Policy Instruments in Service of Performance Funding: A Study of Performance Funding in Three States

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Abstract

This study examines the primary policy instruments through which state performance funding systems in Indiana, Ohio, and Tennessee influence higher education institutions. The authors interviewed 110 community college personnel at nine community colleges (three in each state) and 112 university personnel at nine universities (three in each state). Their inquiries focused on four policy instruments: (1) financial incentives, (2) communication of the importance of selected goals and intended outcomes, (3) communication highlighting the performance of individual institutions on student outcomes indicators, and (4) enhancement of colleges' capacities to improve student outcomes. The authors examine the immediate impacts each of these instruments has had on individual college budgets, campus awareness of performance funding goals and institutional performance, and institutional capacity, as well as their impacts on institutional efforts to improve student outcomes.

Analyses indicate that all four policy instruments came into play to varying degrees. Policymakers in all three states relied mainly on financial incentives to induce change at both community college and university campuses. State officials in all three states made efforts to educate campus leaders about new performance funding programs in their states, though these efforts varied in their intensity and their level of campus penetration. State officials also made efforts to communicate with campus officials about institutional performance, but again, the nature and intensity of these efforts varied. The authors find very limited evidence of state efforts to build campus-level capacity for organizational learning and change.

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1. Introduction

Over the past four decades, state policymakers have adopted procedures for funding higher education that explicitly tie colleges' appropriations to their performance on designated outcome measures in order to increase the number of college students graduating from state systems (see, e.g., Dougherty & Reddy, 2013; Ewell & Jones, 2006; McLendon, Hearn, & Deaton, 2006; Zumeta, 2001). Today, more than half of all states are operating performance funding programs, and more are coming on line. This performance funding either takes form of bonuses beyond normal state allocations or, in a more recent form that has been dubbed *performance funding 2.0* (PF 2.0), places performance measures within the base state funding (Dougherty & Natow, in press; Dougherty & Reddy, 2013).

Given the growing prominence of performance funding, policymakers and college leaders need to better understand how it works. This paper addresses two primary questions regarding the implementation of performance funding programs: What are the primary policy instruments through which those programs influence higher education institutions? And what perceived impacts do those policy instruments have on institutional efforts to improve student outcomes? Our analysis is based on a close study of 18 institutions—nine community colleges and nine universities—in three states with prominent PF 2.0 programs: Indiana, Ohio, and Tennessee.

In this report, we first discuss the theoretical constructs that underpin our analysis. Drawing on interview data, we then examine the main policy instruments used in performance funding programs in each of the three states: financial incentives, information provision, and capacity building. We note states' heavy reliance on financial incentives and, to a lesser extent, communication of information, compared to their almost complete lack of concern for building the capacity of individual institutions either to respond to the immediate demands of the performance funding program or to engage in the type of organizational behavior that begets institutional improvement. Besides analyzing these main trends, we also examine how the use and perceived impacts of these policy instruments differ between states, later versus earlier program, types of institutions, and positions of the respondents within institutions.

1.1 Theoretical Perspectives

Performance funding programs employ various *policy instruments* to produce sought-after outcomes. Policy instruments are defined as "mechanisms that translate substantive policy goals into concrete actions" (McDonnell & Elmore, 1987, p. 134) and rely on *theories of action* (Argyris & Schön, 1996). Theories of action explain why a given policy instrument should yield a particular outcome. *Espoused theories of action* are those that advocates had in mind as programs were adopted and implemented, and form the theoretical justifications offered for a policy (Argyris & Schön, 1996, p. 13). *Theories-in-use*, the focus of this paper, are "implicit in the performance of [a] pattern of activity. A theory-in-use is not a 'given.' It must be constructed from observation of the pattern of action in question" (Argyris & Schön, 1996, p. 13).

