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Envisioning Performance Funding Impacts:
The Espoused Theories of Action for State
Higher Education Performance Funding
in Three States

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Abstract

This study reviews the theories of action espoused by state-level performance funding advocates and implementers in Indiana, Ohio, and Tennessee. The study found that these espoused theories of action are incompletely articulated, with significant gaps in the specification of policy instruments, desired institutional changes, and possible obstacles and unintended impacts that need to be countered. Performance funding is conceived largely as stimulating changes in institutional behavior and student outcomes by providing financial inducements and securing institutional buy-in. Less attention is paid to other policy instruments, such as providing information on institutional performance to the colleges and building up the capacity of institutions to engage in organizational learning and change. The states' espoused theories of action for performance funding are, thus, narrower than those for state and federal K-12 accountability programs, which put much more emphasis on information provision and capacity building. Moreover, the espoused theories of action for performance funding in the three states miss important possible obstacles to and unintended impacts of performance funding. This report argues that insufficiently articulating the theories of action for performance funding makes it less likely that it will be successful and avoid undue harm.

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1. Introduction

Since the 1970s, policymakers have become increasingly concerned about improving the performance of higher education institutions. Particularly in recent years, performance funding—which connects state appropriations directly to a college's performance on indicators such as student retention, graduation, and job placement—has become a particularly attractive way of pursuing better college outcomes (J. C. Burke, 2002, 2005; Dougherty, Jones, et al., 2013; Dougherty & Reddy, 2013; Harnisch, 2011; Longanecker, 2012a, 2012b; Lumina Foundation, 2011; McLendon, Hearn, & Deaton, 2006; National Conference of State Legislatures, 2012; Reindl & Jones, 2012; Reindl & Reyna, 2011; Zumeta, 2001).

In order to realize certain student outcomes, performance funding programs necessarily must embody "theories of action" (Argyris & Schön, 1996) for producing them. The concept of a theory of action closely parallels those of "policy instruments," which are the mechanisms for translating goals into action (McDonnell & Elmore, 1987, p. 134), and "social mechanisms," which are causal processes through which an outcome is to be brought about (Colyvas, 2012; Hedstrom & Ylikoski, 2010).

The purpose of this paper is to examine the theories of action that advocates of performance funding have *espoused* for higher education in three states that are leaders in performance funding: Indiana, Ohio, and Tennessee. That is, the study identifies the theories of action that advocates had consciously in mind as programs were adopted and implemented. These espoused or intended mechanisms of action are to be distinguished from the actual "theories in use" (for more, see below). The concern with espoused theories lies in the assumption that, if espoused theories of action are underdeveloped, then it is less likely that actions will be taken to ensure that performance funding has its intended effects. As part of this analysis, the study compares the espoused theories of action underlying performance-based funding for higher education with those for K-12 performance accountability.

2. Research and Theoretical Perspectives

To understand the nature of the theories of action underlying performance funding, this study draws on, and integrates, three distinct bodies of research covering, respectively, performance funding policies specifically, policy implementation in general, and organizational learning. The literature on performance funding in higher education covers a rich set of cases on the adoption and implementation of performance funding programs. The studies shed light on the various arguments used by advocates of performance funding about how it should work (J. C. Burke, 2002, 2005; Dougherty, Natow, Hare, Jones, & Vega, 2011, 2013; Dougherty & Reddy, 2013).

To more deeply understand the theories of actions proposed by the advocates, we draw on the general policy literature on implementation. This literature lays out a variety of "policy instruments" by which policymakers typically attempt to shape the actions of the targets of their policies, such as colleges and universities. These instruments include incentives or inducements, persuasion, capacity building, regulation, and direct provision of services by government (Anderson, 2011; Honig, 2006; Howlett, Ramesh, & Perl, 2009; McDonnell & Elmore, 1987; Matland, 1995; Stone, 2012). Policy research finds that each instrument has particular benefits and costs and that an effective policy will typically draw on a variety of policy instruments (Howlett et al., 2009, pp. 168–176; McDonnell & Elmore, 1987, pp. 137–138, 150; Massy, 2011, p. 228; Stone, 2012).

One of these policy instruments is capacity building. It has been argued that one of the most important capacities for making performance funding work effectively is the capacity of colleges to engage in organizational learning—that is, to effectively analyze their performance, determine where it is deficient, craft solutions, and evaluate the effectiveness of those solutions (Dougherty & Reddy, 2013; Dougherty, Jones, et al., 2013). To understand organizational learning, this study considers theory and research on organizational change and organizational learning, both in colleges and in organizations more generally (Argyris & Schön, 1996; W. W. Burke, 2011; Dowd & Tong, 2007; Huber, 1991; Kerrigan, 2010; Kezar, 2005, 2012; Lipshitz, Popper, & Friedman, 2002; Witham & Bensimon, 2012). This literature points to a variety of structural, cultural, and psychological factors that facilitate or hinder an organization's engagement in effective organizational learning intended to lead to organizational change. For instance, Argyris

and Schön (1996) state: "An organization's *learning system* is made of the *structures* that channel organizational inquiry and the *behavioral world* of the organization, draped over these structures, that facilitates or inhibits organizational inquiry" (p. 28). The structures include channels of communication, information systems, and "procedures and routines that guide individual and interactive inquiry; and systems of incentives that influence the will to inquire" (p. 28; see also Lipshitz et al., 2002, p. 82). The behavioral world includes "the qualities, meanings, and feelings that habitually condition patterns of interaction among individuals within the organization in such a way as to affect organizational inquiry—for example, the degree to which patterns of interaction are friendly or hostile" (Argyris & Schön, 1996, p. 29; see also Lipshitz et al., 2002, pp. 81, 87–90).

3. Conceptual Framework

Performance funding programs aim to improve institutional performance, particularly with respect to student outcomes. Outcomes to be improved include student retention, passage of key courses, accrual of certain numbers of credits, graduation, and job placement, among others. They constitute the performance indicators that performance funding programs use as the basis for allocating funds.

Performance funding programs embody "theories of action" (Argyris & Schön, 1996) for how colleges can produce the desired outcomes. Argyris and Schön (1996) state:

> The general form of a theory of action is: If you intend to produce consequence C in situation S, then do A. Two further elements enter into the general schema of a theory of action: the values attributed to C that make it seem desirable as an end-in-view and the underlying assumptions, or model of the world, that make it plausible that action A will produce consequence C in situation S. (p. 13)

The concept of a theory of action closely parallels that of "policy instruments," defined as "mechanisms that translate substantive policy goals into concrete actions" (McDonnell & Elmore, 1987, p. 134).

The particular interest in this study is the theory of action *espoused* by the advocates of performance funding. Argyris & Schön (1996) differentiate espoused theories and theories in use:

> By "espoused theory" we mean the theory of action which is advanced to explain or justify a given pattern of activity. By "theory-in-use" we mean the theory of action which is implicit in the performance of that pattern of activity. A theory-in-use is not a "given." It must be constructed from observation of the pattern of action in question. (p. 13).

Here, we consider the specific mechanisms that the advocates of performance funding in the three states espouse, or consciously advance, to help ensure that performance funding generates improved college performance.

The theory of action most often espoused by advocates of performance funding is that the provision of material incentives that mimic the profit motive for businesses will improve institutional performance (J. C. Burke, 2005, p. 304; Dougherty & Hong, 2006, pp. 59–60; Dougherty, Jones, et al., 2013; Massy, 2011, pp. 225, 227). This theory of action closely resembles "inducement" or "incentives" as a policy instrument (McDonnell & Elmore, 1987, pp. 134, 137–138; Stone, 2012, ch. 12) or "remuneration" as a source of organizational compliance (Etzioni, as cited in Matland, 1995, p. 161). Applied to higher education institutions, this material-incentives theory of action holds that the institutions are revenue maximizers and will make a strong effort to improve their performance if the amount of funding involved is significant enough (J. C. Burke, 2002, pp. 266–272).

Despite the primacy of financial incentives, advocates of performance funding programs have sometimes also espoused other theories of action. One is the provision of information to college officials and faculty about the goals and intended methods of performance funding as a means to catalyze institutional change; the aim is to persuade colleges of the importance of improved student outcomes (Dougherty & Hong, 2006, pp.

