be rather immodest, as this is the elusive holy grail of the entire typology literature. What I do claim is that curve analysis combined with another confirmatory step, such as the case studies I employed in Chapter 3, can more reliably establish a policy's type than the simple arbitrary declarations of type I showed in Chapter 3 to be inappropriate.

Recent research in policy diffusion points to policy characteristics as the key explanatory variable in diffusion speed (Boushey, 2010; Eshbaugh-Soha, 2006; Mooney & Lee, 1995; Nicholson-Crotty, 2009). Diffusion speed matters on at least three levels—theoretical, practical, and scientific. It matters theoretically, because policy cases like legislative term limits and three-strikes laws put the lie to the romantic Brandeisian assumption that states are policy laboratories that can "try a novel social or economic experiment without risk to the country" (Justice Louis D. Brandeis, New State Ice Company v. Liebmann 285 U.S. 262, 1932). This is because those policies were adopted quickly in large numbers of states before the costs and benefits could be evaluated (Boushey, 2010). Diffusion speed matters practically

because this lack of cost-benefit analysis has indeed been risky for the country, as term limits have increased the power of the executive branch over legislative outcomes (Carey, Niemi, Powell & Moncrief, 2006) and three-strikes laws increase homicide rates (Marvell & Moody, 2001). Diffusion speed's third level of importance is scientific. When we finally know enough about policy characteristics to be able to use our knowledge in predicting a novel policy's diffusion speed before the fact, we will have reached an important milestone in the longed-for graduation of the policy sciences into actual science.

A quotation from Boushey (2010, p. 18) neatly summarizes the literature reviewed in previous chapters on morality and regulatory policy, and sets expectations for testing in this chapter:

> If elevated issue salience and diminished issue complexity are connected to rates of diffusion, morality policies should be especially prone to policy outbreaks. On the other hand, state regulatory policy—a policy form typified by high technical complexity and low salience—should conform closely to incremental patterns of policy diffusion, as this class of policies rarely engages mass political attention.

By policy outbreaks, Boushey means r-shaped curves. By incremental patterns of policy diffusion, Boushey means S-shaped curves. The S curve comes from the internal influence diffusion model expressed by Mahajan and Peterson (1985) as

$$N(t) = \frac{\bar{N}}{1 + \frac{(\bar{N} - N_0)}{N_0} \exp[-b\bar{N}(t - t_0)]}$$

In this equation *b* is the rate of internal influence, and changing b changes the slope of the S curve. Because no large comparative studies of diffusion speed that report the individual policies' diffusion speeds have been done,[20] we do not have estimates of what *b* should be for different groups of policies. This is information that will accumulate over time

[20] Boushey (2010) analyzes, but does not report individually, the diffusion speeds of 133 policies. Based on a personal communication with the author, I suspect a paper reporting individual diffusion speeds is forthcoming.

as policy study becomes more scientific; the absence of diffusion slope figures is similar to the absence elsewhere in political science of consistent effect-size reporting, which would be useful (if it existed) for the kinds of a priori power analyses necessary to design experiments with significant power to deliver statistically significant comparisons. Lacking guidance on the proper setting for *b*, I simply set it to emulate the example given in the most recent study of diffusion curves (Boushey, 2010), which has about an 80% adoption rate once 50% of the adoption period has elapsed.

The r curve comes from the external influence diffusion model expressed by Mahajan and Peterson (1985) as

$$N(t) = \overline{N}[1 - \exp(-\mathrm{at})]$$

In this equation *a* represents the rate of external influence, and changing *a* has the same slope-changing effect as previously discussed with the S curve. Also, again lacking guidance on the proper setting for *a*, I simply set it according to the r curve example in Boushey 2010, which has about an 80% adoption rate once 25% of the adoption period has elapsed.[21]

Both Jones and Baumgartner and Boushey promote visual analysis of diffusion curves. Jones and Baumgartner are especially vehement about it (2005, p. 123, emphasis added):

> Any time we observe a non-normal distribution of policy change, we must conclude that incrementalism cannot have caused it; some other process must have created it. So *distributional analyses can be used to study processes; indeed, they should become central to future tests of policy processes* since they allow clear distinctions among competing hypotheses, and clear generalizations beyond one policy area at a time, which is not the case in traditional time-series approaches.

[21] In other words, the *theoretical* r and S curves I employ are set to the slope of the *empirical* r and S curves in Boushey 2010. This is the best I can do, given that the empirical curves are averages of the diffusion curves of many different morality and regulatory policies analyzed by Boushey.

Past findings in curve analysis

Curve analysis is an increasingly popular way to analyze policy innovations, and a key question in this literature has been why there would be rapid adoption for certain policies, when the assumption in the diffusion literature has been of gradual policy learning by boundedly rational actors who want to minimize costs and maximize benefits. Nicholson-Crotty (2009) thinks it may be because of re-election-minded politicians seeking short-term electoral gains through legislation like gay-marriage bans and three strikes laws whose benefits and costs they don't even bother investigating. Indeed, these latter policies are low in complexity and high in salience, making them good candidates for fueling short-term popularity gains among the mass public.

Several scholars have recently shown not all policies diffuse at the same rate, and some have even pinned the cause on policy characteristics. Boushey (2010) found death penalty and Amber Alert policy adoptions have steep diffusion curves, while state lotteries and charter school have much more shallow curves—and in the case of state lotteries, almost a linear curve. In his study, six of the policies that have the steepest curves (quickest adoption) are anti-crime policies. Their curves are almost always of the less-common lower-case r shape.

Eshbaugh-Soha (2006) argued complexity and salience are key explanatory factors in a wide variety of policies, and Nicholson-Crotty (2009) argues they are determinative across all policies, finding the highest probability of r-shaped rapid diffusion in high-salience, low-complexity policies. While there has been a recent renaissance in curve analysis, such investigations began with Mooney and Lee (1995), who found no difference in the diffusion patterns of abortion reform policies and non-morality policies, but then in a 1999 study of death penalty legislation—also morality policies—they found different diffusion patterns

based on policy characteristics and framing by vectors (policy entrepreneurs and interest groups).

Research Questions and Design

My three aims in this chapter translate into three research questions. The first question is, "Do policy type classifications in the literature stand up to confirmation with diffusion curve analysis?" In posing this first question, I pursue my aim of replicating and confirming past policy type classifications. To answer this question, I present comparisons of the empirical diffusion curves for 10 policies with theoretical r-shaped and S-shaped diffusion curves to facilitate quick visual evaluation of whether the particular policy looks more regulatory or morality in its diffusion. I generate the theoretical r- and S-shaped curves using the Mahajan and Peterson equations cited above, and set the slopes of the curves using Boushey's example cited above.

The curve-based policy type comparison I employ generates intuitive expectations and intuitive results. Anyone can see whether expected results attain. No sophisticated statistical knowledge is needed, although if one wants to get complex, one could go Boushey's route and use Anderson-Darling tests of normality and kurtosis scores to find out exactly how far a certain policy's curve deviates from the expected normal distribution. (An S-shaped curve is a normal distribution of adoption times.)

The comparisons I present are dependent on the adoption period selected—the adoption period, in years, must be the same for all comparisons, so the X axis is the same for all the graphs. There are no average times to adoption reported in the literature, and no publicly available datasets from which average adoption times for the 1960 to present mass

communications era could be calculated.[22] So I use the best estimate I have: Boushey's (2010, p. 59) Figure 2.12, which shows that for 53 policies in the 1960 to 2006 period, there was a 90% probability of adoption by the 30th year. So for each figure, I start at the year of first adoption and go 30 years into the future.

My second research question is, "Does the regulatory policy classification of infertility insurance mandates stand up to confirmation with diffusion curve analysis?" This research question serves my second aim for this chapter, that of verifying the regulatory policy type classification I made for infertility insurance mandates in Chapter 3.

My third research question is, "What contributions can diffusion curve analysis make to future policy research?" This question represents the third aim of the chapter, which gets accomplished as I show in my analyses that there are policies with similar diffusion speeds that can be grouped together, and then suggest at the end of the chapter what can be done with such groupings.

Data

I analyze a total of 10 policy cases. The first eight are policy cases where external judgments have already been made on the policy type. Smith (2002) used a survey and cluster analysis to type policies as non-morality or morality, while Boushey (2010) employed three coders to type policies as regulatory or morality. From Smith's non-morality policies, I use "term limits," specifically employing legislative term limits data from the National Conference of State Legislatures, and "allowing tax deductions for interest payments on car loans," substituting the readily available data on automotive lemon laws found in Savage 1984.

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[22] There are only two shared policy datasets available in all of political science: Walker's (1969), and the Policy Agendas Project. Walker's data are fairly useless because the policies studied diffused in the pre-1960s communications revolution period, before communications improvements made interstate communication about policy ideas much more rapid (Boushey, 2010). The Policy Agendas Project, meanwhile, contains only federal policy-adoption data, which makes the dataset mostly unsuitable for state-level diffusion study. (It is slightly useful in that it can provide some independent variables relating to the policy environment.)

From Smith's morality policies, I use "outlawing abortion," specifically the partial-birth abortion bans covered in Rurka 1999. These are bans on the late-term abortion procedure medically known as dilation and extraction. I also use "legalizing same-sex marriage," employing data from the National Conference of State Legislatures (2010); and "making access to health care a right of all citizens."

In this latter case, I substitute four policies Boushey typed as regulatory. I do this because I'm looking for a match to the health care policy topic of infertility insurance mandates, and because Smith's process just narrowly placed health care access in the morality column. The four policies from Boushey's regulatory list are guaranteed issue health insurance, guaranteed renewal health insurance, health insurance portability, and preexisting condition limits. The data source for all four is Stream 1999. These four health insurance policies are part of a group of small-group insurance market reforms designed to improve insurance coverage availability for small-firm employees. Guaranteed issue policy requires insurers to cover any small employee group that applies for insurance. Guaranteed renewal requires insurers to renew the existing policies of small groups. Portability policy requires coverage that is "continuous and portable, even when an individual changes jobs or the employer changes insurers" (Stream, 1999, p. 503). Preexisting condition limits require that "waiting periods for preexisting conditions will be short, occur only once, and be based only on recent medical history" (Stream, 1999, p. 503).

I also analyze two policies where no policy type classifications exist in the literature. The first is medical savings accounts, which I chose because I am especially interested in seeing whether health care policies share similar diffusion speeds. Data on medical savings accounts come from Bowen 2005. These are generally savings accounts combined with a catastrophic health insurance policy. Insured people and their employers can make deposits into

the account periodically and withdraw them each year for medical expenses. If expenses that year exceed the plan's deductible, the catastrophic insurance kicks in to pay the difference (Bowen, 2005). The second policy is of course infertility insurance mandates, and the data come from Chapter 3.

Analysis

I begin the analysis with the group of policies most of interest to me, health insurance. Smith classified health insurance policy as morality, meaning we should expect the more rapid diffusion represented by the r curve. Boushey made an opposite classification, typing guaranteed issue, guaranteed renewal, preexisting condition limits, and portability all as regulatory. In Chapter 3, I classified infertility insurance mandates as regulatory. For medical savings accounts, there is no independent classification in the literature. Recall also Leichter's (1997) suggestion, referenced in Chapter 3, that health care policy has moral aspects. In sum, the literature and my Chapter 3 findings provide conflicting expectations for the diffusion speed of health care policy.