In examining how performance funding programs influence postsecondary institutions, we focus on four policy instruments: (1) financial incentives, (2) communication of the importance of selected goals and intended outcomes, (3) communication highlighting the performance of individual institutions on student outcomes indicators, and (4) enhancements of colleges' capacities to improve student outcomes. We examine the *immediate impacts* that each of these instruments has had on individual college budgets, campus awareness of performance funding goals and institutional performance, and institutional capacity. These immediate impacts are a prelude to institutional changes in academic and student support policies intended to improve student outcomes. We derive these policy instruments from the research literature on policy implementation and principal-agent relationships (Honig, 2006; Lane & Kivisto, 2008; Mazmanian & Sabatier, 1989; McDonnell & Elmore, 1987) and from research we conducted on the theories of action espoused by state-level advocates and implementers of performance funding (Dougherty, Jones, Lahr, Natow, Pheatt, & Reddy, 2014).

Financial incentives function in a similar fashion to business profit motives (Burke, 2005, p. 304; Massy, 2011, pp. 225, 227). This policy instrument closely resembles that of "inducement" or "incentives" (McDonnell & Elmore, 1987, pp. 134, 137–138; Stone, 2012, chap. 12) or "remuneration" as a strategy to guarantee institutional compliance (Etzioni as cited in Matland, 1995, p. 161). The theory of action underlying this instrument involves institutions as revenue maximizers whose leadership will pursue

strategies designed to improve performance, which will, in turn, yield additional money (Burke, 2002). This policy instrument also flows from principal-agent theory, which stresses that there is often a misalignment between the interests of principals and their agents (Lane & Kivisto, 2008). Monetary incentives flowing from the principals (the state) therefore become a device to bring the interests of the agents (college officials) into better alignment with those of the principals.

A second policy instrument is derived from performance funding's ability to highlight state priorities. State policymakers use performance funding to highlight certain outcomes and make the case for prioritizing improvement on those outcomes (Massy, 2011; see also Ewell, 1999; Rutschow et al., 2011). This mechanism closely parallels the soft side of "coercive isomorphism," which may manifest itself as persuasion in that pressure from governmental mandates and societal expectations encourage local change (DiMaggio & Powell, 1983). This instrument operates on the theory that once college and university personnel are convinced that a governmental goal is valuable and legitimate, they will modify their behavior.

Performance funding proponents may also achieve desired outcomes by highlighting institutions' performance on various outcome measures. This instrument relies on the theory that the availability of outcomes information will trigger feelings of pride and status at the local level, even if the information does not explicitly compare institutions to one another (Burke, 2005). Huber (1991) discusses the experiential learning that can occur as members of local institutions discuss their performance relative to their goals.

The final policy instrument we consider is capacity building (McDonnell & Elmore, 1987). State policies may enhance the capacity of higher education institutions to participate in organizational learning processes, thus allowing them to find ways to improve their student outcomes (Rutschow et al., 2011; Witham & Bensimon, 2012; see also Kezar, 2005). Policies could enhance learning processes within colleges by providing resources for improved institutional research and informational technology capacity, by informing colleges about best practices in academic and student support policies, by helping colleges increase faculty and staff capacity to analyze and utilize data to improve student outcomes, and by providing seed money for colleges to invest in new academic and student support programs.

These four policy instruments are not mutually exclusive, and together they provide a framework for understanding the impact that performance funding systems are having on college operations and outcomes. In addition to the theories of action that underlie these policy instruments, it is also important to consider the context of higher education, and the alignment of incentives between principals and agents.

Principal-agent theory has many resemblances to policy implementation theory, particularly to the top-down perspective (see Matland, 1995; Sabatier, 1986). It focuses on how principals can secure the compliance of their agents. The principals can be firms contracting for services or political officials giving orders to subordinate agencies. The theory comes in a number of variants, but at its core, it holds that while principals and agents do cooperate, they also have separate and often diverging interests that may lead the agent to act in ways counter to the interests of the principal. As a result, principals need to take steps to secure the agent's compliance. The first-order step is to specify a more or less explicit contract or agreement, but that agreement must be backed up by oversight, incentives, and, if needed, sanctions. The perennial difficulty with oversight is information asymmetry. Agents often have specialized knowledge that principals do not; thus, it is not always easy to determine if agents are working as hard and as well as principals might want (Lane & Kivisto, 2008; Miller, 2005; Moe, 1984).

