Path Dependency and the Politics of Socialized Health Care

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Abstract Rich democracies exhibit vast cross-national and historical variation in the socialization of health care. Yet, cross-national analyses remain relatively rare in the health policy literature and health care remains relatively neglected in the welfare state literature. We analyze pooled time series models of the public share of total health spending for eighteen rich democracies from 1960 to 2010. Building on path dependency theory, we present a strategy for modeling the relationship between the initial 1960 public share and the current public share. We also examine two contrasting accounts for how the 1960 public share interacts with conventional welfare state predictors: the self-reinforcing hypothesis expecting positive feedbacks and the counteracting hypothesis expecting negative feedbacks. We demonstrate that most of the variation from 1960 to 2010 in the public share can be explained by a country's initial value in 1960. This 1960 value has a large significant effect in models of 1961–2010, and including the 1960 value alters the coefficients of conventional welfare state predictors. To investigate the mechanism whereby prior social policy influences public opinion about current social policy, we use the 2006 International Social Survey Programme (ISSP). This analysis confirms that the 1960 values predict individual preferences for government spending on health. Returning to the pooled time series, we demonstrate that the 1960 values interact significantly with several conventional welfare state predictors. Some interactions support the self-reinforcing hypothesis, while others support the counteracting hypothesis. Ultimately, this study illustrates how historical legacies of social policy exert substantial influence on the subsequent politics of social policy.

Keywords welfare state, rich democracies, public share of health spending, cross-national, path dependency

Figure 1 Public Health Spending as a Percentage of Total Health Spending in 2010

There is substantial cross-national variation in the share of total health spending that is publicly financed. Figure 1 displays this “public share” across eighteen rich democracies. In the United States, less than half of total health spending is publicly financed. By contrast, all remaining countries publicly finance at least 65 percent of total health spending. Australia, Ireland, and Switzerland all have public shares at about that level. Even more “socialized” are a diverse set of countries such as Denmark, Japan, New Zealand, Norway, Sweden, and the UK, which publicly finance over 80 percent of total health spending. Finally, for several continental European countries and Canada, the public share is near 75 percent.

The public share does not capture every difference between countries. For example, the public share does not incorporate tax expenditures subsidizing private health insurance / health care and public mandates for insurance, nor does it grasp all differences between health care regimes. Nevertheless, cross-national variation in the public share is important. We conceptualize the public share as one meaningful indicator of the “socialization” of health care, public investments in health and health care,

and the extent to which the state covers health care costs. The public share reflects policy differences in the organization of health care (Maarse 2006), and is one, while certainly not the only, key manifestation of the underlying differences in institutional regimes (e.g., national health services vs. national insurance systems) (Beckfield, Olafsdottir, and Sosnaud 2013; Wendt 2009). The size of the public share influences health care costs, shapes the organization of insurance, and affects how costs and risks are distributed across the population (Anderson et al. 2003; Jordan 2011; Laugesen and Glied 2011; Morgan and Campbell 2011; Reinhardt, Hussey, and Anderson 2004; Tuohy, Flood, and Stabile 2004; Wilkerson 2003; Wilsford 1995). Public health care is the first or second most expensive social policy in all rich democracies. A greater public share is also associated with lower infant mortality, longer life expectancy (Bambra, Fox, and Scott-Samuel 2005; Beckfield and Krieger 2009; Chung and Muntaner 2006; Navarro et al. 2006; Navarro and Shi 2001), and lower income inequality (Brady 2009; Navarro et al. 2006; Navarro and Shi 2001) (albeit with debates about causality). As illustrated by debates over US health care reform, and market-based reforms in other rich democracies (Bevan, Helderma, and Wilsford 2010; Okma et al. 2010), the public financing of health care is a major source of political contention. Indeed, perceived high government spending on health care is often invoked in public debates about national debt and deficit spending, and in calls for the retrenchment and restructuring of health care policy.

The present study investigates the sources of the cross-national and historical variation in the public share of health care spending. We analyze pooled time series data on eighteen rich democracies from 1960 to 2010. We supplement this with analyses of the 2006 International Social Survey Programme (ISSP). Our broader research question is what explains the cross-national and historical variation in the public share in rich democracies. We present a strategy for modeling the relationship between the initial 1960 values of the public share and the current public share. Building on path dependency theory, we propose the initial 1960 levels capture the historical legacy of prior health care politics and policy. We also examine two contrasting accounts for why the 1960 public share should interact with conventional welfare state predictors: the self-reinforcing hypothesis expecting positive feedbacks and the counteracting hypothesis expecting negative feedbacks. As a result, we investigate how the initial 1960 values interact with other sources to produce contemporary variation in the public share.

Past Research

The prevailing approach to studying the sources of public health care is case studies of individual countries or small-N comparisons. In 2005, for example, the *Journal of Health Politics, Policy and Law* devoted an issue to case studies of European health policy, including articles on eleven countries (e.g., Bevan and Robinson 2005; Rochaix and Wilsford 2005; and Vrangbaek and Christiansen 2005). Case studies of the United States have been especially prominent (Campbell 2011; Daschle, Greenberger, and Lambrew 2008; Jacobs and Skocpol 2012; Morgan and Campbell 2011; Quadagno 2005; Skocpol 1996; Steinmo and Watts 1995). In his classic case study, Starr (1982) documents the role of the professionalization of medicine and the corporatization of insurance for the long-term development of US health care. Among the small-N comparisons (Dutton 2007; Immergut 1992; Okma et al. 2010; Wilsford 1994; Wilsford 1995), Wilsford 1994 compares the development of health policy in France, Germany, the UK, and the United States. From this literature, one can find insightful histories of health policy for nearly all rich democracies.

This literature has clearly made valuable contributions and provides a foundation for our arguments below. However, there has been a relative shortage of cross-national analyses of the public share (Bambra, Fox, and Scott-Samuel 2005; Moran 2000; Olafsdottir and Beckfield 2011). Describing the health policy literature, in the *Journal of Health Politics, Policy and Law*, Blake and Adolino (2001: 679–80) write:

The literature is dominated by national and comparative case studies. . . . The straightforward formulation of a cross-national research problem seems so obvious that it almost defies comment. However, in the public and scholarly debate over health policy dynamics in the United States, one searches in vain for an analysis that encompasses all (or even most) advanced industrial democracies.

In the period since, quantitative cross-national analyses remain relatively rare in the health policy literature and health care remains relatively neglected in the welfare state literature.¹

1. Echoing Blake and Adolino, Hacker (2004: 693) calls health care a “blind spot” in welfare state research: “Over the past two decades, structural reform of national health policies has dominated the political agendas of advanced industrial welfare states as never before. Yet students of the welfare state—who have intensively examined the post-1970s development of other prominent realms of social policy—have devoted surprisingly little attention to these crucial disputes, leaving the field almost entirely to health policy specialists.”

This shortage of cross-national analysis is notable because the well-studied US case is quite unusual (see fig. 1). As a result, case studies focusing solely on the United States may be unable to generalize to the broader set of rich democracies (Marmor, Freeman, and Okma 2005). That the United States is unusual is often highlighted by case studies of the United States. Starr (1982: 6) writes: “Hardly anywhere have doctors been as successful as American physicians in resisting national insurance and maintaining a predominantly private and voluntary financing system.” In contrast to the United States, Starr explains (1982: 256), “In neither Germany nor even Britain was the idea of compulsory health insurance fundamentally contested when it was originally proposed.” Hacker (2002: 187) echoes: “It is not true . . . that doctors in all countries and at all times have been equally hostile to government intervention.” Indeed, the puzzle of why and how socialized medicine never happened in the United States has often been the motivating question for such case studies (Oberlander 2003; Quadagno 2005; Steinmo and Watts 1995).