Examining the diffusion curves, we find the four policies Boushey classified as regulatory are much closer to the r curve typical of morality policy diffusions than to the S curve typical of regulatory policy diffusions. Guaranteed renewal (Figure 4.1) has the quickest takeoff, with one adoption in 1990, 16 more in 1991, 15 more in 1992, eight more in 1993, three more in 1994, and two more in 1995. Portability (Figure 4.2) is second quickest, with one adoption in 1990, nine more in 1991, 15 more in 1992, 12 more in 1993, four more in 1994, two more in 1995. Guaranteed issue (Figure 4.3) has one adoption in 1990, then four more in 1991, 16 more in 1992, eight more in 1993, and seven more in 1994. Preexisting condition limitations (Figure 4.4) feature one adoption in 1990, five more in 1991, 15 more in 1992, 12 more in 1993, and six more in 1994.

We further see these four policies have quite similar diffusion curves, suggesting they have common policy characteristics to which lawmakers were attending. I suggest the common characteristic is the policy target: small employers, which are positively socially constructed and seen as deserving of policy benefits. The individual policies also are fairly simple, dealing as they each do with narrow aspects of insurance regulation. One further thing to notice is that for three of the policies—guaranteed renewal, portability, and preexisting condition limits—the empirical diffusion curves are steeper (meaning faster diffusion) than the theoretical r curve. Of the conflicting classifications in the literature, Smith's and Leichter's appear correct, while Boushey's appear incorrect; these four health insurance policies, in their diffusion speed, appear closer to morality policy than to regulatory policy.

We might expect two more health insurance policies to have similarly shaped diffusion curves, but when examining infertility insurance mandates and medical savings accounts, we find this is not the case. Infertility insurance mandates (Figure 4.5) are as far from quick uptake as one could imagine. The adoption curve remains flat from 1977, when West Virginia adopted, to 1985, when Maryland adopted. However, after Maryland's action, adoptions rose by 11 in the space of six years, then tapered off to just two adoptions between 1991 and 2001. So what we have is a long period of stasis, followed by a punctuation, followed by a long period of stasis. This confirms to some extent my findings in Chapter 3, which led me to classify infertility insurance mandates as regulatory policy. I say "to some extent" because the diffusion curve is very clearly not r-shaped, suggesting morality policy. But it is also far too flat to be a good match for the S shape that suggests regulatory policy. Clearly, more study is needed of the long periods of policy stasis in the infertility insurance mandates case.

As for medical savings accounts (Figure 4.6), they are literally somewhere in the middle. The steepness of the curve fits the r curve better than the S curve, but medical savings accounts did not have a quick enough initial uptake to be as good a match for the r curve as did the four health insurance policies discussed at the beginning of this section. It may be that a different policy target is at play here—individuals. In an American political environment where Republicans argue from the position of individual responsibility and Democrats see individual responsibility as a code word for removing the social safety net, it may be that arguments over a policy targeted at individual health care consumers took longer to resolve than arguments over the four other health care policies considered here, which targeted small employers. Examination of legislative debate records would help support this hypothesis.

I turn next to the policies that have nothing to do with health insurance: lemon laws, the partial-birth abortion ban, legislative term limits, and legalized same-sex marriage. Lemon laws regulate the repair and replacement of new automobiles which, when the consumer purchases them, are found to be "lemons"; i.e., needing massive repairs. Lemon laws could be in roughly the same class of automotive policy as Smith's "allowing tax deductions for interest payments on car loans," which Smith's analysis placed in the non-morality type. Boushey, meanwhile, classified lemon laws as regulatory.

Lemon laws (Figure 4.7) feature a fairly quick takeoff, with two adoptions in 1982, 15 more in 1983, and 12 more in 1984. The diffusion curve is clearly r-shaped, and in fact the policy's diffusion speed slightly exceeds the r curve expectation. The classifications in the literature appear incorrect; lemon laws, in their diffusion speed, appear closer to morality policy than to regulatory policy. This makes sense, as lemon laws are technically simple and

seem as if they would be salient to the public, given that the vast majority of Americans must purchase automobiles.

Turning to partial-birth abortion bans (Figure 4.8), we find the second instance where the diffusion curve matches expectations in the literature. The ban legislation had a fairly quick uptake not quite as rapid as the theoretical r curve, but certainly far steeper in slope than the theoretical S curve. This is as expected; Smith and Boushey agree abortion policy is morality policy.

Legislative term limits (Figure 4.9) are another example, along with medical savings accounts, of middling policy that falls right between the r and S curves. Notable is the steep takeoff 10 percent into the diffusion period, followed by a much shallower curve of later diffusion. Smith classifies term limits as non-morality; these middling results do not offer us much further guidance.

The last analysis is of legalized same-sex marriage (Figure 4.10), which is the closest match to infertility insurance mandates in the shape of its curve. Very few data are available on this case, but from the pattern we see so far, there is a long period of stasis followed by a fairly steep uptake. While both Smith and Boushey rate same-sex marriage as morality policy, these diffusion speed results—because of the lack of an initial takeoff—don't allow us to comfortably agree with their conclusions. I am not saying legalized same-sex marriage policy is regulatory. I am saying instead that it is such a new policy, there are not enough data to make a diffusion curve-based assessment. (And besides, as I have stated, a curve analysis should be backed up with another typing method, such as case studies.) As with infertility insurance mandates, further study is needed.

Conclusion

In analyzing the diffusion curves of 10 policies, I looked at eight where the extant literature provides judgments on their policy type. Thus in answer to my first research question, I found that some policy type classifications in the literature *do not* stand up to confirmation with diffusion curve analysis. Specifically, I found that for four health insurance policies, and for the automotive lemon law policy, diffusion curves did not match the judgments about policy types in the literature. Only for abortion bans, term limits, and infertility insurance mandates—a minority of the analyses in this chapter—did the diffusion curves match expectations.

My findings that several existing policy classifications do not stand up to diffusion curve confirmation have both broad and narrow implications. The broad implication, for policy study as a whole, is we must be even more careful with our classifications than Boushey and Smith were in their already careful and laudable classification efforts. Multimethod confirmation of policy type should be the norm. Two good methods to employ are those I used in the infertility insurance mandates case: Qualitative study of legislative debate transcripts, along with quantitative study of the diffusion curve. But I do not claim my combination of confirmatory methods is the best; I only claim that I have provided initial evidence that some combination of two or more classification methods is better than a single-step classification.

My findings also have implications narrowly, for the epidemiological model-driven study of policy diffusion. My findings have raised new questions about one of the four key components of the epidemiological model, policy characteristics. Why did the policy type judgments existing in the literature not hold up to empirical scrutiny? It could be something wrong with the judgments, or it could be something wrong with the theoretical curves.

Let us consider the policy judgments first. Morality and regulatory policy typing in the extant literature has been based largely on complexity and salience. What if other factors are at play, such as issue fragility? In a little-noticed contribution to the literature, Savage (1985) defined issue fragility as legislators' perception of the "risk … of the potential for provocation of organized opposition." He showed cases of rapid policy diffusion of child passenger restraint mandate and automotive lemon law legislation could be explained by lawmakers' low perceptions of risk from advancing those policies (p. 118):

> Serious organized opposition to mandating child passenger restraints would be tantamount to an attack on motherhood. As for lemon-aid laws, auto manufacturers and car dealers may not be happy with them, but neither of these interests is very influential in state politics, and consumers have had enough experience with "lemons" to want relief.
>
> Issue fragility, then, is a policy characteristic worthy of future scholarly attention.

Notice how the concept itself is an object of legislators' attention, which makes it a good fit in the Jones and Baumgartner attention model I have been using throughout this dissertation. Notice also that the target populations portion of policy design theory is in view; the issue fragility concept conceives of legislators as paying attention to opposition expected from target populations advantaged and disadvantaged by a policy proposal's provisions.

Another explanation for the mismatch between independent judgments of policy type and the shape of their empirical curves could be that there is something wrong with the theoretical curves I presented in Chapter 4. As I said in that chapter, there is little guidance in the literature on what the slopes of theoretical r and S-shaped curves should be. But another factor is that, based on suggestive findings Boushey (2010) reported, the r shape may be the only comparison appropriate for the vast majority of policies. He compared five types of policy—governance, morality, regulatory, child-targeted, and professional licensing—and found that the first four types, aggregated together, diffused far more rapidly than predicted

by the theoretical S curve. All four types displayed to some extent the rapid uptake characteristic of the r-shaped curve. Only licensing policies—of such professions as beauticians, dentists, and real-estate agents—matched the S curve (almost perfectly, in fact). I call Boushey's findings suggestive, and have not placed much stock in them, because he aggregates together dozens of policies for each type comparison; I want to see the effect of any outliers on the averages before agreeing with Boushey's conclusion that the incremental diffusion assumption and its accompanying theoretical S curve are so limited in value.[23]

My second research question was, "Does the regulatory policy classification of infertility insurance mandates stand up to confirmation with diffusion curve analysis?" I was testing whether in Chapter 3 I correctly classified infertility insurance mandates by studying legislative debate about them. I was not able to answer the question conclusively because I found an odd diffusion curve that was almost linear and shallow-sloped, featuring long periods of policy stasis. It did not match either the S-shaped or r-shaped curves, but was something else I will tentatively call halted policy innovation, where diffusion practically stops for long periods of time.

In the infertility insurance mandates case, no new adoptions happen for two long stretches of the diffusion period; these stretches each constitute 30% of the 30-year period studied. An explanation may be that in cases of halted innovation like this, the vectors have simply run out of gas in trying to transmit their policy viruses to new state hosts. We know that interest groups vary in their lobbying resources and sophistication (Baumgartner and Leech, 2001; Gerber, 1999), and shop around between federal and state policy venues for the most receptive settings (Baumgartner and Jones, 1993).

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[23] Unfortunately, replication data are not publicly available for Boushey's analysis.

This hypothesis would be easy to test in the halted policy innovation at issue here, because there is just one meaningful lobbying advocate: Resolve, the national infertility association. At various times in the unusually slow diffusion of infertility insurance mandates, Resolve may have possessed insufficient lobbying resources and/or have been pursuing a national, rather than state-by-state, mandate strategy. The only way to find out would be with the qualitative research I have been advocating throughout this dissertation; specifically, interviews of past Resolve leaders.

My third research question was, "What contributions can diffusion curve analysis make to future policy research?" In asking this question I was aiming for evidence I could use to argue for employing the new and simple curve analysis method presented here as a data reduction method that can facilitate quick hypothesis generation and testing. My answer to the question I posed is that curve analysis can serve as a handy data reduction tool, letting you look for commonalities among policies that might not seem similar when just scanning a list of names. We saw that the health insurance policies all had similar curves, and were able to hypothesize this was because all four shared the same target population. We saw that infertility insurance mandates had an unusual curve marked by two long periods of policy stasis, and were able to hypothesize that advocates may have had insufficient resources to promote mandates during those periods.

What is another situation in which curve analysis would be a useful data reduction and hypothesis-generating tool? I think the first situation will come on that hoped-for day when a policy scholar becomes the first to publicly release a replication dataset containing year of adoption information for a large number of policies. Given such a treasure trove, policy scholars could:

Generate, without any *a priori* expectations, a diffusion curve for every policy in the dataset, quickly group together the similar-looking curves;
Look for other similarities among the policies; and
Propose and test hypotheses about the reasons for the similarities among the policies.

For instance, if a policy is closer to the r-shaped curve, we can assume, and then test, that it was salient to the public and technically uncomplex. (We can also justify a hypothesis that legislators treated it more as a morality than as a regulatory policy.) Better yet, if several policies have very similar curves—as four examples in this chapter do—we can make and test hypotheses about whole groups of policies. Working within the epidemiological framework I have been using, we can propose hypotheses about the interaction of the virus and the vector. For instance, we can look at diffusion curves and try to explain them by asking whether the virus was independently salient (salience is a policy characteristic) or whether vectors (such as policy entrepreneurs and lobbyists) worked to manipulate its salience.