One of the main variations within principal-agent theory is between the strands dominant in economics and those in political science. The former sees the principal-agent relationship as primarily between unitary actors motivated by economic self-interest who are bound by an explicit contract, and any "shirking" by the agent as purposeful and self-interested. This fits nicely with the first policy instrument above. Meanwhile, the political science strands allow for multiple principals (such as different regulatory agencies) and even agents, contracts that may be fairly implicit, agent actions motivated not just by self-interest but also by definitions of the social good, and principal responses that may involve appeals to shared values (see Lane & Kivisto, 2008, pp. 150–154). This fits nicely with the second and third policy instruments above. The political science conceptualization better fits the situation of public governance of higher education institutions, in which the contract between public higher education and government is often quite implicit, higher education institutions are regulated and otherwise influenced by a host of different principals

(including governors, legislators, higher education boards, accrediting and professional associations, students and parents, employers, etc.), and those institutions are influenced not just by resource flows from principals but also by principals' appeals to shared social and professional values (see Lane, 2007; Lane & Kivisto, 2008).

Principal-agent theory is highly compatible with the top-down perspective in policy implementation theory (Mazmanian & Sabatier, 1989; Sabatier, 1986) in that it focuses on the interests of the principal (particularly in the economic variant of the theory). However, to the degree that it acknowledges conflicting interests and values, it also resonates with the bottom-up perspective.

While the provision of information about state goals for a performance funding program is perhaps the most direct way to clarify state goals and persuade local actors of their importance, the other policy levers address the principal-agent dilemmas inherent in higher education systems. Financial incentives may play on the revenue-maximizing motives of institutional leaders, but they can be tailored to emphasize state priorities, ensuring that revenue-seekers are moving toward state goals. Providing information on outcomes may touch nerves associated with status and shame, but here too, the state can choose what information to publicize and which indicators to prioritize. If college officials are looking to maximize status and minimize shame on publicly available indicators, they will necessarily have to increase performance on the indicators chosen by the state. Capacity building can also alleviate principal-agent issues. If additional resources are directed toward activities that serve the state's intended purpose, institutional activities should help support state goals.

1.2 Research Methods and Data Sources

This study examines performance funding systems in Indiana, Ohio, and Tennessee, and how administrators and faculty at community colleges and universities in each of those states perceive the immediate impacts of performance funding.

Selection of states for study. The states we selected differ in their experience with performance funding. Tennessee originally implemented performance funding in 1979, Ohio's use of performance funding dates back to 1995, and Indiana's efforts originated in 2007. Since 2010, all three states have implemented PF 2.0 programs,

garnering national attention (Alstadt, Fingerhut, & Kazis, 2012; Dougherty & Natow, in press; Jacobs, 2012).

The states also differ greatly in their higher education governance structures. The higher education system in Indiana is considerably more centralized than that in Ohio, with Tennessee falling in between (McGuinness, 2003).

Finally, the states exhibit substantial variation in sociopolitical context, political culture, formal gubernatorial authority, and professionalism of their legislative bodies (Gray, Hanson, & Kousser, 2013). Indiana and Tennessee both have more conservative electorates, while Ohio, widely regarded as a political bellwether state, is much closer to the national political center (Erikson, Wright, & McIver, 2005). These differences also show up in terms of party control, with Ohio and Tennessee exhibiting greater party competition than Indiana (Holbrook & La Raja, 2013). Ohio also maintains a more professional state legislature than the other two selected states (Hamm & Moncrief, 2013). Lastly, Ohio has a larger, better educated, and somewhat wealthier population than the other two states (Dougherty & Reddy, 2013). For a more detailed description of the characteristics of each of these states, refer to Appendix A.