It is important to acknowledge that in recent years some cross-national analyses have emerged (Jensen 2011; Jordan 2011; Kikuzawa, Olafsdottir, and Pescosolido 2008; Maarse 2006; Montanari and Nelson 2014; Wilensky 2002). A few analyze dependent variables that are similar to or related to the public share: public medical insurance coverage, per capita public health spending, or public health spending as a percent of GDP (Navarro 1989; Navarro et al. 2006; Navarro and Shi 2001; Reeves et al. 2014). For example, Blake and Adolino (2001) analyze the adoption of national health insurance programs across countries. A few others append analyses of the public share alongside traditional welfare state measures. For instance, Huber and Stephens (2001: 76, 217) evaluate whether power resources theory predicts the public share of health spending similarly to other welfare effort outcomes. Further, scholars have developed comparative typologies of health care systems with parallels to the welfare state regime literature (Bambra 2005; Beckfield, Olafsdottir, and Sosnaud 2013; Moran 2000; Wendt 2009). Despite these contributions, there are still relatively few cross-national analyses of the public share of health spending. Compared to the vast literatures on welfare effort or programs like pensions and unemployment insurance, there is a need for further research.

The shortage of cross-national research on the public share begs the question of whether conventional welfare state models can explain health care policy (Jensen 2011; Olafsdottir and Beckfield 2011). As one example, power resources theory has featured prominently in the welfare state

literature (Hicks 1999; Huber and Stephens 2001), and indeed, some link leftist parties and labor unions to public health care (Huber and Stephens 2012; Navarro 1989; Navarro et al. 2006; Navarro and Shi 2001). However, others contend that public health care does not simply follow the same political processes as other social policies (Hacker 2002). For instance, Immergut (1992: 6) stresses, “In no case did the politics of national health insurance boil down to partisan conflicts.” Though Huber and Stephens (2001: 76) find left party power is significantly associated with the public share in sixteen rich democracies 1960–1985, they find no party effects on the public share in more recent decades (Huber and Stephens 2001: 217). It is also notable that the public share is not very highly correlated with welfare effort (Bambra 2005). Across the eighteen countries in figure 1, the public share correlates only 0.47 with public social welfare expenditures and 0.35 with public and mandatory private social welfare expenditures (as a percent of GDP, Brady, Huber, and Stephens 2014). This is exemplified by the liberal UK regime, which has comparatively meager social welfare transfers, but a high public share and a national health service. Unlike most other social policies, public health spending realistically faces a ceiling as several countries are near 100 percent of total health spending (Hacker 2004). Therefore, ultimately, it remains quite uncertain if conventional welfare state models can explain the public share.

Path Dependency and the Politics of Social Policy

As a complement to conventional welfare state models, we propose the public share of health spending is heavily shaped by path dependency. At least since the 1990s, path dependency has emerged as a key concept in the politics of social policy and other literatures (Mahoney 2000; North 1990; Pierson 2004). In its most general form, path dependency simply claims the past has a powerful effect on the present. Scholars often invoke Stinchcombe’s (1968) concept of “historical causes” whereby some initial conditions generate an outcome, which is then reproduced even without the recurrence of the initial conditions. These historical legacies “lock” countries into certain trajectories and exert inertia on current politics even after a long time lag (Thelen 2004).

The literature has theorized at least six interwoven mechanisms for why social policies are likely to exhibit path dependency (Campbell 2011; Hacker 2002; Rose and Davies 1994; Skocpol 1992). First, social policies create large constituencies with an interest in maintaining programs and benefits (Korpi and Palme 1998). Second, social policies mobilize actors

and organizations, which gain resources from programs and have a vested stake in the policy. Third, social policies influence normative expectations about social equality and the role of the state in the economy and society (Brady and Bostic 2015). Fourth, social policies function as institutions that make certain subsequent policies and reforms more efficient and therefore likely to be selected and adopted. As Pierson (2004: 35) explains, “Policies, grounded in law and backed by the coercive power of the state, signal to actors what has to be done, what cannot be done, and establish many of the rewards and penalties associated with particular activities.” Fifth, largely because of the prior four, the path dependency of social policy constrains politicians from retrenching or removing programs and benefits (Brooks and Manza 2007).

Path dependency is also a strong theme in the case studies of health policy (Béland 2010; Bevan and Robinson 2005; Campbell 2011; Kikuzawa, Olafsdottir, and Pescosolido 2008; Rochaix and Wilsford 2005; Vrangbaek and Christiansen 2005; Wilsford 1994). For example, Dutton (2007) demonstrates that modern French health care policy reflects an incremental evolution from prior health care policies as well as the imprint of deeper historical origins. Starr (1982) stresses how the historical evolution of medical authority cultivated solidarity, organization, and power among medical professionals. This then enabled a stringent defense of a limited public sector, and powerful private medical and insurance industries. Starr (1982: 333) writes, “The distribution of health insurance was a direct outcome of the sort of private system that developed in America.” Immergut (1992) identifies several continuities in French, Swedish, and Swiss health care policies, and shows how political bargains and pre-existing sickness funds left their mark on subsequent health care legislation. Quadagno (2005) demonstrates how private health care in the United States created powerful stakeholders (e.g., doctors and insurers) who were well-positioned to recurrently block expansions of public health care. Hacker (2002: 61) shows how private health care/insurance drove the politics of public health care, and claims, “Each intermediate step in favor of privatized social welfare approaches increases the probability that future steps will occur in the same direction.”

Thus, where there has historically been a legacy of a high public share, constituencies, organizations, vested organizations and actors, expectations, and institutions should all work to maintain that high level. Conversely, where the historic legacy has been of a low public share, the opposite should hold. The historic legacy can be operationalized as the initial observed level of the public share in the period is analyzed. The

initial level captures the health care politics and policies that historically preceded the period analyzed. Thus, the initial level represents a starting point after health care policy has evolved up to the period studied. This leads to hypothesis 1:

H1 *Initial levels of the public share of health spending are significantly positively associated with current levels.*

While path dependency has been a very influential explanation in qualitative historical research, it has not been as widely incorporated in quantitative research. Though proponents have made clear it is amenable to quantitative applications (Pierson 2004: 172–73), few quantitative cross-national studies fully incorporate path dependency. Thus, there is a need for empirical strategies to do so (Page 2006).