Using diffusion curve analysis as a data reduction tool would be the policy study equivalent of what elections and public opinion scholars do every time they get hold of a new dataset: They run correlations on all the variable pairs. This method suits a less than ideal situation, where data are time consuming to assemble because there is no central source for even the most basic of diffusion data, that being the year a policy was adopted in each state. Data must usually be assembled from a mishmash of lobbying organizations and news sources. Even the leading private legislative research organization, the National Conference of State Legislatures, assembles adoption-year data for just a minority of policies. So with each policy's adoption-year data so hard to come by, it is handy to have this quick analysis tool to determine whether it is worthwhile to go on and collect additional data about an interesting policy.

Chapter 4 Figures

Figure 4.1: Health Care: Guaranteed Renewal, 1989-2019

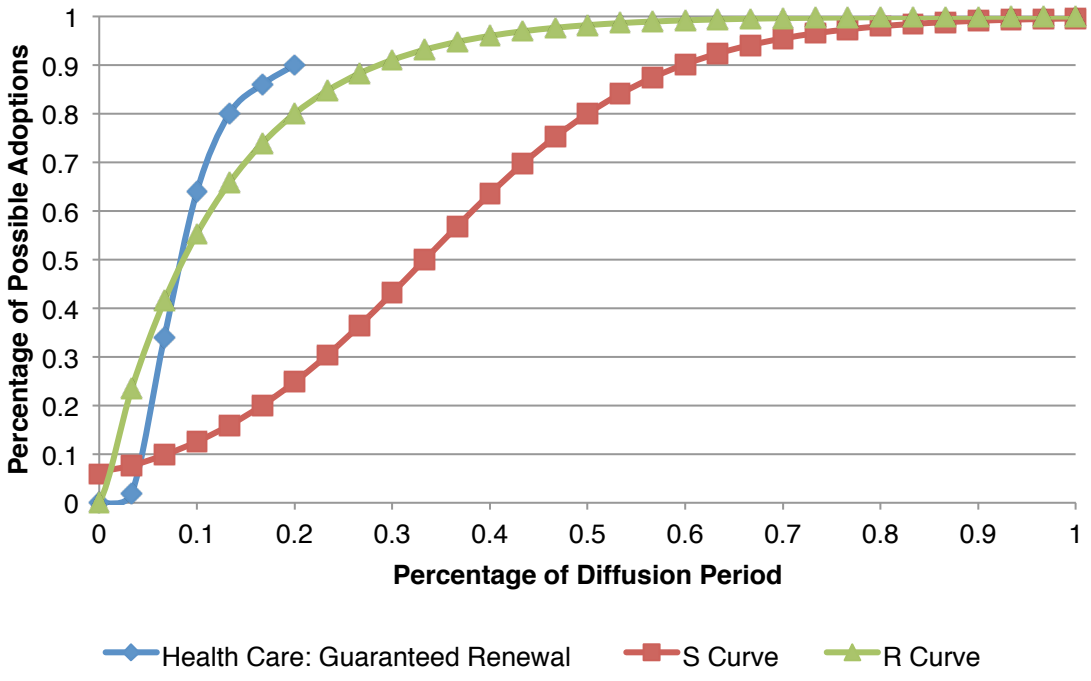


Figure 4.2: Health Care: Portability, 1989-2019

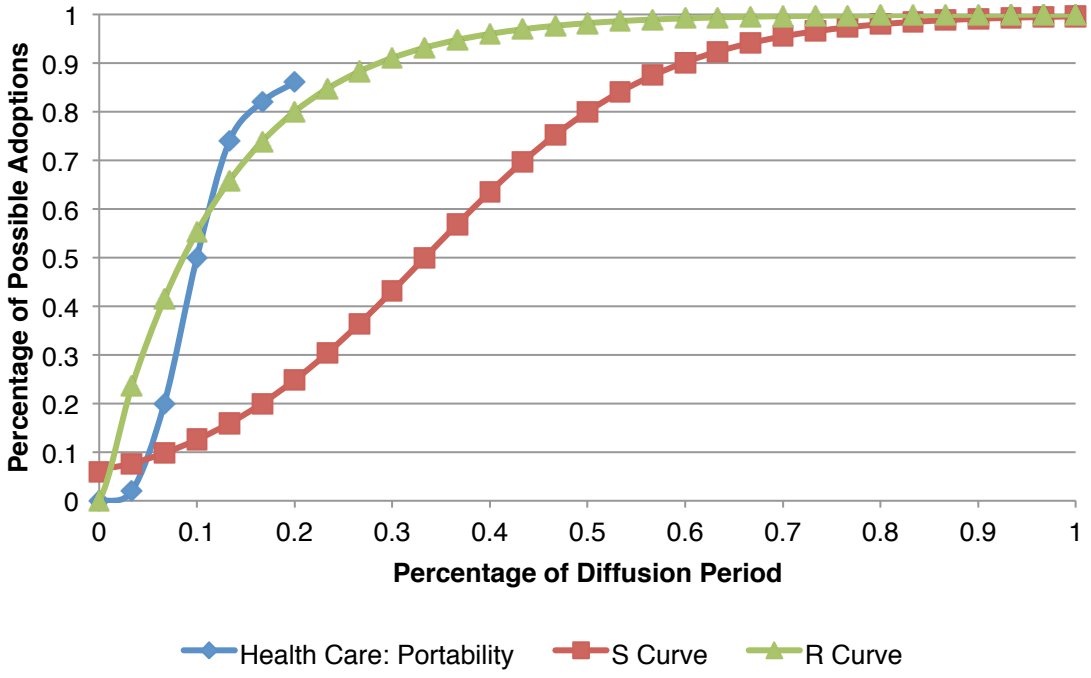


Figure 4.3: Health Care: Guaranteed Issue, 1989-2019

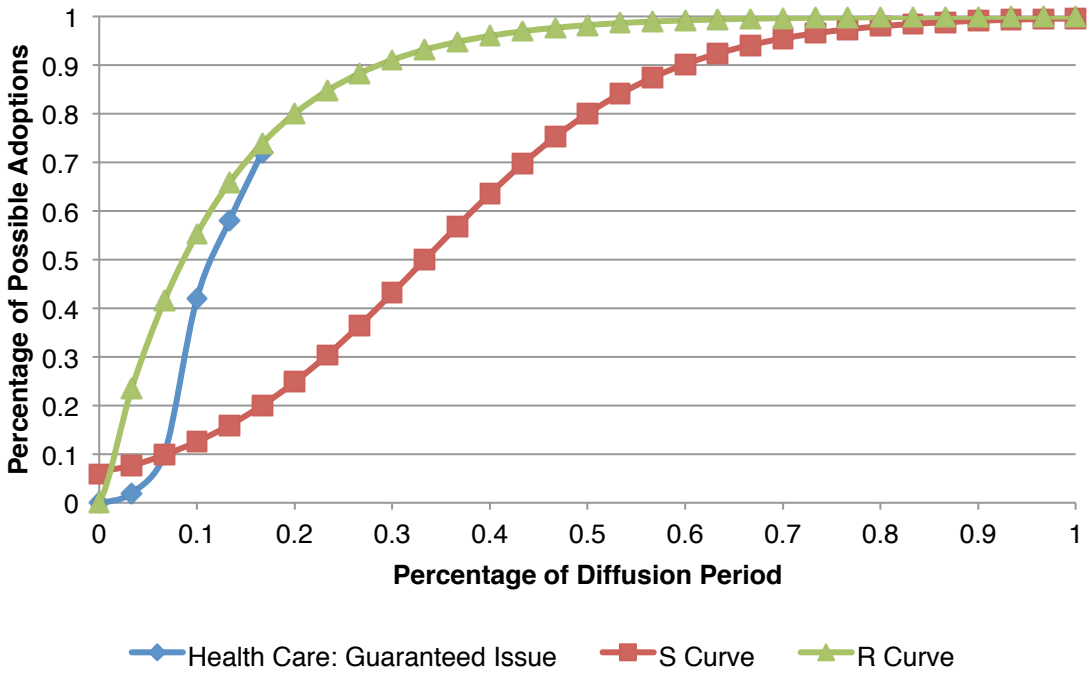


Figure 4.4: Health Care: Preexisting Condition Limits, 1989-2019

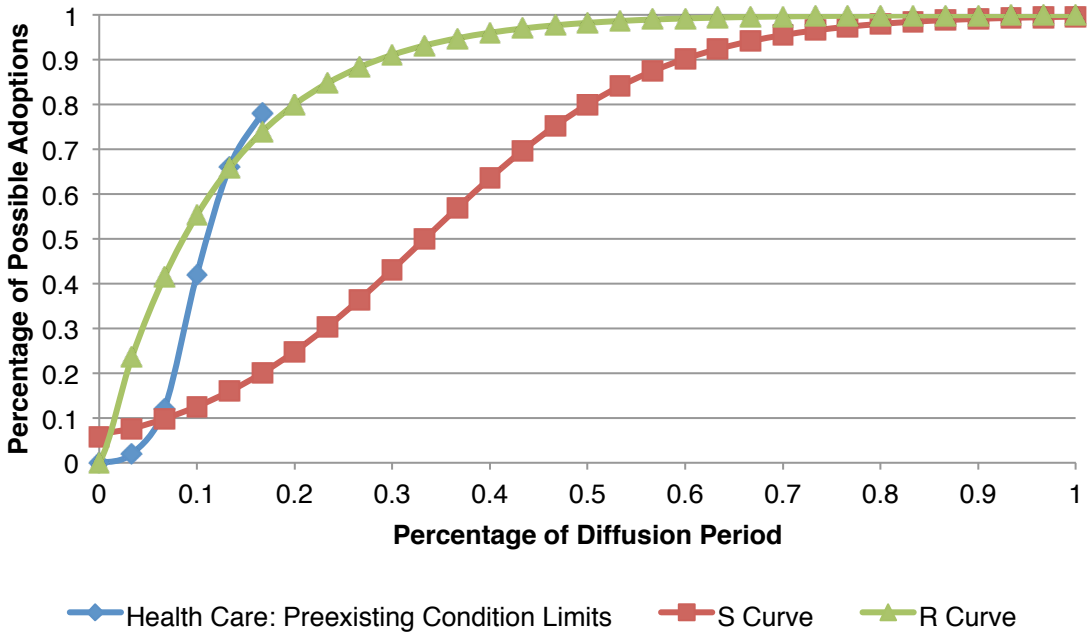


Figure 4.5: Infertility Insurance Mandates, 1976-2006

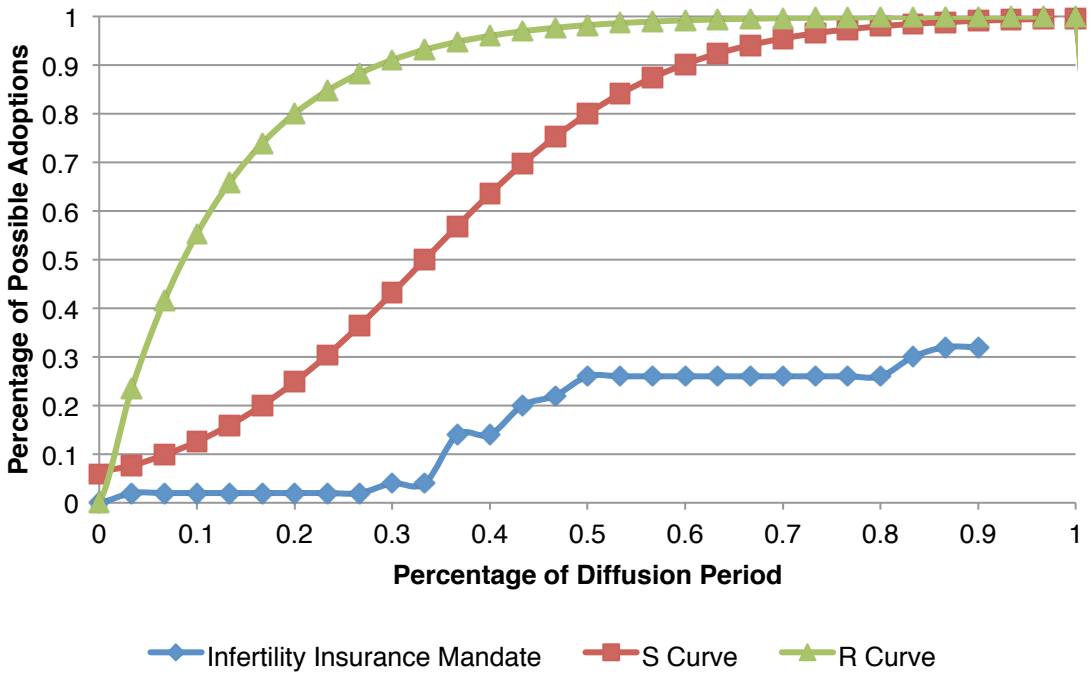


Figure 4.6: Health Care: Medical Savings Accounts, 1992-2022

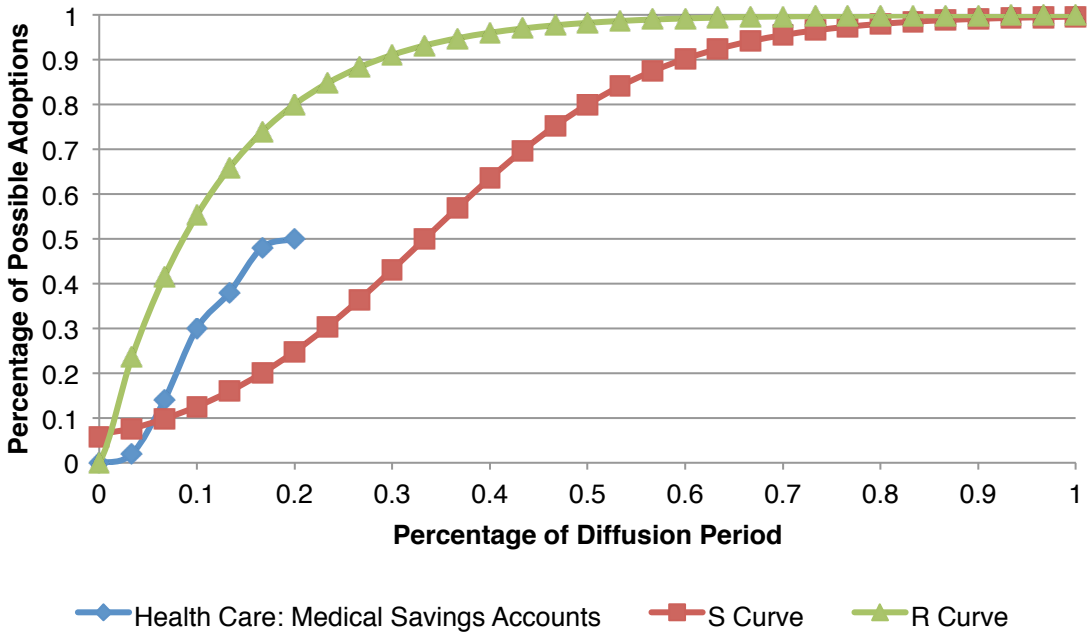


Figure 4.7: Lemon Laws, 1981-2011

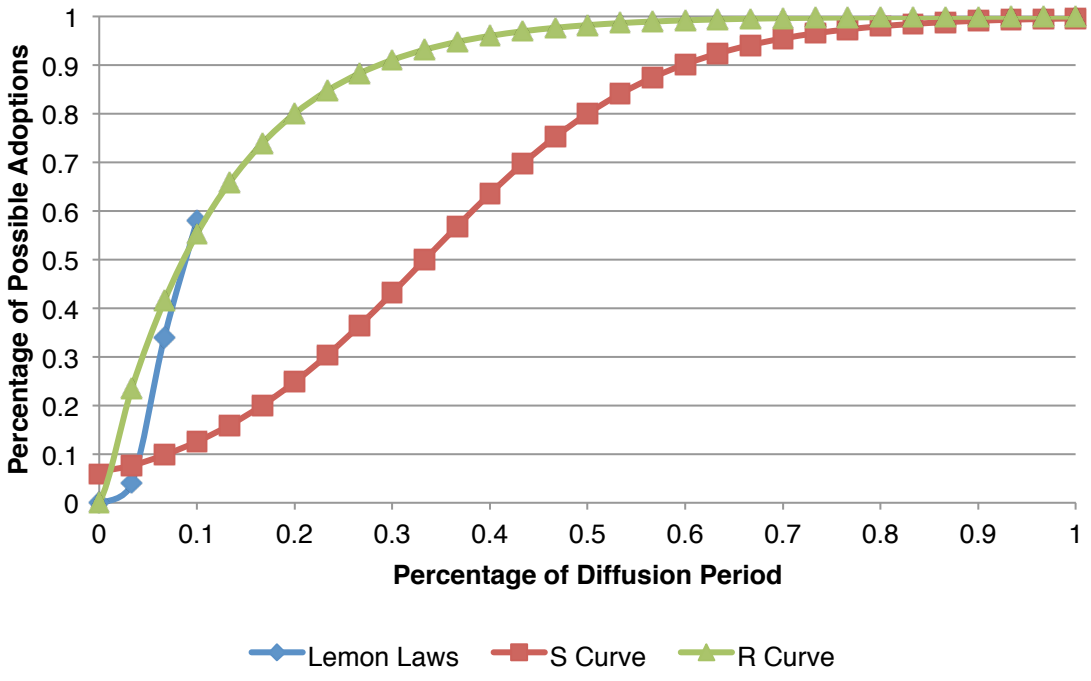


Figure 4.8: Partial-Birth Abortion Ban, 1995-2025

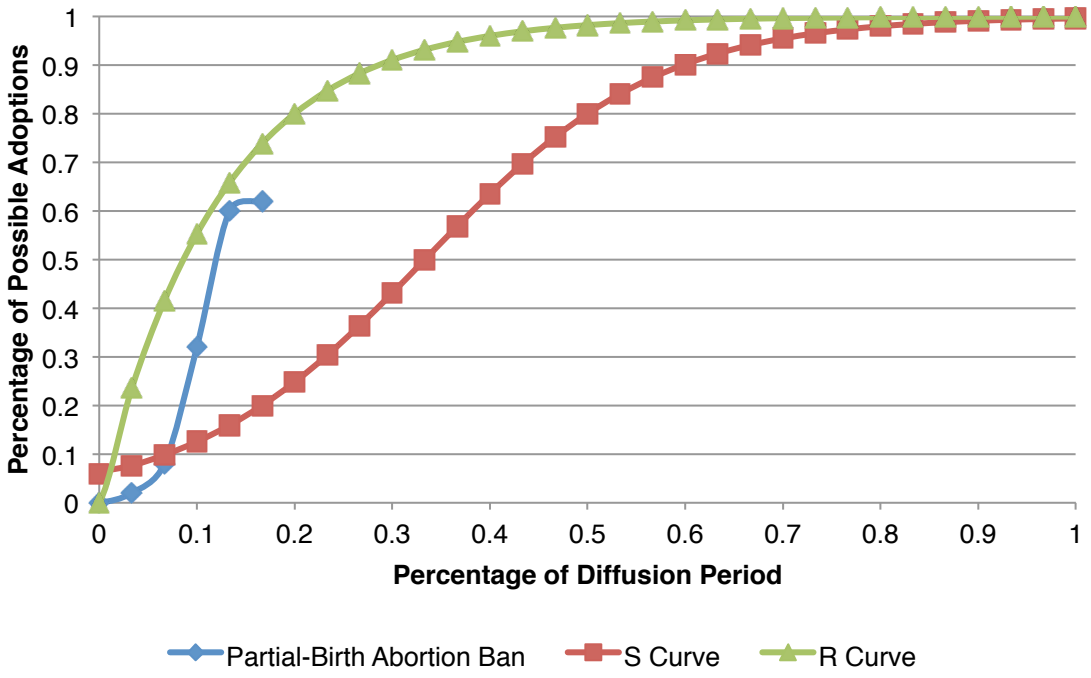


Figure 4.9: Legislative Term Limits, 1989-2019

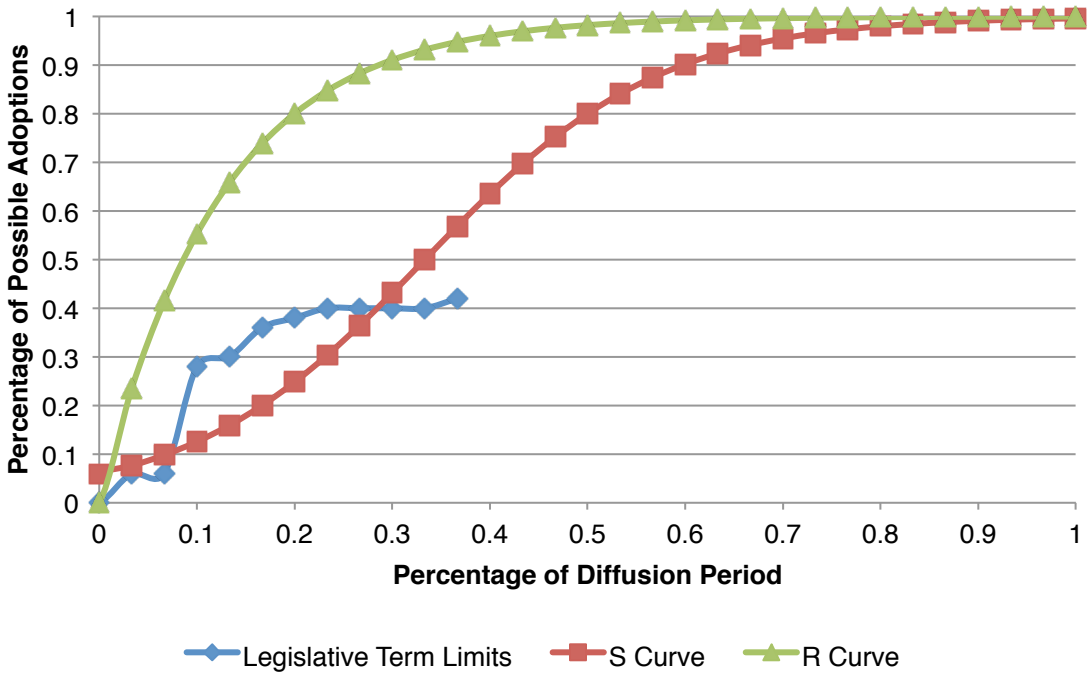
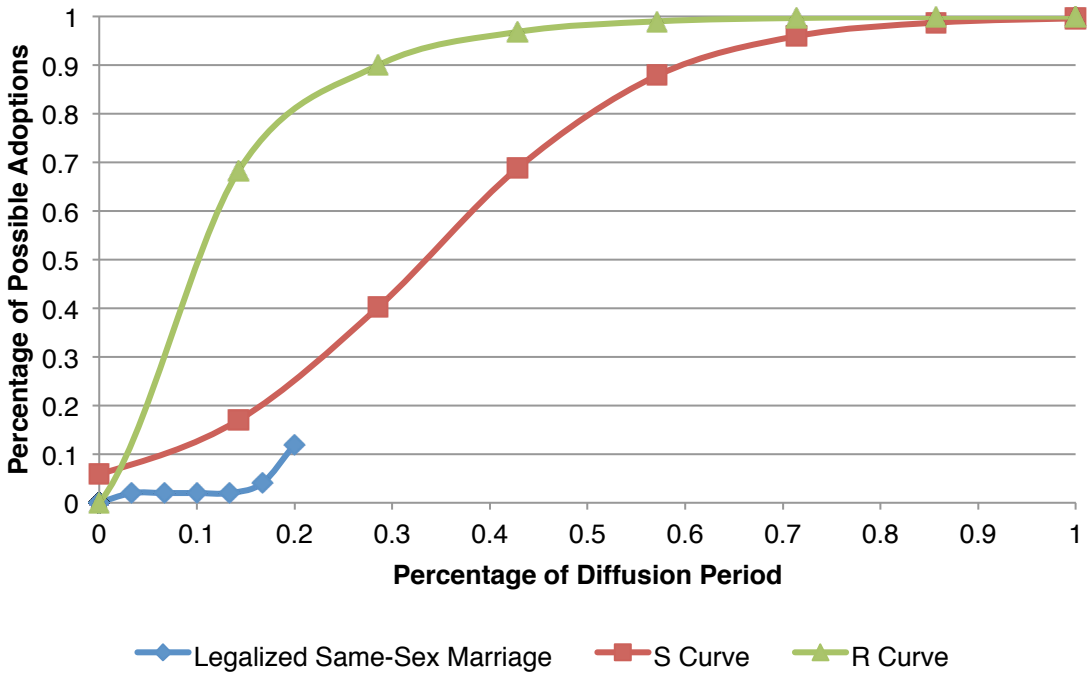