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60–61; Dougherty, Jones, et al., 2013; Dougherty & Reddy, 2013; Massy, 2011, pp. 226–227; see also Anderson, 2011; Ewell, 1999, p. 194; Rutschow et al., 2011).[1]

Another informational policy instrument is making colleges aware of their performance, particularly in comparison with other colleges, in order to mobilize feelings of pride and status striving (J. C. Burke, 2005, p. 304; Dougherty & Hong, 2006, pp. 61–62). This strategy of increasing institutions' awareness of gaps in their performance relative to their own goals and standards resembles Huber's (1991, pp. 92–93) experiential learning through organizational self-appraisal. It also fits the theory of action described by Bensimon, Dowd, and colleagues in connection with their Equity for All and Community College Student Success Projects (Baldwin, Bensimon, Dowd, & Kleiman, 2011; Bensimon, 2005; Dowd & Tong, 2007; Witham & Bensimon, 2012).[2]

Finally, an important possible policy instrument is building up the capacity of colleges to respond effectively to performance funding, particularly through organizational learning and changes in college academic and student support policies and practices (Rutschow et al., 2011; Witham & Bensimon, 2012; see also Kezar, 2005; McDonnell & Elmore, 1987; Morgan, 2006).[3] For example, the Achieving the Dream initiative of Lumina Foundation and other funders is premised on the idea of assisting colleges with organizational learning:

> Achieving the Dream provided both monetary and technical support to the participating institutions. … the colleges were aided by two consultants: a data facilitator, who helped them perform the data collection and analysis and interpret the results, and a coach, who helped them set priorities, build consensus, and implement strategies for improvement. … Additionally, the initiative sponsored a kick-off conference and annual Strategy Institutes for all the Achieving the Dream colleges. Each institution sent

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[1] This process resembles the soft side of the mechanism of "coercive isomorphism" described by DiMaggio and Powell (1983). It also resembles, but goes beyond, the "hortatory" technique of control described by Anderson (2011).

[2] At the extreme, this strategy of closely observing the performance of one's own institution relative to that of others can become a process of intensive, fearful surveillance and self-surveillance and discipline, as conceptualized by Foucault. See the analysis by Sauder and Espeland (2009) of how law schools have come to react to their rankings on the *U.S. News* ranking of law schools.

[3] A key question is how deeply colleges will peer into their own practices and whether they may be responsible for inequalities in student outcomes. See the distinction made by Witham and Bensimon (2012) between a "culture of inquiry" approach and a "culture of evidence" approach.

teams of administrators and faculty to these events, where they learned more about the Achieving the Dream process, made plans for their own campuses, and shared ideas and lessons with other colleges on how to help students be more successful. The initiative also provided some supports that were aimed at helping colleges focus on achievement gaps between students by racial, ethnic, and income group, although this support was less concentrated than other efforts to improve colleges' leadership and research capacity. (Rutschow et al., 2011, p. 12)

Changes in colleges' revenues from the state, in their awareness of state priorities and of their own performance relative to those priorities, and in their organizational learning capacities can be termed the *immediate* impacts of performance funding. To be effective, these immediate impacts must catalyze *intermediate institutional changes* involving modifications of institutional policies, programs, and practices—such as changes in academic and student support services—that will result in the *ultimate student outcomes* of interest to policymakers, such as more graduates or higher job placement rates (Dougherty, Natow, et al., 2013).

We also need to consider the unintended impacts of and frequent obstacles to performance funding (Dougherty & Hong, 2006, pp. 69, 73). Unintended impacts constitute outcomes that are not intended by the enacting body but arise as side effects of funding institutions based on their performance.[4] They can take such forms as the weakening of academic standards or the narrowing of institutional missions to those that are financially rewarded (Dougherty & Reddy, 2013). The obstacles to the success of performance funding include the implementation of performance indicators that do not adequately capture institutional performance and the incapacity of many colleges to adequately diagnose performance problems and determine workable solutions (Dougherty & Reddy, 2013).

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[4] The classic sociological discussion can be found in Merton (1936).

4. Research Questions

This study focuses on this general research question: What are the theories of action espoused by the state-level advocates and implementers of state performance funding? Underlying it are several sub-questions: What are the policy instruments or mechanisms by which these state-level advocates and implementers expect performance funding to produce improved student outcomes? What changes do they wish institutions to make in academic and student support policies, programs, and practices in order to improve student outcomes? What possible obstacles to the effective operation of performance funding do they foresee? What possible unintended impacts of performance funding do they anticipate?

Our interest in these questions stems from the research finding that initial policy design plays an important role in determining policy impacts (Howlett et al., 2009, pp. 168–173). Many of the difficulties of policy implementation and program sustainability arise from incomplete or inadequately conceptualized policy designs (Racine, 2006; Savaya, Spiro, & Elran-Barak, 2008). Program effects may be weak because only a narrow range of policy instruments was used. Obstacles or negative side effects may arise because they were not anticipated and preempted.[5] As Savaya et al. (2008) note:

> [E]xistence of a theory, whether formal or informal, is important to program sustainability. Such a theory would include clear definitions of the target population, the needs to be met by the program, the expected outcomes of the program, and the interventions employed to attain them. (p. 479)

5. Performance Funding in the Three States

To answer the research questions, we analyzed the experiences of three states: Indiana, Ohio, and Tennessee. All are leaders in performance funding but otherwise differ substantially in their performance funding policy history and political and socioeconomic structures, as Table 1 shows.

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[5] In making these points, we do not dismiss the importance of the symbolic and political content of policy design (see Smith & Larimer, 2009; Stone, 2012).

5.1 Policy Overview

In terms of policy history, Tennessee was the first state to establish performance funding (in 1979), with Ohio doing so in 1995 and Indiana still later, in 2007. Ohio and Tennessee tie a much larger proportion of their state funding for higher education to performance indicators than does Indiana: 80–90 percent of their university funding, compared with 6 percent in Indiana. However, Ohio and Tennessee differ greatly in another way. Whereas the Ohio community colleges have been much less subject to performance funding than the public universities,[6] there is little difference in intensity among the Tennessee public institutions.[7] The states also differ in how they govern their public higher education systems. Indiana and Tennessee have more centralized public systems than does Ohio, with Indiana placing all but one of its community colleges under one governing board,[8] whereas the Ohio community colleges and universities all have separate governing boards (McGuiness, 2003).

The states also vary significantly in political culture and structures (Berry & Berry, 2007; Gray, Hanson, & Kousser, 2012). Tennessee and Indiana are above average in the conservatism of their electorates, whereas Ohio is very near the national average (Erikson, Wright, & McIver, 2005). Ohio and Tennessee are above the mean in the institutional powers of the governor, whereas Indiana is below (Beyle, 2004). On legislative professionalism, Ohio's legislature is much higher than Tennessee's and Indiana's (Hamm & Moncrief, 2004). The states also differ in degree of political party competition, with Indiana and Tennessee being much more competitive than Ohio (Bibby & Holbrook, 2004).

Finally, the states differ considerably in their social characteristics: population, income, and education. Ohio's population is substantially larger, wealthier, and better educated than those of Indiana and Tennessee, as shown in Table 1.

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[6] This policy will change under the new performance funding program that Ohio adopted in 2013 (Dougherty, Jones, et al., 2013).

[7] For more detail on the Ohio and Tennessee performance funding programs, see Dougherty and Reddy (2013).

[8] The Ivy Tech system in Indiana operates as a single community college, with the separate campuses reporting to a Central Office. Only one public two-year college—Vincennes University—is not part of the Ivy Tech system.

Table 1
The States Studied: Programmatic, Political, and Socioeconomic Characteristics

Characteristic	Indiana	Ohio	Tennessee
1. Year PF established			
* PF 1.0 program	2007	1995	1979
* PF 2.0 program	2009	2009	2010
2. Public higher education sectors covered by PF 2.0 program	Universities and community colleges	Universities and community colleges	Universities and community colleges
3. PF 2.0 (outcome indicators) share of state public higher education funding	6% of state higher education operational funding in FY 2014 and FY 2015.	85% of state operational funding for universities in FY 2014 and FY 2015. 50% of state operational funding for community colleges in FY 2014.	About 85–90% of state appropriations for higher education, with the rest being accounted for by utilities, major equipment, etc.
4. State higher education governance structure at the time of enactment of PF 2.0			
* State coordinating board for all public higher education in the state	X	X	X
* Public universities: Governing boards for *each* public university or university system in state	X	X	X (U of Tennessee 5 campuses)
* Public 2-year colleges: Governing board for *all* public 2-year colleges	X		X (all public 2-year colleges & non-UT universities)
* Public 2-year colleges: Governing board for *each* public 2-year college		X	
5. Political culture: Percentage identifying as conservative	37.9%	34.4%	39.3%
6. Gubernatorial powers (2002)	3.1	3.9	3.9
7. Legislative professionalism (2000)	39th	7th	32nd
8. Party competition index (1999–2003)	0.986	0.789	0.924
9. Population (2000)	6,081,000	11,353,000	5,689,000
10. Personal income per capita (2000)	$27,134	$28,208	$26,099
11. Persons 25 years and over with bachelor's degree or more (2000)	17.1%	24.6%	22.0%

Sources:

1., 2. Dougherty and Reddy (2013). See the description there of the Ohio and Tennessee programs.