Selection of institutions for study. This study analyzes the experiences of 18 public higher education institutions: nine community colleges and nine public universities. These higher education institutions were selected based on differences in their anticipated capacity to respond to program requirements. In making this selection, we took into account institutional resources (gauged by revenues per full time equivalent [FTE] student), data-analytic capacity (based on ratings from two experts in each state), and number of at-risk students (determined by percentage of students who are Pell recipients and percentage minority population). Data on revenues, Pell-receiving population, and minority population were retrieved from the Integrated Postsecondary Education Data System (IPEDS) (U.S. Department of Education, 2011). In our analyses and tables, we refer to colleges as high-, medium-, or low-capacity based on these criteria. In the case of the universities, we selected one low-capacity institution and two high-capacity institutions in each state. In particular, we selected high-capacity universities that differed in terms of research intensity in order to see whether research-intensive institutions experience performance funding pressures differently from those with less of a focus on research.

Data collection and analysis. We interviewed administrators and faculty at local institutions in all three states on how the state performance funding programs had affected their institutions. In total, we interviewed 110 community college personnel (34 in Indiana, 38 in Ohio, and 38 in Tennessee) at nine community colleges (three in each state), and 112 university personnel (37 in Indiana, 41 in Ohio, and 34 in Tennessee) at nine universities (three in each state) (see Table 1 for details). We began conducting our interviews at community colleges in all three states in the fall of 2012 and concluded our university interviews in the fall of 2013. We interviewed senior administrators, deans and other mid-level academic administrators, mid-level nonacademic administrators, chairs of a range of departments, and chairs or presidents of faculty senates.

Interview transcripts and supplementary documents were coded using Atlas.ti qualitative analysis software. We developed an initial coding scheme using thematic codes drawn from our conceptual framework. These were supplemented by open codes that emerged from our initial data. We ran queries on the coded data based on our research questions. We then looked for patterns from which we draw our findings.

Table 1
Interview Participants

Participants	IN	OH	TN	Total
Community college				
Senior administrators	10	16	12	38
Mid-level administrators—Nonacademic	5	4	10	19
Mid-level administrators—Academic	11	5	10	26
Faculty	8	13	6	27
Total	34	38	38	110
University				
Senior administrators	15	16	11	42
Mid-level administrators—Nonacademic	4	3	9	16
Mid-level administrators—Academic	6	9	6	21
Faculty	12	13	8	33
Total	37	41	34	112
Grand total	71	79	72	222

Some questions asked participants to gauge effectiveness or impact. In instances in which a response did not specify a high, medium, or low impact, two researchers examined the response independently to infer the perceived level of effectiveness or impact; discrepant ratings were referred to the study's principal investigator for a tie-breaking vote. In interviews at our first Ohio and Tennessee colleges, we found that not all of the responses we received could be easily categorized as high, medium, or low. Hence, for the remaining colleges and universities, we moved to using a 5-point scale to rate impacts and asking our respondents to then explain their rating. When respondents gave a numerical answer, responses indicating a 1 or 2 out of 5 were coded as low-impact, a 3 was coded as medium-impact, and a 4 or 5 as high-impact. When respondents indicated that the state and college had done very little on a given policy instrument—such as capacity building—researchers often omitted questions regarding the instrument's effectiveness.

A key part of our study involves analyzing the communication of information from the state to higher education institutions and, within those institutions, from senior administrators to faculty and mid-level administrators. In classifying this communication, we follow Büchel & Raub (2001) in distinguishing the richness of communication. Richer communication comprises "(a) the ability to provide rapid feedback, (b) the ability to communicate multiple cues, (c) the ability to convey personal feelings, and (d) the ability to use natural language" (Büchel & Raub, 2001, p. 521). Based on this definition, we distinguish four forms of communication:

- *face-to-face, high-interactive*, including face-to-face meetings and informal interactions and group meetings characterized by a high level of potential interaction, such as meetings of the president's cabinet, deans' meetings, department meetings, and faculty senate meetings;
- *face-to-face, low-interactive*, including campus-wide gatherings and forums and open-invitation information sessions;
- *non-face-to-face, high-interactive*, such as personal emails and telephone calls; and
- *non-face-to-face, low-interactive*, such as websites, reports, newsletters, press releases, and generic email blasts and forwarded messages.