Figure 4.10: Legalized Same-Sex Marriage, 2003-2033



Chapter 5
Conclusion and Directions for Future Research

In this dissertation I have shown the benefits of attention to policy content, a factor virtually ignored by the policy diffusion literature. I have argued that the dominant conceptual model in the literature, event history analysis, has hit a dead end by focusing on a methodology that suits available data, rather than focusing on theory. To correct this misfocus while placing policy content at the center of our attention, I developed an epidemiological model of policy diffusion that conceives of policies as viruses that infect state hosts via interest group and policy entrepreneur vectors in a natural environment that offers advantages and disadvantages for viruses, hosts, and vectors.

In Chapter 1 I introduced the epidemiological model, which another scholar recently imported to political science. I argued this dissertation makes four contributions to the literature: One, it shows how we can improve our understanding of policy diffusion speed if policy content is taken seriously; two, by developing the viruses portion of the epidemiological model, it helps show the utility of that model; three, it helps make the policy sciences more scientific; and four, it makes policy diffusion research interesting and accessible to those from other disciplines.

In Chapter 2 I reviewed and synthesized the literature to show the positive implications of taking policy content seriously. I recast our understanding of fragmented literatures, such as the policy typologies and policy design literatures, and showed how they can be integrated under the epidemiological model, which is important for our discipline's internal and external health. I focused on developing the viruses portion of the model.

In Chapter 3 I explored in depth the legislative debate over infertility insurance mandates in three states. Focusing on policy type as a useful summary of policy content, I

showed that a policy case seemingly too difficult to type because of its morality and regulatory characteristics could indeed be typed as regulatory by looking at the characteristics to which legislators attended. In so doing I sought to correct a disturbing hybrid policy trend in the literature and provide policy type data for further testing in Chapter 4. I also generated preliminary information, useful for later investigations, on whether positively and negatively constructed target populations get discussed in legislative debate on infertility insurance mandates, and whether legislators attend to vector messages in legislative debate. All these aims revolved around developing the epidemiological model of policy diffusion discussed in Chapter 2.

In Chapter 4 I proposed an easy way to compare large sets of policies to find patterns of diffusion speed that allow us to generate hypotheses for testing. It involved comparing empirical diffusion curves to theoretical r-shaped and S-shaped curves, where the r-shaped curve represented the diffusion speed expected of morality policy, and the S-shaped curve represented the diffusion speed expected of regulatory policy. In analyzing the diffusion curves of 10 policies, I found that for a majority of the analyses, diffusion curves did not match expectations based on their policy types.

Answers to research questions

I asked seven research questions in this dissertation. Here I briefly report the answers I found.

The first research question was, "What do we learn when we take policy characteristics seriously and place them within a model that unifies the diffusion literature and study a policy case that combines two major types the literature has treated separately, morality and regulatory?" I answered the question with a critical review that reevaluated, reframed and creatively integrated several aspects of the policy literature, especially that on morality, regu-

latory and hybrid policy types and on policy design theory. I used an epidemiological model as a lens for a review and synthesis of the literature that showed the positive implications of taking policy characteristics seriously, and highlighted the epidemiological model's utility for focusing attention on policy characteristics. I showed how most policy diffusion research ignores policy characteristics, and that insights about these characteristics are isolated in the typology and design literatures. I suggested how these characteristics could be examined profitably in case-study and diffusion speed research.

The second research question was, "Is it possible to classify policies that seem hopelessly hybrid?" I asked this question because there is a troubling trend in policy research to take the easy way out and declare policies hybrids, which is going in the wrong direction if we want a more scientific policy science. I found the answer is yes. Overall, the case studies showed that in all three states, legislators employed more regulatory arguments than morality arguments. Also, the policy characteristic that we would expect to generate morality-flavored debate—the connection between ART and abortion—in reality was discussed very little. (Oddly, in Nebraska, where IVF and other morally troublesome assisted reproductive technologies were left out of the legislation by the sponsor's design, the debate actually included more morality content, compared with Illinois and Connecticut's debate.) My case studies gave me a reasonable basis to conclude infertility insurance mandates should be classified as regulatory policy. Answering this second research question also showed researchers must not simply glance at a policy like infertility insurance mandates and make a snap judgment it is a morality policy based on the abortion connection. Researchers must look in detail at each law, as the epidemiological model's central focus on policy characteristics demands.

The third research question was, "Do positively and negatively constructed target populations get discussed in legislative debate?" The scholar who brought the epidemiologi-

cal model to policy study left this as an unexplored assumption, so I explored it. I found target populations are worthwhile for examination. In the Illinois case, two positively constructed target populations were pitted against each other on the cost issue; that is, legislators debated whether the cost to families of paying for their own infertility treatment was more important than the cost to small businesses of higher insurance rates. An interesting feature of the Connecticut case was opponents' attempts to take positively constructed families and negatively construct them as special interests. In the Nebraska case, the attempt to paint negatively constructed large insurance companies as deserving of assigned burdens failed in the face of opponents' "mandates are bad, anytime, for anyone" argument.

The fourth research question was, "Do legislators attend to vector messages in legislative debate?" This is another assumption that was left unexplored when Boushey imported the epidemiological model. This exploratory question was important because it linked this dissertation's focus on the viruses portion of the epidemiological with the vector portion, which requires development in future research. The two model portions are intimately connected, because vectors should, theoretically, choose the combination of virus characteristics they judge most likely to successfully infect the host. But vectors aren't directly present in the legislative chamber, unless you consider legislators to themselves be vectors—a point worthy of exploration.

I found in two of the three cases I examined a real paucity of references to the only pro-mandate lobbying organization's central message, which is that infertility is a disease worthy of insurance coverage. In Illinois, one can say Resolve, the primary pro-mandate interest group, had success because its preferred issue definition—that infertility is a disease—was seriously in contention to be the winning definition. In Nebraska, by contrast, there was no evidence of Resolve's involvement; indeed, the Nebraska legislation's sponsor explicitly

defines infertility not as a disease in itself, but as a symptom of other diseases. Was this because Resolve did not have the resources to lobby in Nebraska? Did Resolve actually passively oppose the Nebraska legislation because the sponsor would not have agreed to the group's issue definition? I argued that additional investigation employing personal interviews was necessary to answer these questions. I recommended that when future researchers want to examine policy diffusion from the vector part of the epidemiological model, they should interview a representative of the lobbying organization to get a quick read on what to look at, and what not to bother with. I also asserted that if Resolve did not have the resources to lobby in Nebraska, that knowledge would fill for researchers a blank in Boushey's (2010) model, because Boushey looks to interest group resources (or the lack thereof) as a key explanatory variable.

The fifth research question was, "Do policy type classifications in the literature stand up to confirmation with diffusion curve analysis?" I asked this question because making the policy sciences more scientific requires the replication, confirmation, and extension I performed in answering the question. I found that some policy type classifications in the literature *did not* stand up to confirmation with diffusion curve analysis. Specifically, I found that for four health insurance policies, and for the automotive lemon law policy, diffusion curves did not match the judgments about policy types in the literature. Only for abortion bans, term limits, and infertility insurance mandates—a minority of the analyses I conducted—did the diffusion curves match expectations.

I asserted that finding several existing policy classifications did not stand up to diffusion curve confirmation had both broad and narrow implications. The broad implication, for policy study as a whole, was that we must be even more careful with our classifications than Boushey and Smith were in their already careful and laudable classification efforts. My find-

ings also had implications narrowly, for the epidemiological model-driven study of policy diffusion. My findings have raised new questions about one of the four key components of the epidemiological model, policy characteristics. In thinking about why the policy type judgments existing in the literature did not hold up to empirical scrutiny, I recommended examining issue fragility as a policy characteristic that occupies legislators' attention. As another way of explaining my findings, I suggested the theoretical curves I presented for comparison purposes could be wrong, and offered a direction for future research when a contemporary policy diffusion dataset containing large numbers of policies and their adoption dates becomes publicly available.

The sixth research question was, "Does the regulatory policy classification of infertility insurance mandates stand up to confirmation with diffusion curve analysis?" By answering this question, I practiced what I preach—that policy type classifications are important enough to take a second confirmatory step. I was testing whether in Chapter 3 I correctly classified infertility insurance mandates by studying legislative debate about them. I was not able to answer the question conclusively because I found an odd diffusion curve that was almost linear and shallow-sloped, featuring long periods of policy stasis. It did not match either the S-shaped or r-shaped curves, but was something else I tentatively called halted policy innovation, where diffusion practically stops for long periods of time. I suggested the reason might be that the vector in this case, the infertility lobbying organization Resolve, simply ran out of gas in trying to transmit its policy virus to new state hosts. I recommended testing this hypothesis with interviews of past Resolve leaders.

My seventh research question was, "What contributions can diffusion curve analysis make to future policy research?" In asking this question I was aiming for evidence I could use to argue for employing the new and simple curve analysis method, presented in Chapter

4, as a data reduction method that could facilitate quick hypothesis generation and testing. I answered the question by asserting curve analysis could serve as a handy data reduction tool, letting researchers look for commonalities among policies that might not seem similar when just scanning a list of names. In Chapter 4, the method served well to generate two hypotheses, that four health insurance policies all shared the same target population, and that infertility insurance mandate advocates may have had insufficient resources to promote mandates during two periods of halted policy innovation. I also suggested a number of ways the method could be applied when a large policy diffusion database becomes publicly available.

Implications for policy study

In this dissertation I showed existing policy diffusion research is wrong to give virtually no attention to policy content, and that the reason for this lack of interest in policy content was strongly tied to the dominant conceptual model in the literature—event history analysis, which really is less a conceptual model than a particular quantitative method. I showed diffusion research had become defined less by theory and more by a method that has been tied to the limitations of available data, which severely limited the whole literature's ability to address important questions of why governments do/do not adopt policies.

The first implication for policy study, then, is researchers now have a framework for taking policy content seriously: the epidemiological model of policy diffusion, the policy viruses portion of which I developed in this dissertation. I used the model to reframe past research on policy diffusion, showing among other things that policy characteristics have been incorrectly described as part of the policy environment and that morality and regulatory policy typologies remain quite useful as summaries of a range of policy characteristics. On that note, I showed there is no need to settle for hybrid classifications of policies; qualitative and quantitative analysis within the epidemiological model give us the tools we need to confi-

dently type even seemingly hopelessly hybrid policies like infertility insurance mandates. This, then, is the second implication of my study for policy research. I have not found the elusive holy grail of the typologies literature, but I have gotten policy research closer.