3. Ohio Board of Regents (2013a, 2013b); Tennessee Higher Education Commission (2012); and authors' interviews.

4. McGuinness (2003) and authors' interviews.

5. Erikson et al. (2005). Data are derived from CBS/*New York Times* polls for 1996–2003. The mean was 34.0 percent. Figures are percentage of adults identifying as a conservative.

6. Beyle (2004). He applies a 5-point scale to six items: number of separately elected executive branch officials; tenure potential of governor; governor's appointment powers; governor's budget power; governor's veto power; gubernatorial party control of legislature. Average across all six items for 50 states is 3.5.

7. Hamm and Moncrief (2004). They use Squire's index based on state legislative salary, number of permanent staff, and length of legislative session.

8. Bibby and Holbrook (2004). They report the Ranney interparty competition index: 0.5 to 1.0 scale, with higher number meaning higher competition. Average for 50 states is 0.871.

9. U.S. Bureau of the Census (2005).

10. U.S. Bureau of the Census (2005). Figures are in current dollars. U.S. average is $29,847.

11. U.S. Bureau of the Census (2005). Average for the United States is 25.6 percent.

5.2 The Two Types of Performance Funding Programs: PF 1.0 and 2.0

The three states have established two kinds of performance funding programs that can be usefully distinguished as performance funding 1.0 (PF 1.0) and performance funding 2.0 (PF 2.0) (Albright, 2009; Snyder, 2011). PF 1.0 takes the form of a bonus, over and above regular state funding for higher education. It is allocated on the basis of certain indicators: typically, ultimate student outcome indicators, such as numbers (sometimes percentages) graduating or placed in jobs; intermediate achievement indicators, such as retention, developmental education completion, reaching certain credit thresholds, and transfer; and, more occasionally, input indicators, such as enrollments of students of certain backgrounds, and process indicators of program provision and quality, such as percentage of licensure exam takers who pass (J. C. Burke, 2002; Dougherty, Hare, & Natow, 2009). Tennessee established its PF 1.0 program in 1979 (the first in the nation), and it exists to this day. Ohio did so in 1995 and 1997 (with the introduction of the Performance and Success Challenges) and Indiana in 2007 (Dougherty & Reddy, 2013).

PF 2.0 programs differ from PF 1.0 in that performance funding no longer takes the form of a bonus on top of regular state funding but rather is part and parcel of the regular state base funding formula for higher education. One way this method is operationalized is by using a formula driven by course and degree completions and intermediate indicators such as retention and number of students reaching, say, 15 or 30 credits rather than by enrollments. Ohio and Indiana established a PF 2.0 program in 2009, followed by Tennessee in 2010 (Dougherty, Jones, et al., 2013; Dougherty & Reddy, 2013).

6. Research Methods

With data triangulation in mind, we conducted numerous interviews in each state with a wide variety of individuals involved with performance funding. We also thoroughly examined available documentary data, among which are public agency reports, newspaper articles, and academic research studies (books, journal articles, and doctoral dissertations). Table 2 presents the number and types of individuals interviewed.

Table 2
Categories of Interviewees

Category	IN	OH	TN
State higher education officials	3	5	9
Higher education institution senior administrators	3	6	5
Legislators and staff	4	2	5
Governors and advisors	1	2	3
Business leaders	1	1	0
Other (consultants, researchers, other)	1	1	1
Total	13	17	23

We interviewed state and local higher education officials because they were very likely to be aware of performance funding, either as initiators or implementers. The state higher education officials were top administrators of state governing or coordinating boards for higher education. The senior administrators of higher education institutions were usually presidents of public universities and community colleges.

State gubernatorial advisors, legislators, and their staff were included because of their centrality in state government. Even if a state higher education board was the main proponent of performance funding, gubernatorial and legislative assent would still be required in order to have state appropriations be allocated to institutions on the basis of performance indicators.

Business leaders' longstanding championing of the use of business methods in operating government and their increasing demand for greater performance accountability in government during the last 30 years (Business Roundtable, 1999; Fosler, 1990; Waddock, 1994) would make business leaders likely supporters of state performance funding. Hence, we also interviewed the president or top lobbyist for a major state business association.

The interviews were semi-structured. While using a standard protocol, we adapted it to each interviewee and to the material that emerged during an interview. All interviewees were promised confidentiality, and we masked their institutional and occupational identities when quoting them.

The interviews were transcribed,[9] entered into the Atlas.ti qualitative data analysis software system, and coded. We also entered into Atlas and coded documentary materials if their format allowed it. Our coding scheme began with an initial list of "start" codes drawn from our conceptual framework, but we added and altered codes as necessary as we proceeded with data collection and analysis. To analyze the data, we ran queries in Atlas based on our key coding categories. Using this output, we created analytic tables comparing perceptions of the same actor, motive, event, or context by different interviewees or data sources. In the event of any major divergences between different accounts, we conducted additional interviews to resolve those discrepancies.

7. Findings

We found that the theories of action espoused by the state-level advocates of performance funding in Indiana, Ohio, and Tennessee are weakly articulated, with significant gaps in the specification of policy instruments, intermediate institutional changes, obstacles, and unintended impacts. The espoused theories of action focus on a policy of incentivizing colleges financially and providing information to colleges on state goals in order to secure their compliance. State-level advocates put much less emphasis on other possible policy instruments, such as providing information to the colleges and the public about how the colleges were doing on performance indicators and building up institutional capacity to engage in organizational learning and change. Moreover, performance funding advocates usually do not specify desired institutional changes to secure the student outcomes desired.[10] Finally, advocates pay somewhat limited attention to possible obstacles to the effective operation of performance funding or to possible unintended impacts. All of these findings are in considerable contrast with state and federal K-12 performance accountability.

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[9] A few interviews were not transcribed either because the interviewee declined being recorded or because our tape recorder failed. In these cases, we relied on handwritten notes.
[10] We would argue that this lack of specificity is good, because it leaves more room for tailoring solutions to institutional contexts and involving faculty in institutional decision making.

7.1 Policy Instruments Envisioned

The policy implementation literature has demonstrated how policymakers can and do use a wide variety of policy instruments in order to secure the acquiescence of their policy targets, whether implementing organizations, clients, or other actors (Anderson, 2011; Honig, 2006; Howlett et al., 2009; Massy, 2011; Matland, 1995; McDonnell & Elmore, 1987; Stone, 2012). As noted, based on the statements of performance funding advocates and consideration of their policy goals, four policy instruments appear to be most relevant to performance funding: financial inducements; provision of information to colleges about state goals for performance funding; provision of information on the performance of individual institutions to the institutions and the public; and building institutional capacity for organizational learning and change. Below we analyze the degree to which each of these policy instruments is indeed espoused by the advocates and implementers of performance funding in our three states.

Financial inducements. In all three states, the espoused theories of action for performance funding focus most strongly on financial incentives as the means to secure the intended goals of performance funding (Authors' interviews IN PF2 #1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12; OH PF2 1, 2, 4, 5, 12; TN PF2 #1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 13, 14; Ohio Board of Regents, 1996, 2008). Typical of statements by state-level advocates of this theory of action was this comment from a state higher education official in Tennessee:

> [T]o say it bluntly, when you get the money right, when you get the dollars right, I think that creates proper incentives. … I mean, it is now quite clear the production of those outcomes—whether it's degrees or certificates, workforce training, whatever it is—those translate into dollars. (Authors' interview TN PF2 #1)

Similarly, a state higher education official in Indiana noted:

> The state wants higher graduation rates, the state wants more research dollars coming in, the state wants a more efficient higher ed system, and so they would say, "If you do these things that align with our policies, then we will try and get you some more money for doing that." It's a simple financial incentive model. (Authors' interview IN PF2 #1)

As Table 3 shows, there is strong evidence of the espousal of financial inducements for both PF 1.0 and PF 2.0 programs. (Note that in this table and in all that follow, "high" indicates our judgment that there is evidence that state-level performance funding advocates put considerable importance on the particular theory of change under discussion.)

