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. Moreover, the espoused theories of action for performance funding in the three states do not pay enough attention to some 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, Natow, 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.

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). Yet, there is also evidence that colleges differ in their institutional capacity to engage in organizational learning and that these differences in capacity affect their ability to respond effectively to performance funding (Dougherty & Reddy, 2013; Dowd & Tong, 2007; Jenkins, Ellwein, & Boswell, 2009; Witham & Bensimon, 2012).

To understand organizational learning, this study draws on 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;

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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 & Reddy, 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 & 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 & Reddy, 2013). 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 are characteristics of the performance funding program or of the target higher education institutions that impede the ability of those institutions to effectively respond to the demands of the performance funding program. They can take such forms as 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. Many of the difficulties of policy implementation and program sustainability arise from incomplete or inadequately conceptualized policy designs (Howlett et al., 2009, pp. 168–173; 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 unintended impacts 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 until recently 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 changed greatly following the 2013 revision of Ohio's State Share of Instruction formula. It increased the performance funding component of that formula from 10% in fiscal year 2011 to 50% in FY 2014 and 100% in FY 2014 (Dougherty & Natow, forthcoming).

[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
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). The focus of this report is on the PF 2.0 programs.

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 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. Ohio and Indiana established a PF 2.0 program in 2009, followed by Tennessee in 2010 (Dougherty, Natow, Jones, Lahr, Pheatt, & Reddy, in press; 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 exhibit significant gaps in the specification of policy instruments, intermediate institutional changes, obstacles, and unintended impacts in connection with their performance funding 2.0 programs. 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, while advocates do consider a number of possible obstacles and unintended impacts of performance funding, they pay insufficient attention to certain important ones and do not always provide sufficiently thorough defenses against others.

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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 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 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

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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 the state's goals for the new funding formula, as well as recommended practices for increasing retention and completion on their campuses. 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 2.0	High	Medium	High

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 because 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

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information would be as big a spur to reform on campuses
as the funding changes themselves. (Fingerhut, 2012, p. 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
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 2.0	Low	Medium	Low

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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 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).[11] 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)

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[11] 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).

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 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. For example, we saw no evidence of dedicated programs to provide financial support to colleges for improving their institutional research and information technology capacity.

In Ohio, the advocates of performance funding did envision capacity building to a degree. An Ohio state higher education official described how the state began in 1998 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)

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

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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). However, there is no evidence that Indiana policymakers envisioned the need to provide support for building up the capacity of colleges in the areas of institutional research and information technology.

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 will 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.[12] 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 2.0	Low	Medium	Medium

7.2 Institutional Changes Desired

There is a certain lack of clarity about the extent to which state officials anticipated what kinds of changes they wanted colleges to make in their policies and practices in response to performance funding. State officials have expressed considerable reluctance to dictate the academic and student-service policies and practices of colleges. Yet, over the past several years, the states have launched major initiatives that very much aim at shaping the academic and student-service offerings of colleges. Further

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[12] 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.

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compounding the lack of clarity is that these initiatives are compatible with performance funding, but it is also clear they are seen as independent efforts.

State instruction and student-service initiatives. Across all three of our states, state governments have pursued important initiatives to push changes in academic and student-services policies and programs at the institutional level that parallel the goals of performance funding. In Indiana, the state has mandated a 120 credit limit on baccalaureate degrees, taken steps to improve the transferability of general education courses from community colleges to universities, and required colleges to provide new students with a degree map showing what steps to take in order to complete a baccalaureate program in four years (Indiana Commission for Higher Education, 2013a; Indiana State Senate, 2013). In Ohio, the Board of Regents has made efforts to create smoother pathways for student transfer and articulation (Ohio Board of Regents, 2007). Also, the Board chartered a "Complete College Ohio" task force, which made numerous recommendations for campus-level changes such as providing more dual-enrollment opportunities, reforming developmental education, enhancing first-year orientation, improving course transfer and articulation, and adopting more rigorous student advising practices (Ohio Board of Regents, 2012). Finally, in Tennessee, the 2010 Complete College Tennessee Act, which established the new performance funding 2.0 program, also launched initiatives to smooth transfer from community colleges to universities (Complete College Tennessee Act, 2010). Moreover, the state has supported the Developmental Studies Redesign Project, which seeks to reform developmental education (Boatman, 2012).