The third implication is two literatures hitherto largely ignored by diffusion researchers—policy typologies and policy design—now have an explanatory role in diffusion research. The fourth implication is a path to making the policy sciences more scientific, and the fifth contribution is an entry point for other scholars to assist political scientists with diffusion research. Several of these implications play a role in the directions for future research I suggest in the next section.

Directions for future research

I think we in the policy sciences need to get our own house in order before we can contribute to broader scientific endeavors, and I hope my dissertation has helped draw together some of the disparate threads in the policy sciences. Still, more work needs to be done.

Policy characteristics interacting with legislative debate

The approach in this dissertation lays the groundwork for addressing Mooney and Schuldt's (2008) criticism of the morality policy literature, which they say lacks necessary variation on the independent variable (morality policy) because most studies compare a morality policy to some presumably nonmorality policy. They write (p. 212): "A better test would be to observe a given political process for policies that generate various levels of conflict on basic values and compare these politics directly, keeping all other conditions as equal as possible." I have two things to say here: One, the level of conflict on basic values generated is a policy characteristic, which I have been encouraging attention to throughout this dissertation. Two, with my case studies I have shown that an a priori expectation of basic values

conflict based on policy characteristics—e.g., the abortion-implicating IVF provisions of infertility insurance mandates—may not stand up to close case-study scrutiny, which just further reinforces the need for case-study research in the policy sciences.

I would also assert that success is a policy characteristic. Scholars have long theorized that lawmakers choose successful policies for emulation, and a study of Children's Health Insurance Program policies confirmed this (Volden, 2006). But to assess lawmakers' perceptions of policy success, we need to either interview them or study what they say about the policies of interest in legislative debate.

Developing the vectors portion of the epidemiological model

In this dissertation I have developed the epidemiological model by clarifying which variables in the literature count as policy characteristics, and by integrating the policy typologies and policy design literatures with policy characteristics. When attention turns in the future to developing the vectors portion of the epidemiological model, we shall see the literature offers numerous reasons to focus on the interaction between policy characteristics and interest group and policy entrepreneur vectors. This is good for me and other advocates of the epidemiological model, which demands at a theoretical level an investigation of these interactions. Here is just a small sample of suggestions in the literature that justify developing the vectors portion of the epidemiological model:

Gerber and Teske (2000) suggest vectors can alter an issue's salience. Future research within the epidemiological model should look at this. The research would involve looking for major shifts in policy messages that originate with a lobbying organization, and examining legislative debate to see whether policymakers shift their debate to the new terms preferred by the lobbyists.

Eshbaugh-Soha suggests interaction between policy characteristics and vectors. In this quotation (2006, p. 225) he is saying a policy characteristic is influencing participation by vectors, who may then try to change the policy characteristic to draw attention to it (a advocacy strategy) or away from it (a defensive strategy).

> The salience and complexity dimensions of public policy present different incentives for political actors to participate in the policy making process. Because different policies comport differently with these dimensions, different policies will present a different set of opportunities for involvement in the policy process, influencing who will play a prominent role in its adoption or implementation and who will not.

I would add one new thought to the above suggestions from other scholars: We need to expand our conception of vectors. When you think about it, legislators can be both hosts and vectors, as it is with organisms in the natural world. For instance, the malaria-infected mosquito is both a host and a vector. The legislator as policy entrepreneur is both a host (in her attention to vector-delivered policy innovations) and a vector (in his personal advocacy for a policy innovation).

Bringing in outside scholars to aid this endeavor

Assessing the state of policy scholarship in 2004, Miller wrote, "Comparative state policy research would benefit from not only greater rapprochement with other policy-making perspectives but also greater integration with other disciplines" (p. 52). Ten years earlier, Gray wrote, "The early diffusion studies in political science paid close attention to studies in other fields, whereas contemporary political science seems to have forgotten this heritage." To take policy "science" from an endeavor periodically bemoaned for its unscientific nature (see, e.g., introductory chapters in McCool 1995 and Sabatier 2007) to actual science, we shall have to bring in other scholars to aid us directly, as well as import ideas from

their latest research. The epidemiological model I have been developing in this dissertation is an ideal vehicle for both purposes.

More qualitative research

One entry point for outside scholars is the qualitative research on legislative debate I modeled in Chapter 3 and have been calling for throughout the dissertation. Scholars have been calling for more attention to qualitative data for years. But it's hard to collect on the scale necessary for 50-state policy diffusion research. So let's make it a multidisciplinary team effort, like in the other sciences, where many authors with many specialties are common, and which is becoming increasingly common in political science, especially at my own University of Nebraska.

Law scholars would be ideal candidates for helping us; their law review articles already look in detail at legislative debate in attempting to divine legislators' intent. The epidemiological model is a succinct, easily understood framework for guiding their investigations, which should be done in cooperation with policy scholars. In this instance, we need to return to one-shot case studies, but let law scholars do the heavy lifting. Think of the value we get from the law review pieces that comprehensively analyze how one law came to be. Law scholars could provide the case histories. Political scientists could come in and fill any gaps. Let us answer, "Did legislators in state A really copy state B?" by looking at the detailed evidence law scholars have already collected. What I foresee is that policy diffusion research that takes policy characteristics seriously will begin with a meta-analysis of one-shot case studies, in the form of law review articles, from the 50 states. In cases where law review articles have not been written yet for all the states to which a policy of interest has diffused, the policy scholar has two choices: One, recruit a law scholar co-author to do the case study, which will get the law scholar two publications (the first as a single author for the law review

article, and the second as a coauthor in a policy journal); or two, do the case study on her or his own.

Yes, the qualitative research I call for is difficult and time-consuming. But so is hooking hundreds of research subjects up to a bunch of machines to track their physiological responses to political stimuli, as a certain former policy scholar I know has become fond of doing. Look how much we've achieved bringing evolutionary biology and psychology to bear in political science. To my mind, this has resolved the methodological individualism debate in political science. Biologists are contributing to our efforts in political science now, and this is only good. When we make our theories accessible to other scientists by using common terms, it's only for the good. Sure, it's a little embarrassing that we need to import help, rather than the other way around. But who cares? Let's just do good science.

Some might still balk, though, claiming data-collection impracticalities. For instance, Miller (2004, p. 41) writes:

> Although asking state officials why they adopt particular policies identifies actual regional and national contacts, obtaining this information may not be feasible for large-scale studies that track the diffusion of multiple policies over time. Because of the extensive resource and time commitments involved, this approach may be better suited to studying a single policy at a single point in time.

But event history analysis is just as data intensive, and will remain difficult for policy researchers with limited resources until we get some data sharing going (recall there are only two publicly shared policy diffusion datasets, and both are useless for contemporary state-level policy analysis). Indeed, Miller himself writes (2004, p. 42): "One drawback of pooled cross-sectional time-series designs, however, is that they tend to be data intensive, requiring annual observation on all independent variables across all states and all years."

Qualitative researchers have a virtual chasm in the literature to fill. Writes Miller (2004 p. 49):

> Few comparative state policy researchers, however, have used in-depth interviews and other qualitative data to generate, modify, or formulate theories of policy adoption for statistical evaluation in a comparative state policy context.

I'm not saying qualitative research will always be easy: "Consider, for example, the differences between the breadth and depth of public debate on a proposal to impose the death penalty on mass murderers and that on one to regulate the use of an agricultural herbicide" (Mooney and Lee 1995, p. 600). In comparing the breadth and depth of debates between a high-salience policy like the death penalty and a low-salience policy like herbicide regulation, here would be so many other factors to control for. Just imagine comparing the debates on the very same issue in two legislatures, with former Nebraska State Sen. Ernie Chambers in one and not the other. The Chambers debate would be broad and deep, even on the herbicide issue.

Further qualitative investigation, I think, is the only way to answer the new questions about policy type and diffusion speed this dissertation raised. But then, we knew that back in 1999, when Mooney and Lee wrote in a study of death-penalty policy provisions, "our findings also suggest that the distinction between morality policy and non-morality policy certainly is not objective, but resides in the issue definitions in arguments that surround a given policy debate" (p. 778). Distracted by a quantitative methodology that led us to a theoretical dead end, we didn't listen. Perhaps now, with the epidemiological model having focused our attention, we will listen.

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Appendix A

The History and Politics of Infertility Insurance Mandates

In recent years California's "Octomom" brought renewed public attention to perhaps the most notable type of infertility treatment, IVF. This is because Nadya Suleman conceived her set of octuplets using IVF, and conceived her previous six children the same way. In IVF, doctors stimulate a woman's ovaries to release far more than the usual number of eggs at once, fertilize them with sperm in a laboratory, and implant the resulting embryos in the woman's uterus. It is common practice to attempt to implant multiple embryos, because there is no guarantee a particular embryo will "take" (that is, develop into a fetus), and each IVF cycle (extraction, fertilization, and implantation) is expensive—about $10,000 to $12,000, and of course not covered by insurance in more than two-thirds of the U.S.

Suleman, who seemed ill-prepared to care for her first six children and now has 14, renewed a debate about the ethics of multiple implantations and the multiple births that can result from them. Multiple births are dangerous for the mother; dangerous for the babies; expensive on delivery at the hospital; and, with complications from premature births, expensive medically for some time. Multiple children are also, of course, expensive to raise. Women choose to risk multiple births precisely because there is no insurance for IVF, so the IVF-multiple births connection is a circular one. Hamilton and McManus (2005) find insurance mandates increase the use of assisted reproductive technology (ART), a category that includes IVF, and reduce multiple-birth risks. Yet there are few such mandates and little regulation of ART, a category that includes the IVF procedure Suleman used. Indeed, the fertility industry has been left to engage mostly in self-regulation; examples of this are the American Society for Reproductive Medicine's (ASRM) expulsion of Suleman's fertility specialist, Dr.

Michael Kamrava, from its ranks, and ASRM's adoption of stricter guidelines for embryo transfers following the Suleman incident.

Still, 15 states do mandate some form of infertility coverage, though not all cover IVF (Resolve, 2009).[24] In the United States, West Virginia was the first to offer an infertility insurance mandate, in 1977. That legislation did not include an IVF mandate. (Louise Brown, the world's first IVF baby, was born in 1978 in the United Kingdom.) Maryland was the first to require coverage for in-vitro fertilization, in 1985. The other states whose infertility insurance mandates include IVF coverage are Arkansas, Connecticut, Hawaii, Illinois, Massachusetts, New Jersey, and Texas. The states with mandates that do not include IVF coverage are California, Louisiana, Montana, New York, Ohio, and Rhode Island. The presence of infertility insurance mandates in 15 states makes for an adoption rate slightly less than the average adoption rate of health benefit mandates in general. As of 2002, on average, 19 states had adopted or significantly revised a certain health benefit mandate (Laugesen, 1997).[25]

Rhode Island's law is the broadest, covering all infertility. In Massachusetts, everything except surrogacy, reversal of voluntary sterilization and cryopreservation is included. Arkansas, Hawaii, Illinois, Maryland, Montana, Ohio and West Virginia require that some infertility benefits be included. California, Connecticut and Texas mandate only that infertility benefits be offered with each insurance policy.

Many other developed nations cover infertility treatment, including assisted reproductive technologies such as IVF, as part of their national health plans (Hughes & Giaco-

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[24] As Chapter 3 showed, Nebraska should count as a 16th mandate state, although its mandate was achieved through off-the-floor agreement, not through legislation.