Table 3
Degree of Importance Put on Financial Inducements as Part of Espoused Theory

Program	Indiana	Ohio	Tennessee
PF 1.0	High	High	High
PF 2.0	High	High	High

Provision of information about state goals for performance funding. In all three states, as Table 4 shows, there is significant evidence of intention to use the provision of information about the goals and purported methods of performance funding as a means to persuade colleges of the importance of improving those student outcomes of particular interest to the state and to catalyze institutional change (Authors' interviews IN PF2 #1, 2, 3, 4; OH PF2 #1, 4, 8; TN PF2 #1, 10; Indiana Commission for Higher Education, 2007a; Lubbers, 2011).

An Indiana state higher education official described how the Indiana Commission for Higher Education saw providing information about the state's goals for its 2009 PF 2.0 program as a means to shape institutional behavior:

> We really worked hard to [implement performance funding] in partnership with the institutions. [When the previous commissioner of higher education] was here, he worked with all of the presidents and all the institutions to try to get them to buy into this. We've continued to acknowledge their concerns as we refine the metrics. And even most recently, at the end of the last budget session, [we] met with all the presidents again to talk to them about the formula that we had and how we could make it better in the upcoming session. So we've tried to address their concerns. (Authors' interview IN PF2 #2)

The commission issued a series of PowerPoint presentations, memos, press releases, YouTube videos, and interviews informing the public about the commission's goals for the 2009 performance funding formula (Lubbers, 2011; Stokes, 2011). The commission also employed HCM Strategists, LLC, a consulting firm based in Washington, DC, to publicize and promote many of its initiatives.

In Tennessee, information about the state's goals for the new funding formula was provided to institutions prior to and during the implementation of the new funding formula (Authors' interviews TN PF2 #1, 10; Tennessee Higher Education Commission, 2008). Prior to the enactment of the 2010 program, the Tennessee Higher Education Commission was proposing a planning year in which, among other activities, the state would conduct a policy audit that:

> … serves as a diagnostic tool for policies and resources that appear to be misaligned in terms of the stated goal; promotes clear and broad understanding of existing barriers to increased degree production by our public postsecondary institutions; identifies priorities for change; and builds awareness of issues and enthusiasm for change at the system and campus levels. (Tennessee Higher Education Commission, 2008, p. 6)

In addition, the commission also proposed a variety of other devices to "ensure buy-in, promote project awareness, and sustain momentum throughout the year" (p. 8). One of them involved communication with university system boards:

> We will seek to have MOA-TN [Making Opportunity Affordable-Tennessee] placed as an information item on the regularly-scheduled agendas of the Tennessee Board of Regents, University of Tennessee Board, Tennessee Independent Colleges and Universities Association (TICUA), and THEC. Project leadership will also be available for meetings of presidents' councils and other functional groups, as warranted. (Tennessee Higher Education Commission, 2008, p. 8)

During implementation of the 2010 PF 2.0 program, the state supported conferences called "College Completion Academies," during which institutional representatives learned about recommended practices for increasing retention and completion on their campuses and also about the state's goals for the new funding

formula. A state higher education official noted: "[T]hrough those strategies [developed at the Completion Academies], we've tried to communicate the goals of the master plan and how the funding formula plays into all of that" (Authors' interview TN PF2 #10; see further discussion of the College Completion Academies below).

Finally, in Ohio, the Chancellor of Higher Education and the Board of Regents staff consulted extensively with the higher education institutions in developing the new 2009 PF 2.0 program, thus communicating the goals and methods of the new program (Authors' interviews OH PF1 #1; OH PF2 #1, 2, 10; Fingerhut, 2012, p. 10; Ohio Board of Regents, 2008a, 2008b, 2008c, 2008d; Petrick, 2012, p. 284). Chancellor of Higher Education Eric Fingerhut (2012) wrote:

> The Board of Regents took a two-pronged approach to garnering the support of college and university leaders for performance-based funding. First, we talked extensively with presidents and their boards of trustees to convince them of the importance of redesigning the formula. … Meanwhile, Vice Chancellor of Finance Richard Petrick and his capable staff sat down with the chief financial officers of each institution to work on the technical aspects of the formula. … Rich kept revising the formula until the CFOs became confident that they understood the system and that it was as fair as possible given the very different types of institutions that the formula covered. (p. 10)

Still, this effort to reach out to and persuade college and university administrators and faculty was not as complete as it could have been. As an Ohio state higher education official noted:

> I would have loved to have sent an email, a three-paragraph email to all of the faculty in the state saying, "Hey, we want to fund student success. We hope everyone does a better job and I hope you can embarrass us with your success to the point where it stretches every resource the state has." But I was not permitted to do that. The Chancellor would not have been able to do that either because of the tradition that the campuses, the institutions, are independent. They have their own Board of Trustees, they hire the President, and the Board of Regents is a coordinating body, and we generally coordinate macro-level state policies. Don't tell us what to do, so we didn't have the history of the tradition or the authority to do that. (Authors' interview OH PF2 #1)

Table 4
Degree of Importance Put on Informing Colleges About State Goals
as Part of Espoused Theory

Program	Indiana	Ohio	Tennessee
PF 1.0	Medium	Medium	Low[a]
PF 2.0	High	Medium	High

[a]We found no evidence that advocates of the 1979 Tennessee PF 1.0 program espoused, as an explicit theory of action, persuading institutions about the validity of state goals for the program. However, we did find evidence that the Tennessee Higher Education Commission dialogued with the institutions over several years about educational goals and the indicators and measures for performance funding before officially enacting the PF 1.0 program in 1979 (Bogue, 2002; Bogue & Troutt, 1977; Authors' interviews).

Provision of information about institutional performance. As Table 5 shows, there is also some evidence that performance funding advocates in Indiana, Ohio, and Tennessee envisioned that informing the colleges and the public about how the colleges were doing on performance indicators could be a way to secure improvements in performance (Authors' interviews IN PF2 #2, 3, 6; OH PF2 #1; TN PF2 #1, 2, 3, 10; Fingerhut, 2012; Indiana Commission for Higher Education, 2007a, p. 14). Typically, the intended targets were senior administrators in the colleges and universities; faculty and middle-level administrators did not seem to be important targets for this information.

In Tennessee, a state higher education official suggested that publicizing information about institutional performance and catalyzing status competition was certainly something the creators of the state's 2010 PF 2.0 program expected, if not directly intended:

> [W]e had to be careful, and we had to diplomatically talk about [how] this wasn't intended to pitch one school against the other 'cause it's not that. … So we probably never explicitly set it that way, but I don't think there's any doubt that that's what this model represents, and that is on balance a good thing. … That's what produces the institutional behavior change we just talked about, the fact that they're competing with one another and the fact that their money has to be re-earned every year. (Authors' interview TN PF2 #1b)

However, this effort was made in connection with the 2010 PF 2.0 program and not its 1979 PF 1.0 precursor. In the case of the latter program, a former state higher education

official noted that providing information on institutional performance and catalyzing status competition among institutions was not an espoused theory for performance funding advocates but rather something that emerged in practice:

> That was not at the initiative of the higher education commission; rather, the goal was to have better performance, to focus on improvement, to focus on quality and student outcomes. That was our goal, not to make press releases on how well different institutions performed, but nonetheless, the college[s] that had the highest performance rating in the state—and everybody knew what everybody's performance was—typically do a press release and say we have the highest performance in the state. So the actual scores became very public, and the performance became very public, and as you know, shining light on either high performance or low performance is likely to affect how institutions behave. (Authors' interview TN PF2 #3)

Another former state higher education official in Tennessee reiterated:

> I suppose that you might argue that there was a little bit of peer pressure involved in this, too, in that there is an incentive for a campus to want to do well because you know that all the other campuses in the state, both two-year and four-year, are submitting performance data as well. So I may argue that there would be a modest … what I call a shame factor involved in it, okay, that you know, we want to do our best because we know everybody else is working on this, too. (Authors' interview TN PF2 #2)

However, the same official was careful to point out that this was not necessarily the intent of the program's founders:

> I want to be careful about the use of the word "competition" because our policy did not make institutions compete against one another. It was not a win/lose scenario. You were competing against yourself. (Authors' interview TN PF2 #2)

Meanwhile, in Ohio, there is stronger evidence that the provision of information about institutional performance was envisioned as a way to spur institutional action. The state chancellor for higher education stated his interest in using information provision as a channel for program effects in the case of the 2009 PF 2.0 program:

It is important to note, however, that we still published the
actual results achieved by running the new formula against
the available completion data. In this way, everyone would
know the completion rates at each school and the impact
they would have on funding if the formula were fully and
completely implemented. It was always my hope that this
information would be as big a spur to reform on campuses
as the funding changes themselves. (Fingerhut, 2012, p. 12)

Moreover, in the case of the 1995 PF 1.0 program, Ohio started generating in 2000 an
annual performance report that provided statewide, sector-level, and campus-level
information about key statistics, such as graduation numbers.[11] The state did this at the
prompting of Governor Robert Taft, who had written the following to Roderick Chu, the
chancellor of higher education:

I would like to call upon the Ohio Board of Regents to
review the feasibility of publishing, on an annual basis, a
report that outlines college and university performance
measures, including graduation, transfer, and retention
rates, and average time and credit to degree, and other
appropriate measures of student success. … I believe an
annual report of this nature could be beneficial in a number
of ways. … Finally, this report could serve as benchmark
for colleges and universities to help identify areas of
strength or weakness. (Taft, 1999)

The reports broke down performance data by individual campus, and all campuses had
access to all of the data, both theirs and that of other institutions (Ohio Board of Regents,
2000; Authors' interviews OH PF2 #1f, 5).[12]

Finally, in a more muted vein, Indiana state higher education officials noted that
the state did make some efforts to use provision of performance information to catalyze
change (Authors' interviews IN PF2 #3, 6):

Graduation data was much, much more important to the
commission than it was to anybody else. And so we would
put that together and share it with institutions and

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[11] For the 2000 to 2006 performance reports, see https://www.ohiohighered.org/node/227.
[12] The extent to which these performance reports were seen as a way of implementing performance funding
is not entirely clear. Taft's (1999) letter and the first performance report (Ohio Board of Regents, 2000) do
not mention performance funding or the Success and Performance Challenge programs. Hence, the
connection is likely but not certain.

> encourage them to share it with their boards, to share it
> with their faculty. Some did; some didn't. It's really
> important but difficult thing to do is to get buy-in fairly
> deep in the whole system. (Authors' interview IN PF2 #6)

Still, it is clear that this policy instrument has not been highly developed. For example, an Indiana state higher education official acknowledged:

> We have not, and I put this in quotes, "exposed the
> differences in a highly visible way." … You could go on
> our website or the institution website and find out a lot of
> information about graduation rates. But we've not like had
> a big mass media campaign where we call out, "You're
> doing a terrible job, and you're doing a really good job."
> (Authors' interview IN PF2 #2)

While it is clear that the advocates and implementers of performance funding did envision to some degree that data on institutional performance could spur institutional improvement, it is also clear that this possible avenue of action was conceived of in limited terms. Reports were issued but, for the most part, were not widely and consistently publicized. Moreover, there is little evidence that there was strong awareness of either the importance or the difficulty of informing faculty and middle-level staffers as well as senior administrators.

Table 5
Degree of Importance Put on Informing Colleges About Institutional Performance as Part of Espoused Theory

Program	Indiana	Ohio	Tennessee
PF 1.0	Low	Medium	None
PF 2.0	Low	Medium	Low

Building institutional capacity. We found rather limited evidence that state-level advocates envisioned building institutional capacity for organizational learning and change as a means by which performance funding could improve institutional performance, as Table 6 shows. We were particularly interested in whether state-level advocates envisioned the importance of state support to build up the capacity of

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institutions to engage in organizational learning and change, whether through state funds for enhanced institutional research offices or information technology capacity, training for college staff in how to analyze student outcomes data, discussion of best practices for improving student outcomes, or funds to try out new approaches.

In the case of Tennessee's 2010 PF 2.0 program, the Tennessee Higher Education Commission, with support from Complete College America, operated "College Completion Academies," which were two-day conferences held by advocates and implementers of the state's new 2010 funding formula (Authors' interviews TN PF2 #5, 10, 13; SPEC Associates, 2012a).[13] Several staff members from each participating institution attended the academies to learn about the state's master plan for higher education and institutional practices recommended by experts in the main areas of concern to the institutions attending (Authors' interview TN PF2 #10). As a state-level higher education official described:

> [W]e invited content experts on things that each institution had told us that it wanted to work on. So if it was advising, we had somebody that we knew of from a campus in the nation that had some kind of an innovation there that they could talk about. If it was approach to learning support, remedial/developmental instruction, we brought those people in. So the institutions had two days of sort of deep introspection with itself, guided by a content expert and an institutional facilitator that was assigned to them to kind of develop these institutional goals and strategies that were aligned with the state master plan, which is called the "public agenda," and the strategic plan for its system. (Authors' interview TN PF2 #10)

These conferences aimed to enhance the capacity of institutions to perform well under the new funding formula by assisting them in developing strategies to improve retention and completion. A state-level higher education official said that the academies were something that the state was thinking about early in the process of rolling out the new funding formula: "We applied for and got … this Complete College America grant, so the academies were the first step, and the content experts and the sharing of institutional

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[13] The College Completion Academies were sponsored by the Tennessee Higher Education Commission in partnership with the Tennessee Board of Regents, the University of Tennessee system, the governor's office, and the Tennessee Business Roundtable (SPEC Associates, 2012a, p. 4).

practices" (Authors interview TN PF2 #10). This grant indicates the likelihood that the new formula's supporters intended the academies to be a form of capacity building designed to make participating institutions perform well on the program's indicators. But beyond the Completion Academies, we found no evidence that the new funding formula's supporters envisioned providing institutions with additional funding or any other resources to develop their capacity to perform well under the formula.

In Ohio, the advocates of performance funding did envision capacity building to a degree, particularly in the case of the 1995 Challenge programs. An Ohio state higher education official described an effort on the part of the state to aid institutions to meet the data demands of performance funding:

> We created this longitudinal data system in 1998 that gave
> every campus 24/7, 365-day-a-year access to their data, and
> that helped everybody a lot. … We've certainly promoted,
> on the research side, efficiencies through the creation of the
> state's ISP system, ONET [Ohio Network for Education
> Transformation], and the super computer systems, so there
> were enhancements to centrally design enhancements to
> both computer capacity and our internet lines that improved
> communication. So communication improved the sharing
> of data for research and for other purposes, so that that
> certainly was the case. (Authors' interview OH PF2 #1)

Moreover, this official noted that for the 1995 Challenge programs—though not for the more recent 2009 program—the state did sponsor the exchange of best practice ideas:

> We were looking forward … to having a series of state
> colloquia on best practices for student success so that we can
> get provosts and the academic folks and faculty together in
> all of these settings or whatever, that we could share best
> practices and help everybody improve along the way. But I
> don't think that happened after I retired. It's what we did
> with Success Challenge. … So that's a very good
> mechanism to do it, I felt. I just don't think we ever did it
> with the current formula. (Authors' interview OH PF2 #1)

The emphasis on enlarging institutional access to statewide data continued into the 2009 performance funding program in Ohio. For example, a state higher education official noted:

> We also gave the campuses the SQL [Structured Query Language] that drove those [statewide] data ... so that they didn't have to hire small armies of programmers to try to do their own specific work to understand what was going on. (Authors' interview OH PF2 #1f)

In addition, the state has supported Ohio community colleges in taking part in various curricular innovation and capacity building initiatives of the Lumina and Gates foundations, including Achieving the Dream and the Developmental Education Initiative (see http://www.deionline.org). However, while these initiatives were seen as helping to improve institutional performance, they apparently were not seen as components of an effort to build institutional capacity to do well specifically on the state performance funding metrics (Authors' interview OH PF2 #1f).

In Indiana, when we asked about building institutional capacity, state officials did not indicate that they envisioned it as a component of performance funding that could spur improvements in college performance (see Authors' interviews IN PF 2 #11, 12; OH PF2 #1, 2). For example, an Indiana state legislative official stated:

> It's just like any other business—we don't think that we need to give them money to, for example, come up with a plan to do what they ought to already be doing. And so we know they're spending their time trying to develop some kind of a model of how they want all this education process at their institutions to work, so we're just assuming that they're refocusing their mission statements and their goals and objectives so that they can come in compliance with this. (Authors' interview IN PF2 #11)

Still, there is some evidence that the state has supported sharing information about best practices. As one college dean explained:

> [T]hey've encouraged institutions to take a look at best practices. I've not been to the State Commission for Higher Ed's quarterly meetings or anything, but they often are trying to identify or encouraging people to present best practices that's evidence-based and do presentations and [are] taking a look at those things. (Authors' interview IN PF2-CC2 #13)

Moreover, the Indiana Commission for Higher Education did state in 2007: "A *statewide forum* should be held each year to allow Indiana's colleges and universities to share strategies, best practices, evaluation and research on persistence and completion efforts" (Indiana Commission for Higher Education, 2007b, p. 6).