One exception is recent cross-national welfare attitudes research.² Several scholars demonstrate how past social policies or institutionalized historical legacies embodied as welfare state regimes are associated with contemporary social policy attitudes (Brooks and Manza 2007; Fernandez and Jaime-Castillo 2013; Jordan 2010; Svallfors 2007). For instance, Kikuzawa et al. (2008) show that a country's health care regime significantly affects individual preferences for greater government spending on health and for government having a responsibility for health care. This literature posits mass opinion as one key mechanism in the path dependency of social policy (Brooks and Manza 2007; Campbell 2011; Fernandez and Jaime-Castillo 2013; Jordan 2010; Morgan and Campbell 2011; Svallfors 2007). The argument applied here would be that prior health policy influences public opinion by creating interests and normative expectations that define what individuals expect from the state in terms of health care (Lynch and Gollust 2010). Public opinion then works to maintain current health policies and constrains public health care retrenchment. This leads to hypothesis 2:

H2 *Initial levels of public health spending are significantly positively associated with contemporary preferences for government spending on health.*

2. Another possible exception is pooled time series analyses showing the significant effect of veto points on the welfare state (e.g., Brady and Lee 2014; Huber and Stephens 2001). However, we would argue veto points are better understood as institutional rules constraining policy change, but not really path-dependent characteristics of the policy itself. Veto points thus might be thought of as a reason path dependency happens but not path dependency within a given social policy (Immergut 1992; Steinmo and Watts 1995; Swank 2002).

Beyond hypotheses 1–2, the initial levels of social policies have the potential to feed back into contemporary politics through two processes. The first process involves initial conditions having a *self-reinforcing* effect on the current public share (Mahoney 2000). In this process, path dependency scholars emphasize the increasing returns and positive feedback from initial conditions (Campbell 2011). Pierson (2004: 10) stresses the role of “dynamics of self-reinforcing or positive feedback processes in a political system,” and writes, “Once a particular path gets established, however, self-reinforcing processes make reversals very difficult.” According to prevailing accounts of positive feedback, initial conditions should fuel the long-term reproduction of cross-national differences. As the historical legacy legitimates and cultivates expectations and constituencies, power asymmetries and vested interests should maintain and reproduce variation across health care regimes. This leads us to posit hypothesis 3:

H3 *Initial level of public health spending will positively interact with welfare state predictors to accentuate variation.*

Partly because scholars often use path dependency to explain stable differences between countries, the majority of the path dependency literature concentrates on self-reinforcing processes and positive feedbacks (cf. Béland 2010; Pierson 2004). As Fernandez and Jaime-Castillo (2013: 806) write, “The positive policy feedback framework has remained dominant in historical institutionalism.” For instance, although Huber and Stephens (2001) distinguish between two kinds of path dependency—ratchet effects (which only result in positive feedbacks) and policy legacy effects (which can have positive or negative feedbacks)—the ensuing literature has principally concentrated on positive feedbacks. Indeed, Page (2006) criticizes the path dependency literature for conflating path dependence and increasing returns and, hence, obscuring other forms of path dependence.

As a result, we also consider a second *counteractive* path dependency process. Counteractive processes involve negative feedbacks between initial conditions and the subsequent politics of social policy (Béland 2010; Fernandez and Jaime-Castillo 2013; Weaver 2010). The public share may be vulnerable to negative feedbacks as countries have “grown to limits,” facing a ceiling near 100 percent, and any reform thus requires a reduced public share (Flora 1986; Hacker 2004). Social policies often create unanticipated inefficiencies and enable political actors to frame grievances against the policy or its implementation. For example, targeted social policies (vs. universalist) tend to be unpopular, to divide the working

class, and to generate coalitions between the affluent and middle class against the working class and poor, all of which feed back into the politics of social policy (Brady and Bostic 2015; Korpi and Palme 1998). Moreover, the prevalent homogenizing pressures of budget austerity, rising health care costs, population aging, and the medicalization of disease may combine to force countries to view or frame a high public share as unsustainable (Brady and Lee 2014; Kikuzawa, Olafsdottir, and Pescosolido 2008; Kittel and Obinger 2003; Pierson 2001). Indeed, rising costs and budget pressures have been a central concern for health care policy across rich democracies (Bevan, Helderma, and Wilsford 2010; Marmor, Freeman, and Okma 2005; Reeves et al. 2014; Wilsford 1995). As Hacker (2004: 698) explains, “rapid inflation of health spending was usually the largest and most immediate source of budgetary strain for countries facing up to the new fiscal order.” These pressures should constrain high public share countries even more than low public share countries, partly because high public share countries approach the ceiling of 100 percent public financing, and, because health care is a larger share of government budgets in high public share countries (Beckfield, Olafsdottir, and Sosnaud 2013; Nixon 1999). Compared to low public share countries, high public share countries are more able to control costs because health care financing is more centralized and the state is relatively more powerful than private actors (Wendt 2015). All of these pressures should contribute to convergence. This leads to hypothesis 4:

H4 *Initial level of public health spending will negatively interact with welfare state predictors to produce convergence.*

Methods

The main analyses include eighteen rich democracies (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, and the United States) from 1960 to 2010 (the last year with complete data). The unit of analysis is the country-year. The proximate source for all variables is the *Comparative Welfare States Data Set* (CWS; see Brady, Huber, and Stephens 2014). We concentrate on these eighteen countries partly because of data availability, as omitted rich democracies lack consistent data prior to the 1980s (e.g., Greece, Spain, Portugal). The analyses begin in 1960 because that is the first data point available on the public share. We end in 2010 because the CWS ends then

and many independent variables are not available after that point. Our focus on rich democracies reflects widely held conventions in the welfare state literature (Brady and Lee 2014; Hicks 1999; Kittel and Obinger 2003; Svallfors 2007; Swank 2002). For instance, we follow Huber and Stephens (2001) who require that countries be economically developed, and democratic at least since World War II.

Because of data availability, the panel is slightly unbalanced resulting in 808 country-years. Descriptive statistics and sources are available in appendix A. In supplementary analyses, we examine 2006 ISSP data. We provide details below and in appendix B.

Dependent Variable

The dependent variable is the *public share of health spending*, defined as the percent of total health spending that is publicly financed. We utilize the OECD (2012) definitions of *health expenditures* and *public* and *private*. Public funds include those derived from taxation and social security plans; expenditures from federal, state, and local governments; and publicly financed/subsidized investment in health facilities. Private funds include out-of-pocket payments, private insurance, charities, and occupational health care and insurance.

Independent Variables

The key independent variable is the *1960 value* of the public share of health spending. This variable is time invariant within countries.

We begin with a conventional synthetic welfare state model. Closely following the literature, we incorporate a combination of variables including power resources, institutions, economics, and demographics (Brady and Lee 2014; Hicks 1999; Huber and Stephens 2001, 2012; Kittel and Obinger 2003; Svallfors 2007; Swank 2002). Following convention, we lag all independent variables one year. Because of this, the dependent variable is actually modeled 1961–2010. In later analyses, we include interaction effects between the 1960 value and all aforementioned independent variables.

We measure power resources with four variables. *Right cabinet* is the average percent of cabinet seats for rightist and conservative parties in the past ten years. *Left cabinet* is the same for leftist and social-democratic parties. *Unionization* is the net union membership as a percent of employees. *Voter turnout* is the percent of the electorate that voted in the most recent national election. Institutions are operationalized by the number of

constitutional *veto points*. Veto points sum measures of federalism, presidential systems, single-member district-plurality electoral systems, the strength of bicameralism, the frequency of referendums, and judicial review (Brady and Lee 2014; Huber and Stephens 2001). We also include *military spending* as percent of GDP. We adjust for five economic variables. *GDP pc* is per capita gross domestic product in real purchasing power parity dollars. *Inflation* is the annual percent change in the consumer price index. *Unemployment* is the percent of the total labor force unemployed. *Trade openness* is the sum of exports and imports over GDP. *Deindustrialization* is measured as 100 minus the percent of the labor force in manufacturing and agricultural employment. We incorporate demographics by including the share of the *population over sixty-four years old* and *net migration*, which is the difference between people leaving and entering the country divided by the overall population. *Female labor force participation* is the share of working-age women in the labor force. We also adjust for linear time with *year* (1961 = 0, 1962 = 1 . . . 2010 = 50). In other analyses, we included year fixed effects and the results were consistent.³

Analytic Strategy

Our aim is to model conventional welfare state predictors and the historic legacy or initial levels of the public share (and their interactions). To accomplish this, we need an estimation strategy that allows for a time invariant variable (the 1960 value) and addresses the within-country and over-time structure of the data.