Reluctance to specify institutional changes. At the same time, state officials reported considerable reluctance to dictate policy and practice to higher education institutions in connection with performance funding (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 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)

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 that state officials have given for reluctance 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 said they are reluctant is that they themselves are not certain of the best steps to take. An Ohio state higher education official stated:

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).

In the end, however, the states have pursued initiatives that, while they may not dictate to colleges what they should do, certainly provide a strong push. And while these initiatives are separate from performance funding, it is also clear that they are seen as interacting with it (see Natow et al., 2014). As a result, we put the degree of specification of institutional changes as at least medium in these three states.

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

Program	Indiana	Ohio	Tennessee
PF 2.0	Medium	Medium	Medium

7.3 Attention to Possible Obstacles

Research we have conducted with administrators and faculty at 18 public institutions in our three states finds that they identified six main obstacles to responding effectively to performance funding demands: student composition; inappropriate PF measures; insufficient institutional capacity; institutional resistance; insufficient state funding to allow program innovation; and insufficient knowledge of and responsibility for responding to performance funding (Pheatt et al., 2014). The advocates of

performance funding did anticipate many of these obstacles 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.

Student composition. State policy designers were aware that colleges and universities with high numbers of students who were poorly prepared, coming from low-income families, not intending to get a degree, or attending part-time would have a more difficult time retaining and graduating students than institutions with better prepared and more advantaged student bodies (Authors' interviews IN PF2 #11; OH PF2 #10). For example, an Indiana state legislative official noted:

> Well, I think the bumps in the road came from the problem that universities would say we don't all fit the same mold. For example, Indiana University at Bloomington has a higher admission standard than Ivy Tech, which is a training and vocational school that also offers two and four-year degrees. [Bloomington] obviously should have a higher completion rate … because they're taking a higher caliber person to start with…. And so those are things that the Commission [for Higher Education] has to adjust the standards to say, "in order for you to fulfill your progress, we need to take into account what kind of a starting student you have." (Authors' interview IN PF 2 #11)

Hence, in all three states, they have weighted completions by less advantaged students more heavily than they did completions by more advantaged students. Indiana has a completion indicator specifically targeted to low-income students. Ohio weights course and degree completions for the university main and regional campuses by whether students are at risk, defined in terms of socioeconomic status, race/ethnicity, and age. And Tennessee has extra weighting for adult learners and low-income students on indicators for credit accumulation and degree production (Indiana Commission for Higher Education, 2013b; Ohio Board of Regents, 2013a, 2013b; Tennessee Higher Education Commission, 2012, 2014). However, the states did not make more extensive efforts to address the difficulties institutions with high numbers of less prepared and less advantaged students faced in graduating those students. For example, they did not move to funnel more funds into those institutions to help them develop more effective programs

for such students. The main exception was the push to improve remedial education in Ohio (Natow et al., 2014).

Inappropriate performance funding indicators. State policy designers were also aware of the importance of matching performance funding indicators and measures to institutional missions (Authors' interviews IN PF2 #2, 3, 5, 6, 11; OH PF2 #2, 7). A state higher education official in Indiana 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)

Consequently, the performance funding metrics were rather different for universities and community colleges, particularly in Ohio and Tennessee. In the case of Ohio and Tennessee, the metrics for universities and community colleges overlapped on some indicators, but for the most part the indicators were different. For example, in Ohio and Tennessee, the performance indicators for community colleges include completion of developmental education and attainment of certificates.

In addition, Tennessee further differentiate its metrics by giving different weights based on an institution's Carnegie classification (Indiana Commission for Higher Education, 2013; Ohio Board of Regents, 2013a, 2013b; Tennessee Higher Education Commission, 2012, 2014). A state higher education official noted:

> [W]e tried to anticipate, okay, if you are a school that's a master's institution that's focused on undergraduate degree production, what kind of model would buttress that mission versus what kind of model would be better tailored to a research institution? And so early on, that's where the weights came from. You know, so we could accomplish mission differentiation or we could accomplish crafting the model to the specifics of an institution through the weights. (Authors' Interview TN PF2 #1)