[25] A key factor in mandate debates is the Employee Retirement Income Security Act (ERISA) of 1974, which exempted self-insured employers from state and federal regulation. ERISA limits the effectiveness of state health benefits mandates, because they do not affect the typically larger self-insured firms.

mini, 2001). Meanwhile in the U.S., litigants have argued in court over whether infertility is a disability worthy of recognition under the Americans with Disabilities Act (Ziesleman, 1995). The Clinton Administration's failed Health Security Act explicitly excluded IVF in its standard health benefit package (Executive Office of the President, 1993). Efforts to enact a federal infertility insurance effort have repeatedly failed; the latest such attempt was The Family Building Act of 2009, offered as HR 697 in the House of Representatives and S 1258 in the Senate. It never made it out of committee.

Opponents of insurance mandates in general, and infertility coverage mandates specifically, make economic efficiency and free-market arguments against them. They say any mandates drive up the cost of insurance and thus increase the number of uninsured people. Several studies have examined the economic efficiency of infertility insurance mandates. A 1998 study found mandated infertility coverage increased use of assisted reproductive technology but did not lead to "excessive increases in consumer cost" for infertility insurance coverage (Griffin & Panak, 1998). Other studies have found that regarding IVF specifically, mandates increase IVF usage (Hamilton & McManus, 2005; Jain et al., 2002; Reynolds et al., 2003). Evidence also indicates mandates may not increase access to or use of infertility treatments, but could instead provide windfall gains to people who would have purchased treatment anyway (Schmidt, 2007, p. 432).

The players in infertility insurance mandates are insurance companies on the anti-mandates side, and on the pro-mandates side one lobbying organization and two industry organizations. The lobbying organization is Resolve, which describes itself as "the only non-profit organization with a nationwide network mandated to promote reproductive health and to ensure equal access to all family building options for men and women experiencing infertility." The industry organizations are the American Society for Reproductive Medicine

(ASRM), which sets voluntary standards for fertility clinics; and the Society for Assisted Reproductive Technology (SART), which "promotes and advances the standards for the practice of assisted reproductive technology to the benefit of our patients, members, and society at large" (http://www.sart.org/detail.aspx?id=4283).

Infertility insurance mandates fall into the mandated benefits category of academic research, which has occurred mainly in the medicine and economics literature. For brevity's sake I mention only the closest match to the present study, Lambert and McGuire (1990), which examined adoption of two mandated benefits: minimum coverage for psychotherapy, and freedom-of-choice laws requiring psychologist services coverage. As with infertility insurance mandates, private insurance carriers have strongly opposed mental health coverage mandates. A bare majority of states (26) had adopted them by the time of Lambert and McGuire's study. Interestingly, the authors found providers, in this case psychiatrists and psychologists, had been "relatively uninvolved" (p. 171) in lobbying for mandates, and in fact had opposed them in a few states. By contrast, infertility doctors have been quite active regarding infertility insurance mandates; their trade association, the American Society for Reproductive Medicine, is a close ally of the national lobbying organization Resolve.

Infertility treatment raises several sticky issues that don't necessarily fit squarely with opposing or supporting arguments.

First, eugenics/genetic engineering:

- Scandinavian Cryobank offers sperm from Danish men enrolled in graduate school at major Scandinavian universities (Mundy, 2007, pp. 3-4)
- Sperm banks offer photos of the sperm donor from infant to adulthood so prospective parents can see how their prospective babies might look (Mundy, 2007, p. 4)
- Not all motives for using ART as genetic engineering are necessarily suspect; some parents may have genetic diseases such as cystic fibrosis, hemophilia, Tay-Sachs, or a propensity for adult-onset cancers, and want to create disease-free kids (Mundy, 2007, p. 11)

Second, public health/poverty: It's a public health issue; the poor are infertile because they don't get treatment for infections that cause infertility (Mundy, 2003).

Third, embryo storage. Human embryos are amazingly resilient; a paper describes one successful birth from an embryo that had been frozen, then thawed, then frozen again, then thawed again (Smith, Roots & Dorsett, 2005). One could ask: If this is the case, isn't this meant to be?

Appendix B

Infertility Insurance Mandate Arguments

The following sections go into detail about the arguments for and against infertility insurance mandates. I outline them here so readers can familiarize themselves with them when reading the case studies in Chapter 3. Where these arguments have been discussed in the literature, I give citations. I present the arguments in as straightforward and objective a fashion as possible. The reader should not assume my choice of wording indicates my own agreement or disagreement with a particular argument.

I categorize the arguments using Meier's (1991) criterion, where moral concerns involve fundamental values debates, and regulation involves economic concerns.

Proponents' moral arguments

Abortion

A seldom-seen argument is that ART is pro-life because it creates life.

Insurance companies are evil

This argument characterizes insurance companies as malefactors, which deny coverage for fertility treatments solely to save money. Insurance companies additionally are accused of having a malicious disregard for the physical and emotional trauma these denials cause. This argument fits best in the moral category because it often includes an undercurrent of moral outrage that insurance companies could be so heartless.

Religious

Explicit references to religion and God by proponents fall into this category. Most often, this argument arises when proponents want to provide assurance their legislation contains a conscience clause exempting religious organizations from ART provisions.

Right thing to do

A catch-all for implicit and explicit statements to the effect of, "It's simply the right thing to do."

Proponents' regulatory arguments

Adoption not a good option

Adoption is not a better option because it is expensive and time-consuming (Neumann, 1997).

Cost

IVF represents a small fraction of total health care costs (Collins, Bustillo, Visscher & Lawrence, 1995). There is a hidden cost of infertility, in that treatments that are actually for infertility but coded otherwise, may exceed the cost of providing infertility insurance in the first place. Also on the hidden cost theme, surgical procedures like fallopian tube repair that are covered by insurance for infertility treatment are as expensive as IVF, yet less effective.

Disease

First is that infertility is a disease, deserving of the same health-insurance coverage afforded other diseases. The argument over the definition goes back at least to the Carter Administration. A Carter appointee, Patricia Harris, opposed IVF research. John C. Fletcher recalled of Harris, "She said infertility was a middle-class and upper-class problem. … The official view was, and probably still is, that infertility wasn't a disease".

Equity

It is inequitable for the same insurance policy to deny infertility treatment, yet pay for the maternity expenses of women who manage to become pregnant, as well as the general childhood health expenses of the resulting children (Neumann, 1997). Government reg-

ulation is necessary to correct instances of discrimination by insurance companies against infertile people. This discrimination falls most heavily on women, some of whom don't even wish to become pregnant but are presumed to have that desire when they seek treatment for a condition or disease that has some connection with fertility.

Family-friendly

It ought to be this state's public policy to promote childbirth and parenthood.

Other states are doing it

Our state is behind the times in not adopting a policy that is successful in other states.

SES disparities

Only rich people can afford infertility treatment.

Opponents' moral arguments

Abortion

When fertility doctors attempt to implant several embryos in hopes one will successfully develop, the selective reduction of excess implanted embryos is exactly equivalent to abortion and should be banned as murder.

Infertility insurance mandates also implicate the abortion debate. Bioethicist John C. Fletcher told author Stephen Hall, "You can't really understand the present controversies until you understand how this all began with fetal research after Roe v. Wade" (Hall, 2003, p. 99). Some of the issues are that embryos left over from in-vitro fertilization are discarded, raising objections from pro-life advocates that living humans are being thrown away.

Disposition of leftover embryos

Medical research can be conducted on leftover embryos. IVF facilities routinely freeze unused embryos and ask couples to declare in advance whether they want them de-

stroyed, donated to other couples or used in research (Bonnicksen, 1989). Genetic testing of embryos before implantation can lead to selecting embryos for desirable characteristics (Neumann, 1997). Embryos created can become the subject of custody battles when couples receiving IVF treatments divorce. Eggs can be harvested from female embryos before they are discarded and donated to women whose own eggs do not function. Also, eggs could be harvested from aborted female fetuses and used to impregnate a woman.[26] This is perhaps even more troubling to pro-life advocates.

Paternity

This line of argument presumes that reproduction is only moral when a woman's husband inseminates her egg with his sperm. In-vitro fertilization and other procedures make it possible for a woman to inseminate her egg with semen other than her husband's, which is immoral.

Religion

As with the argument listed above in proponents' moral arguments, explicit references to religion and God fall into this category—this time when opponents raise them. In this case, opponents most often are asking whether the legislation contains a conscience clause exempting religious organizations from ART provisions.

Traditional families

IVF and other ART procedures allow a large number of pairings potentially objectionable to those with traditional moral views on reproduction. For such people, the most bothersome such pairings might involve gay or lesbian couples creating a baby from some combination of their own and donated gametes.

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[26] At a woman's birth, her ovaries contain all the eggs she will ever have.

ART and the trend toward higher maternal age at first childbirth are connected to the politics of feminism and the workforce (Hewlett, 2002), which might tend to bother those with conservative/traditionalistic family values who would prefer to see women focusing at early ages on childrearing rather than careers. ART makes lesbian motherhood possible—but more interesting is that it enables "co-parenting" by heterosexual women unable to find marriageable men (Mundy, 2007, p. xvii).

Opponents' regulatory arguments

Access to insurance

Insurance mandates drive up the cost of insurance, which in turn drives up the number of uninsured people as businesses stop providing coverage and/or those consumers unable to afford higher premiums drop their coverage.

Adopt instead

Infertile parents should adopt children instead of using ART. This is because besides being less expensive, and almost always successful, adoption provides homes for existing children (Neumann, 1997). This argument could also be placed in the moral category because anti-abortion advocates who oppose IVF on abortion grounds are sometimes advocates of adoption as an alternative to abortion, and because adoption is sometimes perceived as altruistic and thus morally praiseworthy.

Cost

Infertility treatments are too expensive. The cost argument nearly always focuses on the high cost of IVF procedures. When proponents argue the per-capita annual cost of mandating infertility treatment is some small figure, such as $1, opponents counter with an accumulation argument; in other words, "$1 here and $1 there with dozens of mandates, and pretty soon we're talking real money."

Disease

Infertility is a regrettable condition and its victims certainly deserve sympathy, but it is not a disease. (The point is important because if it were a disease, there would be no question it merits insurance coverage.)

Employers will suffer

Employers, especially small businesses, will pay for the mandates in increased fees from insurance companies and, consequently, will be unable to offer health insurance to their employees and/or will have to lay employees off. This is closely related to the access to insurance argument, but is distinguished by an emphasis on how difficult it is for employers to operate profitably under the weight of health insurance costs.

Equity

When opponents use the equity argument, they most often are referring to inequitable treatment of small employers, who are hurt more economically than large employers by mandate-driven health care cost increases. Indeed, sometimes they are the only ones hurt, because employers large enough to self-insure are not subject to any mandates.

Free market

This argument has two facets. One, mandates represent improper government interference with free markets, which can only make the markets less efficient. Two, mandates are unnecessary, because insurance companies offer for sale policies which cover infertility treatment, and businesses are free to purchase these policies (for probably a higher price).

Harm to parents

IVF is harmful to parents in that the chances of success are low, the cost is high, it is painful physically and psychologically, and it encourages gambling-like behavior (Hopkins, 1992).

Individual responsibility

People should be paying for their own reproductive costs, not foisting them on society.

Mandate

Mandates are bad in and of themselves. This is closely related to the free market argument, but stands by itself when opponents simply repeatedly state legislation is a mandate, without explaining (e.g. with a reference to market theory) why mandates are undesirable.

Minimizing the problem

Infertility does not harm people as much as other diseases, if at all.

Scarce resources

There are better uses for scarce societal resources, such as providing universal basic health insurance, or prenatal care for all women (Bartholet, 1994).