We began asking questions that would shed light on the richness of communication after we had already completed interviews at our first community colleges in Ohio and Tennessee. Hence, our data from those first colleges are more limited.

2. Main Patterns

In this section, we review the main patterns and findings from our aggregate dataset. Subsequent sections explore differences between the states in our sample, differences between earlier and later policies, differences between community college respondents and university respondents, differences in responses received from institutions differing in data-analytic capacity, and differences in perceptions by the institutional position of the interviewee.

Our analyses indicate that all four policy instruments came into play to varying degrees. Policymakers in all three states appear to have relied most heavily on financial incentives to induce change at both community college and university campuses in their respective states. State officials in all three states also made efforts to educate campus leaders about new programs in their states, though these efforts varied in their intensity and their level of campus penetration. We also find evidence of efforts on the part of state officials to communicate institutional performance back to campus officials, but again the nature and intensity of these efforts varied. We find very limited evidence of state efforts to build campus-level capacity for organizational learning. As we will show, this is a very important omission that has major implications for colleges' capacities to respond effectively to performance funding demands (see Pheatt et al., 2014).

2.1 Financial Incentives

Financial incentives operate by activating revenue-maximizing behaviors of local officials. Overall, our participants did not perceive substantial impacts on annual state allocations resulting from the performance funding programs in their respective states. When asked to gauge the impact of performance funding on institutional budgets, the mode response indicated little to no impact on institutional budgets, as shown in Table 2 below.

Table 2
Perceived Impact of Performance Funding on Institutional Budget

	Community Colleges				Universities			
Level[a]	IN	OH	TN	Total	IN	OH	TN	Total
High	2	1	6	9	3	1	4	8
Medium	0	0	8	8	13	2	3	18
Low/none	24	22	11	57	13	14	14	41
No coded response	8	15	13	36	8	24	13	45
Total	34	38	38	110	37	41	34	112

[a] See "Data collection and analysis" in section 1.2 for a full description of how we coded responses as high, medium, or low.

Of the respondents who felt comfortable assessing the size of annual budget variations,[1] 98 out of 141 (roughly two thirds) indicated their state's programs had little to no impact on institutional budgets. When asked about the program's impacts on college budgets, an Ohio community college administrator told us:

> It's really not had much of any impact on our funding. … Our state subsidy right now is a little over 10 million dollars. … We actually gained a little in our revenue from the change, which meant to me in total that we did a little better than average with the other schools … in those different success categories. But it was pretty inconsequential to the total. [*Q: So has it caused any big year-to-year fluctuations in institutional revenues? And what I'm hearing is that it did not.*] It did not.

Factors accounting for small budgetary impacts. Though these performance funding programs are tying revenues directly to student outcomes, they include various features that mitigate wild fluctuations from year to year. These features include small portions of the allocation derived from performance, the use of three-year rolling averages rather than annual statistics, hold harmless provisions, and a broader situation of tuition dependence as state financial support for higher education has eroded.

Small size of incentive. Tennessee's formula is almost entirely based on outcome measures, but the same is not true of Indiana and Ohio's formulas. Indiana's program bases 6 percent of the formula-based allocation on student-outcome measures, while Ohio's formula for community colleges initially based just 5 percent of appropriations in

[1] Many respondents had no idea what the budget was and how it varied over time. Hence, they were unable or unwilling to discuss what impact performance funding had on it.

fiscal year (FY) 2011 on performance indicators. One senior administrator in Indiana felt that revenue fluctuations were evident, but that with performance funding controlling just 6 percent of the allocation, the impact of the program "still is rather at the margins." Another senior administrator in Indiana commented that the impact on the larger budget picture may not be as pronounced further down the budget chain, saying:

> One of the things about performance funding is that it affects the overall campus budget, without necessarily directly affecting each individual part of it. And so it doesn't get people's attention that much.