To put our strategy in context, we first explain how we build on two conventional approaches: fixed effects (FE) and lagged dependent variable (LDV) models. A standard FE model can be estimated as:

$$Y_{it} = \beta_0 + \beta X_{it-1} + \beta C_i + \varepsilon_{it}$$

Y_{it} is the dependent variable for each country i and year t . Y_{it} is a function of a generic constant (β_0), a set of lagged country-year variables (X_{it-1}), country dummies (C_i), and a country-year error term (ε_{it}). The virtues of the FE model are clear and well known. The country dummies control for unobserved time-invariant differences between countries. The model differences each observation from the country-specific mean for each variable, which focuses the analyses on within-country over-time

3. For instance, in table 1, model 3, the 1960 value would have a slightly larger coefficient and remain highly significantly positive ($z = 10.97$).

variation. For our purposes, the FE model has the problem of prohibiting time invariant variables (e.g., the 1960 value) and it is not really feasible to interact the country dummies and independent variables (X_{it-1} and C_i). Also, the FE model is not well suited to the estimation of theoretically salient variables that do not vary much over time (e.g., veto points). Moreover, the country dummies have no theoretical content and thus cannot offer any explanation for why countries differ.

A standard LDV model can be expressed as:

$$Y_{it} = \beta_0 + \beta Y_{it-1} + \beta X_{it-1} + \varepsilon_{it}$$

This model differs from the FE model by including a lagged value of the dependent variable (Y_{it-1}) as a right-hand side variable, while it does not require country dummies (though one can also include country dummies). This model controls for past values of Y and allows time-invariant variables. However, this approach only allows the other independent variables (X_{it-1}) to explain the residual short-term change in the dependent variable, and may be biased by strong correlations between Y_{it-1} and X_{it-1} or strong autocorrelation. Moreover, Y_{it-1} typically does not have any more theoretical content than country dummies.

Our approach builds on FE and LDV models, while addressing their limitations in pursuing our aims. Our approach can be expressed as:

$$Y_{it} = \beta_0 + \beta Y_{1960} + \beta X_{it-1} + \varepsilon_{it}$$

Y_{1960} is the country-specific, time-invariant value of Y in 1960. This is the first observed value of Y , and our approach can be called an “initial conditions” model. This is similar to how scholars often control for the baseline value of the dependent variable while using panel models. Like the FE model, our approach controls for a key time-invariant difference between countries. Like LDV models, our approach adjusts for a lagged value of Y . However, unlike FE and LDV models, Y_{1960} has theoretical content as it measures the historical and political-economic factors that shaped a country’s “initial conditions” of the public share in 1960. Moreover, our approach allows for time-invariant and relatively stable variables like veto points. Further, our approach enables a more clear interpretation of interactions between Y_{1960} and X_{it-1} than an FE model.

To be clear, we do not claim the 1960 value is a “critical juncture.” To model the critical juncture, one could model Y_i at a theoretically salient

time point (e.g., the Great Depression). We do not do so, partly because 1960 is the first data point available for this sample. While the initial 1960 levels capture the historical legacy of prior health care politics and policy up to the period of study, its sources are beyond the scope of the present study.

Our approach is also influenced by techniques to address state dependence (Esarey and DeMeritt 2014; Page 2006). Those techniques often build on LDV models by including Y_{it-1} and interactions between Y_{it-1} and X_{it-1} . Our approach is quite similar (see esp. Esarey and DeMeritt 2014). The key distinction is that we measure Y at the fixed point in time of the first year (Y_{1960}). By doing so, we conceptualize countries as differing based on observed initial conditions rather than Y_{it-1} or some state dependence.⁴

We appreciate there still could be concerns that Y_{1960} is highly correlated with Y_{it-1} . Therefore, we conduct sensitivity analyses adjusting for Y_{it-1} —combining our approach and an LDV model. There could also be concern that Y_{1960} conflates “initial conditions” and unobserved time-invariant country characteristics. While we cannot incorporate country FEs, we conduct sensitivity analyses adjusting for the country-specific mean of the dependent variable ($\bar{Y}_i$), which approximates country-fixed effects (i.e., since an FE model differences Y_{it} from $\bar{Y}_i$). If there is a robust significant association between Y_{it} and Y_{1960} net of Y_{it-1} or $\bar{Y}_i$, this should increase confidence in the results.

Finally, all models use panel-corrected standard errors (OLS-PCSE) and a first-order autocorrelation correction. As robustness checks, we estimated three alternatives: first-differencing all variables (except the 1960 value); an error-correction model; and, a random effects model with a first-order autocorrelation correction. In all three, the 1960 value remained significant. The results were also consistent when dropping one country or one year at a time.⁵ All these sensitivity analyses are available upon request.⁶

4. Of course, the sources of the observed initial conditions in 1960 could be due to some state dependence. However, as we treat the 1960 initial conditions as given, it is beyond the scope of the present study to identify the sources of the 1960 value.

5. For example, if we omit the relatively outlying United States, the 1960 value remains significantly positive across table 1 ($p < .001$).

6. Our approach has similarities to Page’s (2006: 104): “A process is early path-dependent if the outcome in any subsequent period depends only upon the history up to some period T .” Our approach is also similar to Jackson and Kollman’s (2012) “sticky” process. However, our approach does not investigate their “stringent” (Jackson and Kollman 2012) definitions of path dependence. For example, we do not evaluate Page’s distinction between “phat” and path dependency. Also, we cannot evaluate Jackson and Kollman’s (2012) “precise and restrictive” distinction between “equilibrium-dependent” and “sticky” processes. While interesting, these strategies appear to be quite different from the core ideas in the aforementioned theories and literatures on path dependency. Jackson and Kollman (2012: 173) even conclude: “We recognize the strictness of the definition used here; it limits people to calling nearly everything we study [not path dependence].” In contrast, we aim to model the core idea of path dependency, and we would not concede that their strategies provide the only reasonable definitions of path dependency.

Figure 2 Public Share of Health Spending in Eighteen Rich Democracies, 1960–2010

Notes: In this figure and throughout, the last time-point available for Australia, Japan, and the Netherlands is 2009. For brevity, we simply refer to 2010 as the endpoint.

Results

Descriptive Patterns

Figure 2 displays the trends in the public share of health spending for each country. There is substantial historical and cross-national variation with a minimum of 22 percent (United States in 1960) to 98 percent (Norway in 1977). A few countries exhibit sharp breaks (likely reflecting a combination of reforms and measurement error) though the patterns and results are similar if we smooth the trends. The social democratic Nordic countries show consistently high public shares while the liberal United States started and remains relatively low. At the same time, the UK, Australia, and Canada have high public shares despite also being liberal Anglo-Saxon countries.