As can be seen, the three states have taken some steps to build up the capacity of institutions to meet the demands of performance funding. However, these steps did not seem to arise from a clearly articulated and well developed espoused theory of action involving capacity building. Although there is certainly some evidence of a view that it is important to build the capacity of institutions to analyze data and identify best practices, we did not see evidence that performance funding advocates clearly and strongly envisioned that performance funding would work in part through state support to build up a college's capacity to engage in organizational learning and change, particularly in the form of enlarged and enhanced institutional research offices, improved faculty and staff research skills, or enlarged information technology capacity.[14] Furthermore, we saw no discussion of how colleges might need technical assistance and funding to try out new programs and policies to improve their performance.

Table 6
Degree of Importance Put on Capacity Building as Part of Espoused Theory

Program	Indiana	Ohio	Tennessee
PF 1.0	Low	Medium	Low
PF 2.0	Low	Medium	Medium

7.2 Institutional Changes Desired

State officials in Indiana, Ohio, and Tennessee did have some idea of the changes in college policies and practices they thought colleges might make in pursuit of better student outcomes. However, as Table 7 shows, in all three states there is great reluctance to specify specific college policies and practices (Authors' interviews IN PF2 #3, 9, 10,

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[14] However, as we have seen, there was evidence in Ohio of a desire to improve the data analysis capacities of colleges by providing centralized infrastructural support at the state level.

12; OH PF2 #1, 2, 7, 12; TN PF2 #1, 2, 7, 10, 11; Indiana Commission for Higher Education, 2008, pp. 7–11). For example, an Indiana business leader noted:

> I think they … set the goals and metrics up and left it to the colleges to figure out how they wanted to focus internally on meeting those goals and making progress on the desired improvements. … I think it's appropriate to say we're going to reward improvement and not reward you in this part of the overall funding scheme if you don't improve. But then beyond that, I think it's appropriate to step back and let them figure out how to accomplish that. (Authors' interview IN PF2 #10)

Table 7
Degree of Specification of Institutional Changes as Part of Espoused Theory

Program	Indiana	Ohio	Tennessee
PF 1.0	None	None	None
PF 2.0	None	None	Low

Broad, not specific, mandates for change. When advocates of performance funding discussed what kinds of changes they thought institutions should make, they focused on broad reforms (Authors' interviews IN PF2 #4; OH PF2 #1, 2, 7, 12; TN PF2 #5, 14, 21; Indiana Commission for Higher Education, 2008, pp. 7–11; Ohio Board of Regents, 2008). For example, the Indiana Commission for Higher Education offered a list of recommendations to improve college retention and completion in the context of performance funding demands. Most of them were broad, such as "identifying a common approach toward prior learning assessment, which is critical to a subset of returning adult students" (Indiana Commission for Higher Education, 2008, p. 11). Similarly, an Indiana legislative official sketched a very general change agenda for higher education institutions:

> And so one of the things that we really wanted is to make sure the universities could [do], when they took an incoming freshman, they could say, "Here's a clear path to graduating and graduating on time." So for the university that means not only do they engage with the student, but also they design their curriculum and their course offerings

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to ensure that students can get the courses they need within four years if that's what they choose, or two years if it's a two-year university, and can get out, and not have to have any situations where a student could get done on time, but the courses aren't available or they didn't know that what they needed to do in order to do it. (Authors' interview IN PF2 #4)

Meanwhile, in Tennessee, a state-level higher education official described a similarly general expectation for institutional change:

I think things like the whole transfer and articulation, I think that's going to be the one to watch. Just for the sake of distinction, there really had not been much of an incentive for the campuses to really make that happen, you know, for the universities to recruit and try to help students coming in from an outside institution. And of course now the incentives are there because the more credit hours a student has under his or her belt, the more value they are to the institution. (Authors' interview TN PF2 #5)

Furthermore, a state legislative official laid out some broad changes that advocates of the 2010 program had in mind:

As the discussion began, we expected the postsecondary folks to implement a number of policies. One, in reference to admissions, and some of them have done that. Two, in the sense of developing a partnership at the community college, you know, with remedial and/or particular classes. We also had in that statute dual enrollment on the postsecondary level. (Authors' interview TN PF2 #14)

Reluctance to specify institutional changes. As must be evident, the state-level advocates of performance funding were reluctant to demand specific institutional changes (Authors' interviews IN PF2 #3, 9, 10, 12; OH PF2 #1, 2, 7, 12; TN PF2 #1, 2, 7, 10; Indiana Commission for Higher Education, 2008, p. 5; SPEC Associates, 2012b, p. 31). As a Tennessee state higher education official noted:

[O]ne thing we always steered clear of was ever saying to a school, here's how you ought to do something. You know, we never try to have this be a prescriptive tool. It's really more, again, to try to get the incentives lined up correctly and then let the campus president, along with his or her

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staff, figure out how best to go about achieving whatever the end goal is. And so never really try at all to dictate, if you will, institutional behavior. (Authors' interview TN PF2 #1)

Instead, Tennessee officials expect colleges and universities to conduct self-analyses to identify obstacles to student completion and then decide on their own what corrective measures are appropriate (Authors' interviews TN PF2 #1, 8, 9, 10, 14). For example, a Tennessee state-level higher education official observed:

> I guess we assumed that something like the following might happen. Institutions might say, "Well, if we're now being funded for course completion rather than course enrollment, let's study why it is that students drop out, why and when and how much. What is the ratio of beginning of term enrollment to end of term enrollment? So how much improvement do we really need to make?" And we thought that campuses would appoint committees to have consensus about the kinds of practices that would lead to better course completion, and that kind of thing. (Authors' interview TN PF2 #10)

Similarly, an Indiana state executive branch official explained that—although the state expects institutions to take a hard look at how they are spending money and find ways to cut costs in order to streamline the education process and meet state funding goals—Governor Mitch Daniels (2005–2013) did not want to tell the institutions what to do:

> The governor was never going to tell people what their business was and how to run their business better. In fact … we avoided at all costs engaging kind of in the tuition debate because at least from the governor's perspective it's really up to the institution to make that determination, and up to the Boards of Trustees. We select very highly qualified trustees and give them their marching orders, and then we have an expectation if they're going to make it work. … So we didn't try and get into their business of what they were going to do, but we definitely highlighted places where we thought there were areas where resources could be captured in a legitimate way. And we used a lot of the Delta Cost Project information, and we worked really closely with our Commission for Higher Education and our Office of Management and Budget to kind of express those things. (Authors' interview IN PF #12)

Reasons for reluctance to specify changes. One of the reasons why state officials have been loath to dictate to higher education institutions how they should meet performance demands is that they believe it would be seen by colleges as overreaching by the state and would spur institutional resistance to performance funding (Authors' interview OH PF2 #1). An Ohio state higher education official described how the Board of Regents was constrained by the state's decentralized governance structure and history of great institutional independence:

> We called it the Board of Regents, a coordinating body. We had no authority over campuses. And in fact if we showed up at a [campus] board of trustees meeting … without an invitation, we would be looked upon skeptically, if not worse, by our colleagues. And we did not want to intervene or micromanage campuses. … The campuses, the institutions, are independent. They have their own board of trustees; they hire the president. The [state] Board of Regents is a coordinating body, and we generally coordinate macro-level state policies. … So we didn't have the history of the tradition or the authority to do that [dictate institutional policy]. (Authors' interview OH PF2 #1)

Another reason why state officials are reluctant is that they themselves are not certain of the best steps to take. An Ohio state higher education official noted:

> We did not know what campuses should do to achieve the performance goals. If we did know, with certainty, we would have told them. This is to acknowledge that we knew we were starting an experiment, with the goal of inducing campuses to develop new programs and policies in response to the new incentives. (Authors' interview Ohio PF2 #1e).

We would argue that there is ample justification for the hesitation of state officials to specify in close detail what changes colleges and universities should make. Colleges are complex institutions with varied missions and a professional staff (faculty and others) strongly motivated by a desire for occupational autonomy and voice in governance (Clark, 1983; Schmidtlein & Berdahl, 2011). To ignore this reality would likely poison the attitudes of the faculty and increase the probability of institutional changes that are ineffective and even counterproductive. Moreover, the complexity of higher education

institutions means that forceful intervention from outside could well result in policies that, though well intended, produce very substantial, negative unintended impacts.