Rolling averages and hold harmless provisions. Rather than relying on one year's worth of data, Indiana and Tennessee have both implemented systems that include multiple years' worth of data. Indiana's system makes comparisons between blocks of three years, while Tennessee has employed a three-year rolling average (Indiana Commission for Higher Education, 2013; Tennessee Higher Education Commission, 2012a, 2012b). One senior administrator in Tennessee, in discussing some of the formula's design features, told us, "Actually, it's designed not to make huge jumps. … It's basically designed so that nobody would ever gain or lose more than 2 percent in a year." In addition, Tennessee phased in its performance funding program over three years. Meanwhile, in Ohio, the 2009 formula initially had a stop-loss provision limiting how much institutions could lose in a given year. This stop loss did not end until after FY 2014 (Ohio Board of Regents, 2009a, 2009b, 2011a, 2011b, 2013a, 2013b).

The role of tuition. In all three states, state appropriations for higher education have not kept pace with enrollments, so institutions have continued to rely heavily on tuition funding. A mid-level administrator in Indiana noted, "[Performance funding] really didn't change my bottom line because I had the same number of students, paying the same amount of tuition" (see also Johnson, 2013).

Perceived impact of financial incentives. Though respondents do not necessarily perceive large annual fluctuations in budgets, they still report that financial incentives are catalyzing on-campus efforts. As a mid-level administrator in Tennessee told us, "Well, cumulatively … it's not a large fluctuation. … But it's definitely influenced institutional

behavior." Table 3 summarizes responses to the question of whether annual variations in funding, such as they are, motivate efforts on campus to improve institutional outcomes.

Table 3
Perceived Impact of Financial Incentive on Institutional Efforts to Improve Outcomes

	Community Colleges[a]				Universities			
Level	**IN**	**OH**	**TN**	**Total**	**IN**	**OH**	**TN**	**Total**
High	14	2	9	25	12	9	15	36
Medium	3	5	2	10	12	5	3	20
Low/none	6	7	1	14	9	8	2	19
No coded response	11	24	26	61	4	19	14	37
Total	34	38	38	110	37	41	34	112

[a] This question was added to our interview protocol after the interview process had concluded at OH CC1 and TN CC1. This is a major reason the "no coded response" figure is higher for community colleges than for universities.

Most of the persons who felt that the financial incentive would have a significant (high or medium) impact in the future stated that funding created an incentive for the college to pay closer attention to its planning for increasing student outcomes. A senior administrator at a university in Ohio told us, "So not only do we want to do it because it's the right thing to do, but we want to do it because we need the money. No question." As one faculty member explained:

> Everything we've been doing really has been targeted at this, and I think that performance funding may raise it to the attention, I guess, this might be a cynical way of thinking … senior administration gets more support for it. But [student success] certainly has been a concern of ours all along. It's now become maybe a more apparent concern, and different initiatives addressing that get more support and recognition and attention.

A senior administrator in Ohio mentioned the potential consequences associated with the state's new formula, saying, "I think that just knowing that the change is coming and anticipating that it may at some point have a negative impact has influenced our focus on student success, no doubt." A mid-level administrator at a university in Tennessee put it this way:

> I think it does have a big impact. And I think it establishes sort of officially that this is the business that we're in, and

> we always should have been in this business. But now we're going to be funded, and anybody who wants to do anything creative, new, expanding whatever, they are going to have to sort of justify it by the funding that comes with these numbers. So yeah, I mean, I think it's a sea change, at least for us on this campus.