Figure 3 The Coefficient of Variation in the Public Share of Health Spending across Eighteen Rich Democracies, 1960–2010

There is an increase over time in many, but not all, countries. Those with high initial levels in 1960 experienced stagnation or a slight decline, while many countries with low initial levels increased their public share. Across countries, the mean rose from 62.6 in 1960 to 74.7 in 1970. The cross-national mean peaked at 77.3 in 1981 but was actually relatively stable between 1970 and 2010. Indeed, figure 1 reveals that utilizing the 1960 value as the initial condition is probably a conservative choice. 1960 is before many countries experienced substantial expansions in welfare states and health programs, and by 1970, countries had locked into a public share that is much closer to the public share in the 1980s and 1990s (Huber and Stephens 2001).

While there is substantial cross-national and historical variation in the public share, there has also been a significant decline in variation over time (Hacker 2004: 711). Figure 3 reports the annual cross-country coefficient of variation, which provides clear evidence of convergence

Figure 4 Public Share of Health Spending in 1960 and 2010 ($r = .749$)

across countries from 1960 to 2010. The coefficient of variation falls from about 0.30 in 1960 to about 0.13 by 2010. In 1960, the range between the highest and lowest country was 65.73 percent. By 2010, the range declined to 37.7 percent.

Given there has been considerable historical variation mixed with convergence, it might seem unlikely for initial conditions to be strongly associated with current public share. However, figure 4 reveals there is actually a strong correlation between a country's 1960 value and its 2010 public share ($r = 0.75$). There are a few exceptions—e.g., the Netherlands should have a lower public share in 2010 given its 1960 value and the United States should have a higher public share even given its very low public share in 1960. However, the prevailing pattern is a strong association between the 1960 value and the 2010 public share. Thus, despite substantial historical variation and cross-national convergence, there is evidence of a strong path dependency between initial conditions and contemporary variation.

Main Pooled Time Series Models

Table 1 displays the models of the public share. To ease comparison, we report standardized coefficients. The first model includes the conventional welfare state predictors but omits the key independent variable of the 1960 value. Consistent with power resources explanations, right cabinet is significantly negative and unionization and voter turnout are significantly positive. Consistent with institutional explanations, veto points is significantly negative and has the largest coefficient of any variable. Among the economic variables, inflation is significantly positive while deindustrialization and trade openness are significantly negative. Among the demographic variables, only population aging is significant (+). Linear time is also significantly positive, which implies the over-time growth in the public share is not fully explained by conventional welfare state predictors.

The second model omits all conventional welfare state predictors and only includes the 1960 value. In model 2, the 1960 value has a highly significant and large positive coefficient. For a standard deviation increase in the 1960 value, the current public share is expected to increase by 0.8 standard deviations. Equally notable, model 2 fits the data nearly as well as model 1 ($R^2=0.607$ vs. 0.696), even though model 2 includes only one variable while model 1 includes fifteen. Model 2 strongly supports H1.

Model 3 includes both the 1960 value and the conventional welfare state predictors. Even adjusting for all fifteen variables, the 1960 value remains highly significantly positive. The coefficient attenuates somewhat, which suggests that some of the influence of the 1960 value is mediated by conventional welfare state predictors. Still, for a standard deviation increase in the 1960 value, the current public share is expected to increase by about 0.56 standard deviations. This is the largest coefficient in the model by a sizable margin. Thus, the third model also provides strong support for H1.⁷

The inclusion of the 1960 value in model 3 also alters the coefficients of several conventional welfare state predictors. Among power resources variables, voter turnout remains significantly positive. However, its

7. A logical next step is to interact the 1960 value with time as it is plausible that the effect of the 1960 value is stronger in earlier years and decays over time (Page 2006). In table 3, we interact the 1960 value with all independent variables. In that model, the interaction of the 1960 value and time is not significant ($z=-0.4$). However, we also experimented with only interacting the 1960 value with time. Though the interaction is significantly negative, the effects of the 1960 value and time remain significantly positive.

Table 1 OLS-PCSE Models of the Public Share of Health Spending in Eighteen Rich Democracies, 1961–2010. (*N* = 808): Standardized Coefficients and *t*-scores

	Model 1	Model 2	Model 3	Model 4	Model 5
1960 value		.802*** (14.50)	.555*** (11.32)	.032** (3.29)	.213*** (4.66)
Right cabinet	-.092** (-2.64)		-.142*** (-4.25)	-.016 (-1.90)	-.150*** (-5.33)
Left cabinet	-.050 (-1.40)		-.113** (-3.18)	-.010 (-1.03)	-.149*** (-4.93)
Unionization	.104* (2.53)		.023 (.56)	-.017 (-1.87)	-.032 (-1.01)
Voter turnout	.141*** (4.05)		.097** (2.90)	.021* (2.34)	-.012 (-.42)
Veto points	-.509*** (-9.82)		-.286*** (-5.24)	-.042** (-3.06)	-.127** (-2.66)
Military spending	-.017 (-.56)		-.025 (-.84)	-.003 (-.37)	-.034 (-1.27)
GDP pc	-.112 (-1.34)		-.008 (-.10)	-.016 (-.71)	.110 -1.58
Deindustrialization	-.126* (-2.09)		.089 (1.44)	.024 (1.57)	-.011 (-.21)
Inflation	.042*** (3.96)		.040*** (3.69)	.003 (.49)	.052*** (4.57)
Unemployment	-.004 (-.15)		-.040 (-1.38)	-.033** (-2.98)	-.014 (-.52)
Trade openness	-.158*** (-3.43)		-.098* (-2.16)	-.007 (-.72)	-.140*** (-3.90)
Population > 64	.244*** (4.95)		.150** (2.96)	.012 (1.05)	.185*** (4.63)
Net migration	-.002 (-.22)		-.004 (-.39)	.001 (.08)	-.008 (-.93)
Female labor	.052 (1.29)		.027 (.67)	.005 (.44)	-.021 (-.62)
Time	.322*** (3.36)		.082 (.84)	-.015 (-.66)	.033 (.41)
Public share of health Spending (<i>t</i> -1)				.924*** (78.02)	
Public share of health Spending (country mean)					.656*** (11.92)
<i>R</i> ²	.696	.607	.720	.967	.776

Note: Constants not shown. All models employ a first-order autocorrelation correction.

* $p < .05$, ** $p < .01$, *** $p < .001$

coefficient is about two-thirds as large as in model 1. Unionization is now insignificant. Right cabinet remains significantly negative, however left cabinet becomes surprisingly significantly negative, and the coefficients for both increase considerably. Taking into account the 1960 value, centrist parties have encouraged the growth of the public share while both leftist and rightist parties have been associated with a declining public share.⁸ The key institutional variable, veto points remains significantly negative. However, the coefficient is about half as large as in model 1. Because veto points mostly differ between countries and do not change dramatically over time, this suggests that much of the influence of veto points manifested by 1960. Still, veto points have independently slowed the growth of the public share since 1960. Among economic variables, inflation remains significantly positive, but deindustrialization is now insignificant and trade openness has a smaller significant positive coefficient. Population aging remains significantly positive, though it has a much smaller effect. Also, time is now insignificant. In sum, including the 1960 value has salient consequences for conventional welfare predictors.