Institutional resistance. Performance funding advocates in Indiana, Ohio, and Tennessee were concerned that performance funding could encounter strong institutional resistance if it were accompanied by big shifts in funding or the use of indicators that were perceived as unfair to institutions. (Authors' interviews IN PF2 #2, 3, 5, 6, 11, 12; OH PF2 # 9, 10; TN PF1 #21, 23, 24, 25; TN PF2 #1, 2, 3, 7, 8, 9; Lederman, 2009). For example, a Tennessee gubernatorial advisor said: "[T]he institutions that have seen dramatic enrollment growth over a period of years … I think those institutions don't necessarily like the idea of, after they've done nothing but focus on enrollment for several years, all of a sudden for that rule to change" (Authors' Interview TN PF1 #24). Similarly, state officials in Ohio feared that the new 2009 PF 2.0 program might produce big fluctuations in state funding for higher education and undermine support for performance funding. A state higher education official observed:

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

In order to prevent such funding fluctuations and combat possible institutional resistance, the states decided to phase in PF 2.0 gradually and calculate changes in performance based on three-year rolling averages (Authors' interviews IN PF2 #3, 12; OH PF2 #9, 10; TN PF1 #21, 23, 25; Fingerhut, 2012; Ohio Board of Regents, 2011a, 2011b, 2011c). 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). 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). Finally, 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 gave the rationale:

> 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
> [funding] 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)

Insufficient knowledge. The advocates and designers of performance funding

were also aware that insufficient knowledge could hinder its effectiveness (Authors'

interviews TN PF2 #9). For example, in Tennessee, a gubernatorial adviser noted:

> The greatest level of knowledge [about performance
> funding] is at probably the dean or provost level, along
> with whomever does the actual business administration of
> the institution … and then at the faculty level, much less so.
> It's something that the Higher Education Commission …
> are really trying to get at, which is to help faculty
> understand, invest, etc., because those are people who have
> a direct influence on whether or not students start getting
> through and how. (Authors' interview TN PF2 #9)

Hence, state officials made substantial efforts to spread the word about the goals

and desired methods of performance funding through meetings with local officials,

reports, and email. However, these information dissemination efforts were focused on

senior administrators to the colleges and less often directly targeted faculty and middle-

level administrators (Reddy et al., 2014).

Insufficient institutional capacity. States did little to anticipate and mitigate

institutional needs for greater capacity to respond to performance funding. The states—

with Ohio being a partial exception—did not carefully envision what were the

organizational learning and other demands requirements colleges would face in

responding to performance funding and map out what kinds of capacity building assistance they would require. To be sure, the states did make some effort to foster discussions among institutions about best practices in academic and student support policies (see above). However, with the partial exception of Ohio, we found no evidence of dedicated state efforts to build up the institutional research (IR) and information technology (IT) capacity of institutions. Ohio officials did take steps to create a state data infrastructure that would relieve the colleges from much of the burden of creating and analyzing their data. However, none of the three states provided funding and technical assistance to allow colleges to enlarge their IR and IT capacities and their understanding of how one should use data analysis and organizational reflection to improve student outcomes. In the end, the vast majority of administrators and faculty we interviewed at 18 public colleges and universities in the three states rated the state effort to build up institutional capacity as low or nonexistent in extent (Reddy et al., 2014).

Table 8
Degree of Anticipation of Possible Obstacles to PF2.0 Program

Possible Obstacle	Indiana	Ohio	Tennessee
Student Composition	Medium	Medium	Medium
Inappropriate indicators/measures	Medium	High	High
Institutional resistance	High	High	High
Insufficient institutional knowledge of PF	Medium	Medium	Medium
Insufficient institutional capacity	Low	Low-Medium	Low

7.4 Anticipation of Possible Unintended Impacts

Our interviews with college administrators and faculty at 18 public institutions in our three states finds that the unintended impacts they most frequently reported involve the possibility and not infrequent actuality of restriction of admission of less prepared students to community colleges and broad-access public universities and weakening of academic standards (Lahr et al., 2014). We found that performance funding advocates and implementers in Ohio and Tennessee—but Indiana less so—did consider these

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possible unintended impacts of performance funding and took steps to counteract them, as Table 9 shows.