Meanwhile, those who believe that the financial incentive has had only a small impact described the incentive as affecting college-level discussions on the importance of graduation rates, without going into specific actions that the colleges have taken. For example, an academic dean at a Tennessee community college said that the financial incentives of the Complete College Tennessee Act have created discussions at the college:

> How it impacts our funding isn't really discussed down at the level of faculty or really that much at my particular level. We just know that graduation impacts funding, but it does create discussions among faculty about what can they do in their classrooms to help students stay in the class, be successful, and thus lead to higher graduation rates.[2]

While we certainly find evidence to support the revenue-maximizing theories supporting the use of financial incentives as an effective policy instrument, such incentives also operate by drawing attention to state priorities as policymakers put their money where their mouths are. According to a senior administrator in Tennessee, "They pretty well get your attention when they tell you how the appropriations are going to be calculated, so everybody's looking at that." A dean at a university in Ohio stated that the pressure to help students complete their degrees has been positive, but the focus on completion could be traced back to the financial incentives "because everybody cares about money."

2.2 Communication of Program Goals and Methods

Besides highlighting goals and priorities by deciding which indicators to use and how much money to associate with each, policymakers can also directly communicate their desired goals to those on campuses. In addition to drawing attention to state goals

[2] Though graduation rates are a component in the Tennessee formula for university funding, they are not part of the formula for community colleges. We cannot say whether this dean's reference to graduation rates stems from loose language or imperfect understanding, but we use this statement to illustrate ways in which campus culture has come to emphasize the importance of completion. We return to the question of the accuracy of participants' understanding of their respective states' formulas later in the report.

and priorities, direct communication can include explanations of how the state's program is intended to bring about the desired results. Below, we review responses to questions in our interview protocol pertaining to how state and college leaders discussed the goals and methods of their respective programs, how deeply that information penetrated campuses, and whether any increased awareness of state goals prompted campus-level efforts to improve institutional performance.

State communication. We asked each of our respondents to whom at the college and through what means the state communicated its goals and intended methods for performance funding. We also asked what impact this communication had on the college's efforts to improve student outcomes. We examined responses for examples of face-to-face communication, non-face-to-face communication, and communication that originated from the state officials and was passed along to on-campus personnel via upper level administrators. The numbers listed in tables below do not refer to interviewees but rather to mentions, because respondents could cite more than one modality of communication. If, for example, a respondent gave examples of both face-to-face and non-face-to-face communication, he or she would be counted in both rows.

Table 4
State Communication of Performance Funding Goals and Methods

	Community Colleges				Universities			
Modality	**IN**	**OH**	**TN**	**Total**	**IN**	**OH**	**TN**	**Total**
Face-to-face	6	6	12	24	16	26	34	76
Non-face-to-face	3	8	7	18	20	27	15	62
Via upper admin	8	9	4	21	18	17	10	45
None	8	8	4	20	3	10	5	18
Total mentions[a]	25	31	27	83	57	80	64	201

[a] Our respondents sometimes cited more than one modality of communication, so the total number of mentions is not the same as the total number of respondents mentioning communication modalities. Our total mentions are lower for community colleges because we did not systematically ask about communication modalities until we began our university interviews.

No communication. In an earlier study, state officials informed us that they were systematically communicating with colleges about the goals and methods of performance funding (Dougherty, Jones, et al., 2014). Moreover, we received numerous examples from our college respondents about communications from state officials. Still, we still

received a fair number of responses indicating either that the state had not communicated its goals and intended methods or that respondents could not recall receiving any such communication.[3] A good part of this response pattern may stem from how state and college officials conceived of the flow of communication. State officials in some instances seem to have conceived of it in terms of the classic two-step flow of communication, in which they communicated to faculty indirectly, through senior administrators. A Tennessee state higher education official told us:

> We never went out of our way to try to speak directly to faculty, though we did if asked. They were not our constituency, and it was probably on balance more effective for faculty to hear about the model from their campus-level administrators rather than those of us at the state level.

This perspective was echoed by a community college dean in Tennessee:

> I think, and this is just my gut feeling, but I think they have relied on us to take it from them and then diffuse it at our level … to the faculty and the staff and so forth that we're working with. So we've gotten it from on high and have filtered down to the next levels.