Before moving forward, models 4–5 display two sensitivity analyses. As discussed above, Y_{1960} could be correlated with the lagged dependent variable (LDV). In model 4, we adjust for the LDV, which is very significantly positive ($t > 78$). However, even after adjusting for this powerful control, the 1960 value remains significantly positive ($t = 3.3$). This is the case even though right and left cabinet, inflation, trade openness, population > 64 , and time are insignificant. As discussed above, Y_{1960} could conflate initial conditions and unobserved time invariant country characteristics. While we cannot incorporate country FEs, model 5 adjusts for the country-mean of the dependent variable, which is also very significant and positive ($t = 11.9$). Again, however, the 1960 value remains significantly positive ($t = 4.7$). The magnitude of the coefficients of the 1960 value is naturally much smaller in models 4–5. However, even adjusting for the LDV or the country-mean of the dependent

8. In other analyses, we estimated an OLS model predicting the 1960 value. We found cumulative left party power 1946–60 had a significant positive effect, and cumulative right party power 1946–1960 had a significant negative effect (before and after controlling for the significant negative effect of veto points) (cf. Huber and Stephens 2001). Thus, while left-right party power drove differences in the initial 1960 value, both parties are associated with a declining public share net of the 1960 value. Similarly, Reeves and colleagues (2014) find negative (albeit insignificant) effects of left and right party governments on per capita government health spending in twenty-seven European Union countries 1995–2011. As shown below (see table 3), this is complicated by the interaction between left cabinet and the 1960 value.

variable, there continues to be a strong significant association with the 1960 value.

As an additional robustness check, we experimented with incorporating health care regimes in analyses available upon request (Beckfield, Olafsdottir, and Sosnaud 2013; Wendt 2009). Reestimating model 3, the analyses reveal that indicators for health care regimes do significantly influence the public share (e.g., adding a dummy for national health service; or dummies for “universal coverage-controlled access” and “low budget-restricted access” in reference to “health service provision-oriented” [Wendt 2009]). Further, there is evidence that health care regimes significantly interact with the 1960 value. Nevertheless, in every model, the main effect of the 1960 value remains highly significantly positive. Therefore, even though health care regimes meaningfully shape the public share and how the 1960 value influences the contemporary public share, the 1960 value maintains a robust impact on the public share.

ISSP Analyses

Table 1 supports H1 and demonstrates path dependency between the initial 1960 levels and current levels of the public share. To deepen understanding of this path dependency, we now evaluate H2 by investigating public opinion as one potential mechanism. We utilize the 2006 ISSP role of government survey, which includes data for fifteen of the eighteen countries (data is unavailable for Austria, Belgium, and Italy) (ISSP 2008). We analyze individual-level preferences for government spending on health as a function of the 1960 value and other variables. The dependent variable is a binary measure of preferring the same or greater spending (reference: spend less). Following prior research on welfare attitudes (Brooks and Manza 2007; Fernandez and Jaime-Castillo 2013; Kikuzawa, Olafsdottir, and Pescosolido 2008; Lynch and Gollust 2010; Svallfors 2007), we include a variety of individual-level variables. We also adjust for 2006 public health spending as a percent of GDP, which Kikuzawa, Olafsdottir, and Pescosolido (2008) find has a significant negative effect in a similar analysis. Plausibly, this is because rising health expenditures heighten fiscal pressures and anxieties about government budgets (Hacker 2004: 704). Because of the clustering of individuals within countries and the inclusion of country-level variables, we estimate logistic regression

Table 2 Logistic Regression Model of Individual Preference for the Same or Greater Government Spending on Health in 2006 in Fifteen Rich Democracies. ($N = 17,373$): Standardized Average Marginal Effects or Average Marginal Effects and (Z-Scores)

	Model 1	Model 2	Model 3
1960 public share	.011* (2.42)	.012* (2.39)	.014* (2.59)
Public health spending as % of GDP			-.016** (-3.47)
Age		.003 (.23)	.006 (.48)
Age ²		-.003 (-.29)	-.006 (-.65)
Female		.008** (2.69)	.007* (2.24)
Never married		-.004 (-.49)	-.005 (-.53)
Divorced		-.010 (-1.72)	-.007 (-1.21)
Widowed		-.008 (-1.32)	-.006 (-1.01)
Children in HH		.001 (.10)	.001 (.17)
Rural		-.016 (-1.61)	-.017 (-1.50)
Suburb		-.003 (-.55)	-.005 (-.80)
Low education		-.008 (-1.38)	-.004 (-.76)
High education		-.011* (-2.39)	-.009* (-2.22)
Part-time		.002 (.56)	-.0002 (-.04)
Unemployed		.005 (.68)	.008 (1.39)
Not in labor force		.004 (.68)	.005 (1.28)
Self-employment		-.010* (-1.99)	-.012** (-2.48)
Public employment		.011* (2.68)	.012* (2.52)
Relative income		-.005** (-2.83)	-.005** (-3.21)

Table 2 (continued)

	Model 1	Model 2	Model 3
Protestant		.015 (1.47)	.012 (.99)
Catholic		.005 (.56)	.005 (.51)
Other religion		-.00002 (-.00)	-.006 (-.81)
Religious attendance		-.004 (-1.30)	-.005 (-1.61)

Notes: Constants not shown. For binary variables we report AMEs and otherwise we report standardized AMEs.

* $p < .05$, ** $p < .01$, *** $p < .001$

models with robust-clustered errors.⁹ Table 2 displays the models of preferences for government spending on health. We report average marginal effects (AMEs) and standardized AMEs (for continuous variables) to enable comparison. The remaining measurement details are available in appendix B.

Consistent with H2, the first model shows the 1960 value is significantly positive. For a standard deviation higher 1960 value, the probability of preferring the same or greater government spending on health increases by 1.1 percent. While this might seem like a small effect, it is important to acknowledge the mean is quite high as most people support the same or greater government spending on health (see appendix B). The second model adds the individual-level variables. Consistent with prior research, being female or a public employee increases support for government spending on health. By contrast, having higher education, being self-employed, and higher incomes are associated with significantly less support.

Model 2 also shows the 1960 value is significantly positive. For a standard deviation increase in the 1960 value, the probability of preferring the same or greater government spending on health increases by 1.2 percent. By a slight margin, the 1960 value has the largest effect in the model. The standardized AME for the 1960 value is larger than the AME for being female, having higher education, being self-employed or a public employee, or a standard deviation increase in higher income.

Model 3 adds the 2006 public health spending as a percent of GDP, which is significantly negative (Kikuzawa, Olafsdottir, and Pescosolido

9. An alternative would be hierarchical generalized linear models. However, with only fifteen countries and two country-level variables, we do not have a sufficient number of level-2 units for such models (Stegmüller 2013). The limited number of countries also discourages us from testing for cross-level interactions.