SES disparities

Again related to economics in the sense of socioeconomic status, one problem for advocates of infertility insurance mandates is that the people seeking infertility coverage are not representative of the general population; they are predominantly white, college-educated, and affluent (Stephen & Chandra, 2000). Additionally, such people are not those most affected by infertility; rather, infertility rates are higher among non-white and less-educated women (Bitler & Schmidt, 2006, p. 861). Mandates do not reduce racial disparities in access to infertility treatment (Bitler, 2006; Jain & Hornstein, 2005; Schmidt, 2007).

Special interest

Infertility affects a small number of people, and it is improper for government to spend limited resources helping a narrow segment of the population.

Undeserving targets

Infertility coverage for everyone means coverage for welfare recipients, who should not be offered state assistance producing children who will be additional burdens on the state.

We make mistakes

When insurance companies deny claims relating to infertility, they do it only when there is clear evidence the procedure was performed solely to correct a fertility problem, which procedures are usually specifically excluded from policies. But sometimes mistakes are made and a claim not relating to infertility is denied.

Appendix C

State Infertility Insurance Laws

Illinois Law

(215 ILCS 5/356m) (from Ch. 73, par. 968m) Sec. 356m. Infertility coverage. (a) No group policy of accident and health insurance providing coverage for more than 25 employees that provides pregnancy related benefits may be issued, amended, delivered, or renewed in this State after the effective date of this amendatory Act of 1991 unless the policy contains coverage for the diagnosis and treatment of infertility including, but not limited to, in vitro fertilization, uterine embryo lavage, embryo transfer, artificial insemination, gamete intrafallopian tube transfer, zygote intrafallopian tube transfer, and low tubal ovum transfer.

(b) The coverage required under subsection (a) is subject to the following conditions:

(1) Coverage for procedures for in vitro fertilization, gamete intrafallopian tube transfer, or zygote intrafallopian tube transfer shall be required only if:

(A) the covered individual has been unable to attain or sustain a successful pregnancy through reasonable, less costly medically appropriate infertility treatments for which coverage is available under the policy, plan, or contract;

(B) the covered individual has not undergone 4 completed oocyte retrievals, except that if a live birth follows a completed oocyte retrieval, then 2 more completed oocyte retrievals shall be covered; and

(C) the procedures are performed at medical facilities that conform to the American College of Obstetric and Gynecology guidelines for in vitro fertilization clinics or to the American Fertility Society minimal standards for programs of in vitro fertilization. (2) The procedures required to be covered under this

Section are not required to be contained in any policy or plan issued to or by a religious institution or organization or to or by an entity sponsored by a religious institution or organization that finds the procedures required to be covered under this Section to violate its religious and moral teachings and beliefs.

(c) For purpose of this Section, "infertility" means the inability to conceive after one year of unprotected sexual intercourse or the inability to sustain a successful pregnancy.

Nebraska Bill

Section 1.

(1) The Legislature finds that male or female reproductive disease processes in and of themselves are serious health matters that need to be properly diagnosed, maintained, and treated. Refusal to cover basic reproductive health care procedures is discriminatory and leaves an entire sector of society susceptible to substandard care.

(2) Notwithstanding section 44-3,131, any individual or group sickness and accident insurance policy or subscriber contract delivered, issued for delivery, or renewed in this state and any hospital, medical, or surgical expense-incurred policy, except for policies that provide coverage for a specified disease or other limited-benefit coverage, and any self-funded employee benefit plan to the extent not preempted by federal law shall not exclude coverage for reproductive health care.

(3)(a) For purposes of this section, reproductive health care means the diagnosis, maintenance, and treatment of the natural reproductive process of the human body. (b) Infertility is a symptom of an underlying disease process, therefor the procedures necessary to diagnose, maintain, or treat infertility shall be included in the definition of reproductive health care.

(c) This term does not include abortion, artificial reproductive technologies, or contraceptive devices. (4) This section applies to policies, plans, or contracts which are delivered, issued for delivery, or renewed in this state on or after the effective date of this act.

Connecticut Law

Public Act No. 05-196

AN ACT CONCERNING HEALTH INSURANCE COVERAGE FOR INFERTILITY TREATMENT AND PROCEDURES.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. (NEW) (*Effective October 1, 2005*) (a) Subject to the limitations set forth in subsection (b) of this section and except as provided in subsection (c) of this section, each individual health insurance policy providing coverage of the type specified in subdivisions (1), (2), (4), (11) and (12) of section 38a-469 of the general statutes delivered, issued for delivery, amended, renewed or continued in this state on or after October 1, 2005, shall provide coverage for the medically necessary expenses of the diagnosis and treatment of infertility, including, but not limited to, ovulation induction, intrauterine insemination, in-vitro fertilization, uterine embryo lavage, embryo transfer, gamete intra-fallopian transfer, zygote intrafallopian transfer and low tubal ovum transfer. For purposes of this section, "infertility" means the condition of a presumably healthy individual who is unable to conceive or produce conception or sustain a successful pregnancy during a one-year period.

(b) Such policy may:

(1) Limit such coverage to an individual until the date of such individual's fortieth birthday;

(2) Limit such coverage for ovulation induction to a lifetime maximum benefit of four cycles;

(3) Limit such coverage for intrauterine insemination to a lifetime maximum benefit of three cycles;

(4) Limit lifetime benefits to a maximum of two cycles, with not more than two embryo implantations per cycle, for in-vitro fertilization, gamete intra-fallopian transfer, zygote intra-fallopian transfer or low tubal ovum transfer, provided each such fertilization or transfer shall be credited toward such maximum as one cycle;

(5) Limit coverage for in-vitro fertilization, gamete intra-fallopian transfer, zygote intra-fallopian transfer and low tubal ovum transfer to those individuals who have been unable to conceive or produce conception or sustain a successful pregnancy through less expensive and medically viable infertility treatment or procedures covered under such policy. Nothing in this subdivision shall be construed to deny the coverage required by this section to any individual who foregoes a particular infertility treatment or procedure if the individual's physician determines that such treatment or procedure is likely to be unsuccessful;

(6) Require that covered infertility treatment or procedures be performed at facilities that conform to the standards and guidelines developed by the American Society of Reproductive Medicine or the Society of Reproductive Endocrinology and Infertility;

(7) Limit coverage to individuals who have maintained coverage under such policy for at least twelve months; and

(8) Require disclosure by the individual seeking such coverage to such individual's existing health insurance carrier of any previous infertility treatment or procedures for which such individual received coverage under a different health insurance policy. Such disclosure shall be made on a form and in the manner prescribed by the Insurance Commissioner.

(c) (1) Any insurance company, hospital or medical service corporation, or health care center may issue to a religious employer an individual health insurance policy that excludes coverage for methods of diagnosis and treatment of infertility that are contrary to the religious employer's bona fide religious tenets.

(2) Upon the written request of an individual who states in writing that methods of diagnosis and treatment of infertility are contrary to such individual's religious or moral beliefs, any insurance company, hospital or medical service corporation, or health care center may issue to or on behalf of the individual a policy or rider thereto that excludes coverage for such methods.

(d) Any health insurance policy issued pursuant to subsection (c) of this section shall provide written notice to each insured or prospective insured that methods of diagnosis and treatment of infertility are excluded from coverage pursuant to said subsection. Such notice shall appear, in not less than ten-point type, in the policy, application and sales brochure for such policy.

(e) As used in this section, "religious employer" means an employer that is a "qualified church-controlled organization", as defined in 26 USC 3121 or a church-affiliated organization.

Sec. 2. Section 38a-536 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2005*):

[Any insurance company, hospital service corporation or medical service corporation authorized to do the business of health insurance in this state shall offer to any individual, partnership, corporation or unincorporated association providing group hospital or medical insurance coverage for its employees a group hospital or medical service plan or contract

providing coverage for the medically necessary expenses of the diagnosis and treatment of infertility, including in-vitro fertilization procedures. **]**

(a) Subject to the limitations set forth in subsection (b) of this section and except as provided in subsection (c) of this section, each group health insurance policy providing coverage of the type specified in subdivisions (1), (2), (4), (11) and (12) of section 38a-469 delivered, issued for delivery, amended, renewed or continued in this state on or after October 1, 2005, shall provide coverage for the medically necessary expenses of the diagnosis and treatment of infertility, including, but not limited to, ovulation induction, intrauterine insemination, in-vitro fertilization, uterine embryo lavage, embryo transfer, gamete intra-fallopian transfer, zygote intra-fallopian transfer and low tubal ovum transfer. For purposes of this section, "infertility" means the condition of a presumably healthy individual who is unable to conceive or produce conception **[**, or retain a**]** or sustain a successful pregnancy during a one-year period.

(b) Such policy may:

(1) Limit such coverage to an individual until the date of such individual's fortieth birthday;

(2) Limit such coverage for ovulation induction to a lifetime maximum benefit of four cycles;

(3) Limit such coverage for intrauterine insemination to a lifetime maximum benefit of three cycles;

(4) Limit lifetime benefits to a maximum of two cycles, with not more than two embryo implantations per cycle, for in-vitro fertilization, gamete intra-fallopian transfer, zygote intra-fallopian transfer or low tubal ovum transfer, provided each such fertilization or transfer shall be credited toward such maximum as one cycle;

(5) Limit coverage for in-vitro fertilization, gamete intra-fallopian transfer, zygote intra-fallopian transfer and low tubal ovum transfer to those individuals who have been unable to conceive or produce conception or sustain a successful pregnancy through less expensive and medically viable infertility treatment or procedures covered under such policy. Nothing in this subdivision shall be construed to deny the coverage required by this section to any individual who foregoes a particular infertility treatment or procedure if the individual's physician determines that such treatment or procedure is likely to be unsuccessful;

(6) Require that covered infertility treatment or procedures be performed at facilities that conform to the standards and guidelines developed by the American Society of Reproductive Medicine or the Society of Reproductive Endocrinology and Infertility;

(7) Limit coverage to individuals who have maintained coverage under such policy for at least twelve months; and

(8) Require disclosure by the individual seeking such coverage to such individual's existing health insurance carrier of any previous infertility treatment or procedures for which such individual received coverage under a different health insurance policy. Such disclosure shall be made on a form and in the manner prescribed by the Insurance Commissioner.

(c) (1) Any insurance company, hospital or medical service corporation, or health care center may issue to a religious employer a group health insurance policy that excludes coverage for methods of diagnosis and treatment of infertility that are contrary to the religious employer's bona fide religious tenets.

(2) Upon the written request of an individual who states in writing that methods of diagnosis and treatment of infertility are contrary to such individual's religious or moral beliefs, any insurance company, hospital or medical service corporation, or health care center

may issue to or on behalf of the individual a policy or rider thereto that excludes coverage for such methods.

(d) Any health insurance policy issued pursuant to subsection (c) of this section shall provide written notice to each insured or prospective insured that methods of diagnosis and treatment of infertility are excluded from coverage pursuant to said subsection. Such notice shall appear, in not less than ten-point type, in the policy, application and sales brochure for such policy.

(e) As used in this section, "religious employer" means an employer that is a "qualified church-controlled organization", as defined in 26 USC 3121 or a church-affiliated organization.

Sec. 3. (NEW) (*Effective October 1, 2005*) (a) Any clinical practice in this state that performs in-vitro fertilization, gamete intra-fallopian transfer or zygote intra-fallopian transfer procedures that are covered by insurance shall report the following information to the Department of Public Health, not later than February first following any year such procedures were performed:

(1) The number of such procedures performed;

(2) The number of multiple births or conceptions with a breakdown of the number of births or conceptions per pregnancy;

(3) The number of procedures attempted before a successful implantation (A) per patient on average, and (B) grouped by the number of attempts required;

(4) The number of embryos implanted (A) per patient on average, and (B) grouped by the number of attempts required;

(5) The pregnancy rate (A) per patient on average, and (B) grouped by the number of attempts required; and

(6) The rates of complications.

(b) Such information shall be submitted on such forms as the department prescribes.

Approved July 1, 2005