Restriction of admission to broad-access colleges. A 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, 10; 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)

Similarly, in Ohio, the Chancellor for Higher Education noted:

> Second, critics claim that colleges and universities subject to performance funding will simply not accept "at-risk" students whose lower likelihood of success would drag down an institution's funding. There is no question that institutions whose incoming students have higher levels of demonstrated academic success will have higher graduation rates, not because of something unique to the school but because the students they attract are high achievers who are likely to finish anything they start. Taking this into consideration, we wanted to encourage institutions to help at-risk and academically deficient students achieve at higher levels and reward those who succeed. (Fingerhut, 2012)

Indiana, Ohio, and Tennessee responded to the threat of "creaming" by providing extra funding to their public institutions for graduating students who are deemed at risk. Low-income income students are targeted by all three states, with one or another state also addressing race/ethnicity, age, or student academic preparation (Authors' interview OH PF2 #1, 9; TN PF2 #1; Fingerhut, 2012; HCM Strategists, 2011; Indiana Commission for Higher Education, 2011a; Ohio Board of Regents, 2011b, 2011c; Tennessee Higher

Education Commission, 2012).[13] However, it is not clear that this is enough to really deter colleges from becoming more selective and turning away less prepared (and advantaged) students (see Lahr et al., 2014).

Weakening of academic standards. In all three states, state-level advocates of performance funding expressed concern that it might result in a *reduction in academic standards*, with institutions weakening degree requirements and faculty grading more leniently in order keep up course completion (Authors' interviews IN PF2 #2, 3; OH PF2 #1, 8, 9, 10, 12, 13; TN PF1 #8c; TN PF2 #3, 6, 10, 11, 13, 14; 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 [thinking] this is what you have to do to get this person that piece of paper. I haven't seen that yet, but that was definitely a concern that was raised when we talked about this in 2009. (Authors' interview OH PF2 #8)

To combat the danger of weakening of academic standards, Tennessee policymakers decided to rely on its existing PF 1.0 program, which would continue as a quality assurance adjunct to its new PF 2.0 funding formula. According to a state higher education official:

> [T]he State of Tennessee has always had 5 percent of their state budget allocated based on performance funding … which is a quality component…. For our students that go directly into the workforce, student surveys, employer surveys, the number of students that are able to get a job in their field and retain the job, all of these show did we do quality work in preparing the students for that next step or did we just simply pass them along? (Authors' Interview TN PF2 #13)

Ohio decided that faculty professionalism would be its main counter to the danger of weakening of academic standards. Ohio's chancellor of higher education declared:

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[13] Ohio 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). However, such a bonus is likely to appear in the state funding formula for community colleges for fiscal year 1015.

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 had 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 use … 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)

We have no evidence that Indiana took any steps to addressing the possibility of a weakening of academic standards. A highly placed state higher education official noted:

But there has been some concern for many folks that as we push harder and harder for … students to graduate on time and more degrees, do we dilute the quality, and now you have students out there with degrees … but they're not employable…. And unfortunately, while our commission has been very concerned about this, we have not figured out a quality metric. … It's obviously on the front burner for all of our discussions; we don't want the institutions simply turning on the faucets and letting anybody in to just improve in these metrics. … Our Achilles Heel is the quality aspect. (Authors' interview IN PF2 #3)

Table 9
Degree of Anticipation of Possible Unintended Impacts of PF2.0 Program

Possible Unintended Impacts	Indiana	Ohio	Tennessee
Restriction of enrollment	Medium	Medium	Medium
Weakening of academic standards	Low	Low	Medium

8. Summary and Conclusions

State governments, policy associations, and foundations are showing great interest in performance funding (Dougherty & Natow, in press; 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 are underdeveloped in important regards. 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.

Moreover, while the espoused theories of action for performance funding in the three states do address important possible obstacles to and unintended impacts of performance funding, these obstacles and unintended impacts need still further attention from the states. To be sure, these states have devoted much more effort to carefully devising their performance funding programs than have many other states. Yet there is evidence that these proactive responses still do not go far enough to address the obstacles and unintended impacts that institutions encounter (Lahr et al., 2014; Pheatt et al., 2014). 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 that is insufficiently articulated makes it less likely that performance funding programs 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 (see Lahr et al., 2014).[14]

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[14] 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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