Table 3 OLS-PCSE Model of the Public Share of Health Spending in Eighteen Rich Democracies, 1961–2010. ($N = 808$)

	Coefficient	(Z-Score)
1960 value	.388***	(13.04)
Right cabinet	-.086***	(-6.67)
Right cabinet* 1960	.000	(.51)
Left cabinet	-.101***	(-6.21)
Left cabinet* 1960	.003***	(2.78)
Unionization	.066***	(2.68)
Unionization* 1960	-.002	(-1.01)
Voter turnout	.055*	(1.78)
Voter turnout* 1960	.001	(.37)
Veto points	-.717**	(-2.31)
Veto points* 1960	.091***	(4.80)
Military spending	.893***	(3.30)
Military spending* 1960	.058***	(5.22)
GDP pc	.000	(.98)
GDP pc* 1960	-.000	(-1.16)
Deindustrialization	.229***	(2.60)
Deindustrialization* 1960	.003	(.65)
Inflation	.200***	(5.86)
Inflation* 1960	-.010***	(-5.61)
Unemployment rate	-.185*	(-1.79)
Unemployment rate* 1960	-.017***	(-3.18)
Trade openness	-.073***	(-4.46)
Trade openness* 1960	.002**	(2.57)
Population > 64	.680***	(3.64)
Population > 64* 1960	-.048***	(-3.19)
Net migration	-.028	(-.93)
Net migration* 1960	.001	(.66)
Female labor	-.006	(-.13)
Female labor* 1960	.006**	(2.54)
Time	.028	(.25)
Time* 1960	-.002	(-.36)
R^2	.797	

Note: Constant not shown. The model employs a first-order autocorrelation correction.

* $p < .05$, ** $p < .01$, *** $p < .001$.

2008). The same individual-level variables from model 2 are significant again. The 1960 value has an even larger and more significant positive AME. For a standard deviation increase in the 1960 value, the probability of preferring the same or greater government spending on health increases 1.4 percent. This standardized AME is larger than any

individual-level variable, and only slightly smaller than the negative AME of public health spending as a percent of GDP. All models confirm H2. A higher public share in 1960 increases individual preferences for the same or greater government spending on health in 2006.¹⁰

Interaction Effects in Pooled Time Series

To investigate the self-reinforcing H3 and the counteracting H4, we return to the pooled time series data. Table 3 displays a model that interacts the 1960 value with all the conventional welfare state predictors from table 1. Eight of the interaction effects are statistically significant, suggesting that these independent variables have differing effects depending on the 1960 value of a given country. To interpret the interactions, we estimate marginal effects for the independent variable at each 1960 value.

Figure 5 displays these effects with 95 percent confidence intervals. We focus on the eight significant interaction effects, even though a few others exhibit some (albeit statistically insignificant) variation.

Five independent variables exhibit positive feedback effects, supporting H3. Left cabinet significantly positively interacts with the 1960 value. At low 1960 values like the United States, the Netherlands, and Switzerland, left cabinet has a significant negative effect on the public share of health spending. However, in high 1960 value countries like Denmark, Italy, and the UK, left cabinet does not significantly influence the public share. At low 1960 values, veto points have a significant negative effect on the public share. At high 1960 values, veto points have a significant positive effect on the public share. Similarly, military spending only has a significant negative effect on the public share at low 1960 values. At even moderate 1960 values, military spending begins to have a significant positive effect on the public share. In low 1960 value countries, trade openness undermines the public share. However, in high 1960 value countries, the effect of trade openness is not significantly different from zero. Finally, female labor force participation has a significant negative effect in low 1960 value countries but has a significant positive effect in high 1960 value countries.

Three independent variables exhibit negative feedback effects, supporting H4. In low 1960 value countries, inflation significantly increases the public share. However, in high 1960 value countries, inflation does not significantly influence the public share. Unemployment negatively

10. Because the analyses only include 14 countries, the results are less significant if we omit countries. For example, if we omit the United States from model 3, the AME estimate is still .014. However, the *p*-value is only .15.

Figure 5 Marginal Effects of Independent Variables at Each 1960 Value

Notes: The y-axes depict coefficient for public share of health spending. The gray areas indicate 95% confidence intervals).

interacts with the 1960 value. In low 1960 value countries, unemployment has a slight positive effect. However, at high 1960 values, unemployment has a significant negative effect. Finally, population aging has a significant positive effect in low 1960 value countries and a significant negative effect in high 1960 value countries.

Altogether, low 1960 value countries like the United States, the Netherlands, and Switzerland experience an increasing public share of health spending as a result of rising inflation, unemployment, and population aging. Because unemployment and aging have increased in most countries over time, this has likely contributed to the cross-national convergence observed in figure 3. Conversely, low 1960 value countries experience a declining public share as a result of left cabinet, veto points, military spending, trade openness, and female labor force participation. Because trade openness and female labor force participation have increased in most countries, this has slowed cross-national convergence. In high 1960 value countries like Denmark, Italy, and the UK, veto points, military spending, and (slightly) female labor force participation increase the public share, while only unemployment significantly reduces it. The rise of unemployment has pushed high 1960 value countries toward the cross-national mean, while the rise of female labor force participation has partially offset this pressure toward convergence.

Discussion

This study analyzes the cross-national and historical variation in the public share of health spending in rich democracies. We contend the public share is important for several reasons. The public share reflects meaningful institutional and policy differences in the organization and socialization of health care. The public share is also associated with health care costs, the organization of insurance, population health outcomes, and inequality. Public health care is one of the most expensive social policies and is often a source of political contention. Nevertheless, cross-national analyses remain relatively rare in the health policy literature and health care has been relatively neglected by the welfare state literature. We analyze pooled time series data on eighteen rich democracies from 1960 to 2010. We supplement this with analyses of the 2006 International Social Survey Programme (ISSP).

Building on path dependency theories, we examine four hypotheses. The first two hypotheses are affirmed. Initial levels of the public share in 1960 are very positively associated with 2010 levels, and the public share in 1960 significantly predicts individual preferences for the same or greater

government spending in 2006. Indeed, most of the variation 1960–2010 in public health spending can be explained by a country's initial value in 1960 (see table 1, model 2). This 1960 value has large significant effects in models of 1961–2010. Further, the inclusion of the 1960 value alters the coefficients of conventional welfare state predictors. Notably, adjusting for the 1960 value reveals that both left and right cabinets were negatively associated with declines in the public share relative to centrist parties (see also fn. 9). Also, voter turnout, veto points, trade openness and population aging have much smaller effects once we adjust for the 1960 value, while unionization and deindustrialization become insignificant. This implies that conventional welfare state predictors may be conflated with stable differences between countries that had already manifested by 1960. While FE models also adjust for stable differences between countries, our approach has the advantage that the 1960 value has theoretical content.

The 2006 ISSP analyses provide evidence of public opinion serving as a mechanism in the path dependency of the public share. Consistent with H2, higher initial 1960 values encourage norms and interests, which manifest in individual preferences for maintaining or increasing government spending on health care (Brooks and Manza 2007; Fernandez and Jaime-Castillo 2013; Jordan 2010). Notably, we demonstrate that the 1960 value has a standardized AME that is larger than established predictors of welfare attitudes such as being female, self-employed, or a public employee, or having a high education or income. On balance, it is important to acknowledge that most respondents in all countries favor the same or greater government spending on health (see appendix B). On one hand, this suggests that individual preferences may not be able to explain the substantial cross-national variation in the public share. On the other hand, the high levels of individual preferences make it much more difficult for the 1960 value to have a significant effect. That the 1960 value significantly predicts individual preferences forty-six years later suggests public opinion is one mechanism (among several) at work in path dependency.