7.3 Attention to Possible Obstacles

The advocates of performance funding did anticipate that it would run into certain obstacles—particularly institutional resistance—and took steps to mitigate them. At the same time, as Table 8 shows, their consideration of obstacles has not been as extensive as it could be.

Certainly in Indiana, Ohio, and Tennessee, performance funding advocates were concerned that the advent of PF 2.0 could result in big changes in college funding and provoke strong institutional resistance (Authors' interviews IN PF2 #2, 3, 6, 12; OH PF2 # 9, 10; TN PF2 #1, 2, 7, 8). For example, a Tennessee state-level higher education official said: "[A]ny change of this magnitude was going to be a tough sell in some way … there's no more base, effectively. … And so we knew there would be resistance to that idea" (Authors' interview TN PF2 #1). In order to combat possible obstacles, Tennessee and Indiana decided to phase in PF 2.0 gradually (Authors' interviews IN PF2 #3, 12; TN PF1 #21, 23, 25). Policymakers in Tennessee opted to phase in performance funding over three years in order to give campuses an opportunity to see how the program would work before encountering the full brunt of the new system (Tennessee Higher Education Commission, 2011). Meanwhile, Indiana's policymakers chose to increase the percentage of funding attached to the program gradually (Indiana Commission for Higher Education, 2011b; Stokes, 2011). An Indiana state higher education official stated:

> I think the goal of our performance funding has been to
> slowly enact change in how we finance higher education
> without shaking the overall financing of higher education to
> its core. We had probably learned, from what I understand
> in the past, that other states tried to change it overnight.
> They tried to go from one way of higher education to
> another way very quickly. So I think Indiana's first goal
> was to get as much buy-in as possible when going to a
> performance funding formula or performance-based
> funding mechanism. And that buy-in included an approach
> that really moved to performance funding over time and
> really didn't just change it overnight. (Authors' interview
> IN PF2 #3)

In Indiana, performance funding advocates also expected resistance from institutions that believed that the state performance funding indicators did not effectively capture their institution's performance (Authors' interview IN PF2 #2). A state higher education official noted:

> We knew that once you got to the point where you had a pool of money and you were dividing it up, and based on these metrics, there would be people who would be making their case for why it was not fair to them in some way. So that's why we've been so focused on trying to acknowledge mission differentiation, so that we understand that for the community college, for example, getting those students to persist is very difficult as it is for our regional campuses. (Authors interview IN PF2 #2)

In order to address resistance, the Indiana Commission for Higher Education made a major effort—in the eyes of a leading official—to take into account institutional perspectives in designing the performance funding metrics:[15]

> We really worked hard to do this in partnership with the institutions. … We've continued to acknowledge their concerns as we refine the metrics. And even most recently, at the end of the last budget session, [we] met with all the presidents again to talk to them about the formula that we had and how we could make it better in the upcoming session. So we've tried to address their concerns. (Authors' interview IN PF2 #2)

Meanwhile, in Ohio, advocates of the 2009 PF 2.0 program feared that state funding for higher education might fluctuate too much initially, due to the ups and downs of the state budget. Big funding fluctuations, it was feared, would undermine support for performance funding, according to a state higher education official:

> It's easier to implement a program like this when funding is stable than when it's not. And, of course, that's the risk for the next couple of years. If, God forbid, we have cuts of any size or significance, it gets very hard to further penalize people for other reasons. So I think stable funding is my biggest challenge. The formula is distributing a fixed pot of money, so it's a zero sum game. So the size of the total pot

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[15] Institutional officials were not always so convinced that the state had reached out enough. See Dougherty, Jones, et al. (2013).

really helps build support, if you get what I mean.
(Authors' interview OH PF2 #9)

Hence, Ohio chose to include a "stop-loss" provision that limited how much funding colleges might lose from one year to the next in the first few years of the new performance funding program (Authors' interview OH PF2 #9, 10; Fingerhut, 2012; Ohio Board of Regents, 2011a, 2011b, 2011c).

Despite the efforts to counteract resistance described above, it is still noteworthy how some important organizational obstacles identified in the research literature on performance funding were not anticipated by the state advocates of performance funding. They include insufficient institutional capacity to engage in organizational learning in the service of performance funding goals and uneven knowledge within institutions about performance funding (Dougherty & Reddy, 2013). These are important obstacles, and the fact that they were not anticipated by the advocates of performance funding in our three states could carry considerable consequences.

First, colleges differ in their institutional capacity to engage in organizational learning, and there is evidence that the degree of their capacity affects their ability to respond effectively to performance funding (Dougherty & Reddy, 2013; see also Dowd & Tong, 2007; Witham & Bensimon, 2012). For example, an evaluation of Washington State's performance funding program observed:

> Even at colleges with larger IR [institutional research] departments, college personnel suggested that the achievement point database does not provide enough information to pinpoint areas of weakness, let alone design improvement strategies or track the progress of ongoing student retention efforts. As a result, colleges have to use their own data to do such analyses, and there is wide variation in the capacity of colleges to do so. (Jenkins, Ellwein, & Boswell, 2009, p. 28)

Second, with regard to uneven knowledge about performance funding within institutions, J. C. Burke (2002, pp. 63–64), in a survey of two-year and four-year college administrators in five states with performance funding, found that only 40 percent of the department chairs and 58 percent of the academic deans were "very familiar" or "familiar" with performance funding, compared with 88 percent of the top

administrators.[16] This difference in awareness has important consequences. Colleges cannot meet performance demands only through actions ordered by senior administrators. They must also catalyze the concerted action of the faculty, which in turn requires that faculty understand and accept performance funding (Dougherty & Reddy, 2013).

Table 8
Degree of Specification of Possible Obstacles as Part of Espoused Theory

Program	Indiana	Ohio	Tennessee
PF 1.0	Low	Low	Low
PF 2.0	Medium	Medium	Medium

7.4 Anticipation of Possible Unintended Impacts

We found that performance funding advocates and implementers in Ohio and Tennessee—but Indiana less so—did consider possible unintended impacts of performance funding and took steps to counteract them, as Table 9 shows. They were particularly concerned about how performance funding might weaken academic standards and lead to restriction of college access for less advantaged students.

In all three states, state-level performance funding advocates expressed concern that it might result in a *reduction in academic standards*, with faculty grading more leniently in order keep up course completion and colleges steering students into easier degree programs that would generate higher degree completion rates (Authors' interviews IN PF2 #2, 3; OH PF2 #1, 8, 9, 10, 12; TN PF1 #8c; TN PF2 #3, 10, 11, 13; Fingerhut, 2012). An Ohio state legislative official noted:

> One of the things that concerned me that sometimes comes
> up about course completion is that you might get a
> weakening of academic standards. Are you going to get
> professors or adjunct professors or teaching assistants, you
> know they know this is what you have to do to get this
> person that piece of paper. I haven't seen that yet, but that

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[16] Institutional interviews we have been conducting as part of our study on the implementation of performance funding in Indiana, Ohio, and Tennessee have produced very similar findings.

was definitely a concern that was raised when we talked about this in 2009. (Authors' interview OH PF2 #8)

Tennessee decided that its preexisting PF 1.0 program (established in 1979) would function as a quality assurance program that would combat this danger (Authors' interviews TN PF1 #8c, PF2 #13). Ohio decided that faculty professionalism would be the main counter to this danger. Ohio's chancellor of higher education declared:

> Even if such pressure did materialize, I do not think the faculty will submit to it. Faculty members are highly educated professionals with a strong sense of commitment to student success and intellectual integrity. They should not pass students who have not earned the credit, and any who do so should be dealt with through appropriate disciplinary procedures. (Fingerhut, 2012)

However, Ohio also has the means to determine if academic standards were weakening and could take steps. A state higher education official noted:

> We had other tools to monitor this possible problem. We annually reported on passage rates in all professional schools at all levels. … We could monitor passage rates (and the N's upon which they were based) to check for possible weakening of standards. If a specific concern was raised, say about a program or professor, we could, using … pre- and post-passage rates and GPAs for students in the targeted areas at the course level to see whether there was any evidence of unexplained spikes in completions or grades. We discussed these tools many times in various statewide consultations. (Authors' interview OH PF2 #1e)

Another possible unintended impact that the state-level advocates of performance funding in Ohio and Tennessee anticipated was that it would lead open-access colleges to *become more selective in admissions* in order to boost their graduation rates (Authors' interviews OH PF2 #1, 9; TN PF2 #1; Fingerhut, 2012). In Tennessee, a state-level higher education official said:

> [W]e put a lot of thought early on into how you balance access, excellence, various sorts of philosophical principles, and we did not want to build a model … where a school could easily … for instance, increase its graduation

rates simply by limiting access of students who may be
tougher to graduate. (Authors' interviews TN PF2 #1)

Ohio met the threat of "creaming" by providing extra funding to their university
main campuses and regional campuses for graduating students who are deemed at risk
(Authors' interview OH PF2 #1; Fingerhut, 2012; Ohio Board of Regents, 2011b,
2011c).[17] Tennessee also provided a premium for at-risk students (focusing on low-
income and adult students) in its formula calculations, and it furthermore weighted the
various performance indicators differently according to the mission and student
composition of different colleges (Authors' interview TN PF2 #1; Tennessee Higher
Education Commission, 2012). Indiana's performance funding program has also provided
institutions with funding based on degrees attained by low-income students or, later, "at-
risk" students (HCM Strategists, 2011; Indiana Commission for Higher Education,
2011a, pp. 7, 9).