To be clear, we do not provide evidence of a critical juncture, nor do we differentiate between stricter definitions of path dependency (see fn. 6; Jackson and Kollman 2012; Page 2006). Our contribution is to demonstrate the core general principle of path dependency as contained in H1–H2. It is important to acknowledge that the initial 1960 value of the public share stands in for a variety of important historical, political, and social phenomena. We contend the initial value captures the historic legacies of health politics and policies prior to 1960, and reflects enduring

expectations about government's role in health care and the organization of health care in 1960 and before.

Beyond H1 and H2, we examine two processes for how initial conditions of social policy feed back into the contemporary politics of the policy. We present the self-reinforcing H3 expecting positive feedbacks, and the counteracting H4 expecting negative feedbacks. The analyses provide some support for each of these hypotheses. We show that the 1960 values interact significantly with eight conventional welfare state predictors. Most supportive of H3 are the effects of left cabinet, veto points, military spending, trade openness, and female labor force participation. Most supportive of H4 are the effects of inflation, unemployment, and population aging. Therefore, we find evidence of both self-reinforcing and counteracting processes, and these factors have both contributed to and offset the trend toward cross-national convergence. Because much more of the literature has concentrated on self-reinforcing processes and positive feedbacks, we encourage greater attention to counteracting processes and negative feedbacks.

The present study contributes to an emerging literature of cross-national analyses of the public share of health spending. We aim to build bridges between the case study literature on health care and the cross-national welfare state literature. Relative to other welfare state outcomes, we show that some conventional welfare state predictors have unexpected effects for this particular outcome of the public share of health spending. We also confirm a number of arguments from the small-*N* and case study literature on health care policy. For instance, veto points are particularly important (Immergut 1992). More generally, we hope to demonstrate the value of dialogue between these literatures. Many case studies provide evidence consistent with path dependency and complementary to welfare state theories. At the same time, the health care literature suggests that health care does not simply mirror but gives us new insights on other welfare state outcomes (Bambra 2005).

This article also aims to build bridges between the largely qualitative path dependency literature and the quantitative welfare state literature. Our analytic strategy illustrates how path dependency can be applied in quantitative analyses, and this strategy could be useful for other studies. It would be worthwhile to investigate if the initial 1960 value explains other welfare programs like pensions and unemployment insurance as well as welfare effort generally. Given that time series data are available for most welfare state outcomes and the ISSP contains a variety of welfare attitudes, it could prove useful to incorporate historical values of social policy in analyses of

contemporary welfare attitudes. If the 1960 value does not as effectively explain other welfare state outcomes or welfare attitudes, this raises the question of why there is so much path dependency for the public share of health spending and not for other social policies. This would then enable greater precision in understanding the conditions under which social policy is more or less path dependent (Hacker 2002).

Beyond the points already raised, we encourage future research in several directions. First, there is a need for greater investigation of the cross-national and historical variation in health care policy. Second, though we examine individual preferences as one mechanism of path dependency, there are obviously other mechanisms between the initial 1960 values and current levels of the public share. One could investigate the effects of the 1960 value on, for example, mediating factors such as physician or insurance power, voting, party manifestos, and coalitions between collective actors. Third, there has been increasing interest in the welfare states of developing and nondemocratic countries. For many such countries, data on social policies exist prior to democratization or even prior to the transition to authoritarianism that preceded democratization. It would be interesting to investigate the relationship between the historical legacies of the social policies of earlier regimes and the social policies that emerge and expand during and after democratization.

Finally, because we show that the 1960 value of the public share is important to contemporary health care politics and policy, the historical sources of health care policy continue to deserve attention. Just as scholars have investigated the role of institutions like taxation and corporatism in the late nineteenth century and early twentieth century for other welfare state outcomes, it is essential to understand the deeper historical origins of health care policies. Indeed, this article is one step toward integrating the historical studies of why countries adopted national health service, national health insurance, or neither (Navarro 1989) and quantitative studies of the contemporary welfare state. Relatedly, although we continue to find a significant effect of the 1960 value, sensitivity analyses suggest meaningful differences between health care regimes (and interactions between health care regimes and the 1960 value) that deserve further attention.

Public funding of health care has contributed to many improvements in health in recent decades. Despite the cross-national variation, there is a consensus that the state should play at least some role in health care. In many rich democracies, health care is even a social right. Markets remain unlikely to be able to provide health care for all because of the perennial

uncertainties regarding health risks and the efficacy of treatments (Arrow 1963). Nevertheless, all rich democracies face increasingly older populations and longer life expectancies, and health care costs represent an increasingly expensive item in government budgets (Marmor et al. 2005). As a result, health care will continue to be one of the most important social policies and an ongoing source of political contention. Thus, understanding the politics of health care policy should remain quite important in the years to come.

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Appendix A Descriptive Statistics and Sources for Variables in Pooled Time Series Analysis (*N* = 808)

	Mean	SD	Source(s)
Public share of health spending	73.757	12.677	OECD, <i>Health Data</i>
1960 value	62.305	18.392	Same
Right cabinet	39.732	31.314	Brady et al. (2014)
Left cabinet	32.261	29.096	Same
Unionization	42.253	18.532	Visser, Jelle, <i>ICTWSS</i> (v 3.0 and v 4.0), www.uva-aiaas.net/207
Voter turnout	78.615	12.615	Brady et al. (2014)
Veto points	2.830	2.092	Same
Military spending	2.524	1.426	Sipri, <i>Military Expenditure Database</i> , www.sipri.org/research/armaments/milex/
GDP p.c.	23391.420	7626.689	Penn World Tables
Deind.	61.991	10.630	OECD, <i>Employment and Labour Force Statistics</i>
Inflation	4.949	4.065	OECD, <i>Main Economic Indicators</i>
Unemployment	5.305	3.526	OECD, <i>Employment and Labour Force Statistics</i>
Trade openness	48.496	28.185	IMF, <i>International Financial Statistics</i>
Population > 64	13.004	2.683	OECD, <i>Employment and Labour Force Statistics</i>
Net migration	2.024	3.804	OECD, <i>Health Data</i> ; OECD, <i>Employment and Labour Force Statistics</i>
Female labor	56.439	12.461	OECD, <i>Employment and Labour Force Statistics</i>
Time	23.853	13.105	

Note: The proximate source for most variables is Brady et al. (2014).

Appendix B Descriptive Statistics and Details for Variables in ISSP Analysis (*N* = 17,373)

	Mean	SD	Reference Group
Preference for same or greater government spending on health	.966	.180	Prefer less or much less
Age	48.782	16.595	
Age ²	2655.038	1677.295	
Female	.523	.499	Male
Never married	.230	.421	Married
Divorced	.103	.305	Married
Widowed	.061	.239	Married
Children in HH	.332	.471	No children
Rural	.281	.449	Urban
Suburb	.495	.500	Urban
Low education	.364	.481	Medium education
High education	.204	.403	Medium education
Part-time	.133	.339	Full-time employee
Unemployed	.031	.173	Full-time employee
Not in labor force	.354	.478	Full-time employee
Self-employment	.111	.314	Not self-employed
Public employment	.270	.444	Private sector
Relative income	.019	1.008	
Protestant	.411	.492	No religion
Catholic	.222	.416	No religion
Other religion	.099	.298	No religion
Religious attendance	2.162	2.077	