Another possible unintended outcome that was anticipated in Tennessee was
mission narrowing, in which areas of college life unrelated (or only tangentially related)
to the outcomes emphasized by the new funding formula may lose institutional attention
and suffer budget and staff cuts (Authors' interview TN PF1 #21). A Tennessee executive
branch official noted:

The other side of that is there are things that matter and
there are things that are important that the university does
… that don't directly relate to student outcomes. But since
we're not funding those things, we'll probably see them
diminish pretty significantly, and that could be a detrimental
or at least a negative effect in this. We'll just have to
monitor that and see. (Authors' interview TN PF1 #21)

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[17] This additional funding applied to PF 1.0 and the earliest version of PF 2.0. Over time this policy was
broadened to include additional funding for all at-risk students, with "at-risk" defined in terms of 24
combinations of income, academic preparation, age, and race (Authors' interview OH PF2 #1e; Ohio Board
of Regents, 2011b, 2011c). However, the state did not provide this funding bonus for community colleges
because simulations indicated that it seemingly would not affect community college revenues one way or
the other (Ohio Board of Regents, 2011a; Authors' interviews OH PF2 #1f). Time will tell whether this was
a mistake. As it is, there is some evidence that some community colleges local officials are contemplating
moving their institutions toward more selective enrollments as they address the demands of the new
performance funding program established in 2013 (Lahr, Pheatt, Dougherty, Jones, Natow, & Reddy,
2014).

As implied by this interviewee, there is no evidence that Tennessee took steps to neutralize this possible unintended impact.

Despite this attention to possible unintended impacts of performance funding, particularly in Ohio and Tennessee, it is still noteworthy that there are a number of unintended impacts that were not anticipated by state policymakers. They include unreimbursed costs to colleges for complying with performance funding demands and a weakening of faculty voice as performance funding strengthens the power of institutional administrators (Dougherty & Reddy, 2013).

To address state performance funding demands, colleges can incur considerable costs. They may need to expand their institutional research capacity (by hiring additional personnel to handle data collection, analysis, and reporting). They may need to train faculty and staff in techniques for analyzing student outcomes data. And they may have to invest in new programs to improve student outcomes (Dougherty & Reddy, 2013). Yet, the state-level advocates and implementers of performance funding in the three states largely did not anticipate and provide for those additional costs.[18]

In addition, there is some evidence that the low faculty awareness of performance funding discussed above also carries an important unintended impact: a diminished faculty voice in academic governance (Dougherty & Reddy, 2013). If faculty members are unaware of performance funding, they are less able to participate in crafting how their college responds to state performance funding demands. This lack of knowledge not only diminishes faculty voice in institutional governance but also increases the possibility that their college's responses may produce unintended impacts due to a lack of awareness of the particulars of instruction and administrative practice known by faculty and mid-level administrators. Again, we saw no evidence that this possible unintended impact was anticipated and responded to by the advocates of performance funding.

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[18] Ohio did so to some extent insofar as the Board of Regents created the Higher Education Information data system and issued yearly performance reports with campus-specific performance data (Ohio Board of Regents, 2000; Authors' interview OH PF2 #1e).

Table 9
Degree of Specification of Unintended Impacts as Part of Espoused Theory

Program	Indiana	Ohio	Tennessee
PF 1.0	Low	Medium	Medium
PF 2.0	Low	Medium	Medium

8. Contrast Between Higher Education and K-12 Performance Accountability

The espoused theory of performance funding for higher education in the three states differs considerably from K-12 performance accountability in its attention to certain policy instruments. As we have seen, state programs for higher education performance funding pay relatively little attention to building up institutional capacity to engage in organizational learning and providing information on institutional performance to either the colleges themselves or the public.

Yet, these practices are important aspects of the espoused theory for K-12 accountability (Dougherty, Reddy, & Natow, 2013). State K-12 performance accountability programs put considerably greater emphasis on capacity building than do their higher education counterparts (Dougherty, Reddy, & Natow, 2013).[19] Indeed, No Child Left Behind (NCLB) requires that schools that fail to meet adequate yearly progress for two consecutive years be funded to work with an external provider to implement a continuous improvement process and to create (or revise) a school improvement plan. As part of the school improvement plan, schools are to set aside at least 10 percent of their Title I allocation for professional development for each year they are identified as in need of improvement (Congressional Research Service, 2001, p. 3; Minnesota State Department of Education, 2004, pp. 23–24). The NCLB waiver process initiated in September 2011 modifies this process by allowing states and school districts more leeway in defining the ways they will support improvements in Focus Schools (McNeil, 2012). Still, the states retain a strong focus on capacity building. Hence, Ohio's application for flexibility states that regional State Support Teams (SST) will:

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[19] Dougherty, Reddy, & Natow (2013) also examine several other differences between performance funding for higher education and K-12 performance accountability.

> … help LEAs [local educational agencies] identify the specific needs that contributed to the identification of the LEA's Focus schools. … Focus schools may receive intensive technical assistance targeted to raising student performance of the lowest-performing subgroups during monitoring by the State Support Team. … [The SST] will selectively check the school's implementation of LEA-selected improvement initiatives targeted at raising student achievement of students who are furthest behind. (Ohio Department of Education, 2012, pp. 82–83)

9. Summary and Conclusions

State governments, policy associations, and foundations are showing great interest in performance funding (Dougherty, Jones, et al., 2013; Dougherty & Reddy, 2013; Harnisch, 2011; Longanecker, 2012a, 2012b; Lumina Foundation, 2011; National Conference of State Legislatures, 2012; Reindl & Jones, 2012; Reindl & Reyna, 2011). Yet, even as interest mounts, the theories of action espoused by the state-level advocates and implementers of performance funding remain strikingly underdeveloped. Even in the case of the three leading states examined here—Indiana, Ohio, and Tennessee— performance funding is conceived largely as stimulating changes in institutional behavior and student outcomes by providing financial inducements and securing institutional buy-in. Less attention is paid to other policy instruments, such as providing information on institutional performance to the colleges and building up the capacity of institutions to engage in organizational learning and change. The states' espoused theories of action for performance funding are, thus, narrower than those for state and federal K-12 accountability programs, which put much more emphasis on information provision and capacity building (Dougherty, Reddy, & Natow , 2013). Moreover, the espoused theories of action for performance funding in the three states miss some important possible obstacles to and unintended impacts of performance funding. Yet, these states— particularly Ohio and Tennessee—have devoted much more effort to carefully devising their performance funding programs than have many other states. We worry about the impacts of performance funding in states that devote far less effort than Indiana, Ohio, and Tennessee to mapping out how performance funding should work.

An espoused theory of action for performance funding that is insufficiently articulated makes it less likely that it will be successful and avoid undue harm. If states do not strongly espouse information provision and capacity building as policy instruments, they are less likely to use them in practice, even if unwittingly. Further, if the states do not have a well-thought-out plan for overcoming the obstacles that colleges may encounter in trying to respond to performance funding, the impediments to success resulting from narrowness in their policy instruments may be compounded. In addition, if states' espoused theories of action do not address important unintended impacts of performance funding, potentially quite serious side effects may go unnoticed or insufficiently averted.[20]

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[20] For a discussion of possible actions states might take to avert these obstacles and unintended impacts, see Dougherty and Reddy (2011, 2013).

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