A similar process may have been at work in Ohio, where a number of reports from university participants also described state communications that filtered down through university channels.[4] One mid-level administrator offered the following thoughts:

> They assume that our administration can get this out to the faculty, which is not a weird assumption. But I think what happens is upper administration becomes the messenger. … If there had been more active involvement from the state really reaching out to the faculty, I think faculty would have gotten this concept much quicker.

[3] Authors' interviews IN CC1 #9, 10; IN CC2 #10; IN CC3 # 1, 4, 5, 8, 10; OH CC1 #4, 6, 12; OH CC2 #5, 7; OH CC3 #6, 13, 14; TN CC1 #7, TN CC2 #1; TN CC3 #13, 14; IN Univ2 #4, 10; IN Univ3 #15; OH Univ1 #6; OH Univ2 #1, 3, 5, 6, 9, 10, 12, 13, 14, 16; OH Univ3 #5, 13, 14, 15; TN Univ1 #11, 12; TN Univ2 #3, 11; TN Univ3 #8.

[4] Authors' interviews IN Univ2 #1, 3, 4, 5, 9, 10, 11, 13; IN Univ3 #1, 2, 5, 8, 11, 16, 17; OH Univ1 #3, 9, 10, 13, 14; OH Univ2 #1, 2, 10, 11, 13, 16; TN Univ1 #3; TN Univ2 #2, 4, 7, 9, 10; TN Univ3 #4, 5, 7, 9, 10.

One faculty member, who described getting information about the program "generally from the media," rather than from the state directly to faculty, also described a chain-of-command problem on campus, telling us, "I'm assuming that they communicate to people at a higher level; it just doesn't make it down the chain of command to departments."

However, most of our respondents did describe direct communication from the state. It took various forms, ranging from face-to-face, high-interactive communication involving meetings with state officials to non-face-to-face, low-interactive communication involving email blasts or information posted on state websites.

Face-to-face, high-interactive communication. Respondents mentioned that they heard about the goals and methods of performance funding through their roles on statewide committees that discussed, and in some cases even helped plan, the performance funding programs.[5] According to a senior administrator at one Tennessee community college:

> Because I am in charge of institutional effectiveness and I do serve on committees at the Board of Regents, and my counterparts at the other institutions [and I] meet at the board on a regular basis, we're probably more in-tune with this than the deans would be. Certainly, the chief academic officer, the chief financial officer, and the president is aware of it as well. … I've held several discussion sessions about it, telling folks what little bit I know.

A mid-level academic administrator described the process by which upper level administrators get information in Ohio from statewide meetings:

> That was communicated on a little bit higher, more central level. The University of Ohio presidents meet in one forum, and the provosts meet with one forum. And it was through that level. And then we, the deans, heard about it in provost council meetings.

Beyond meetings at which university and college leaders participate, a number of interviewees discussed meetings or workshops at which state officials would discuss details of the performance funding program. One faculty member at a university in

[5] Authors' interviews OH CC2 #1; OH CC3 #5, 7; TN CC1 #1, 2; TN CC2 #4, 8; TN CC3 #2, 7, 10; IN Univ1 #1; IN Univ2 #4, 10, 13; IN Univ3 #1, 2, 4, 5, 11, 16, 17; OH Univ1 #10, 14; OH Univ2 #1, 2, 4, 7, 9, 12, 16; OH Univ3 #3, 5, 6; TN Univ1 #1, 3; TN Univ2 #2, 3, 10.

Indiana told us, "We even had a meeting in Indianapolis where [multiple] levels of the university administration, including deans, met with one of the commissioners."

Face-to-face, low-interactive communication. Respondents at seven colleges and eight universities discussed presentations given by representatives from state-level agencies or organizations as mechanisms through which state officials communicated the goals or methods of a particular program.[6] These general forums and presentations were deemed to be less interactive than the committees mentioned in the previous section, though still face-to-face. A major factor in assessing the interactivity of a given venue is whether one would expect it to engender discussion. In Indiana and Tennessee, participants discussed primarily the role played by their respective state commissions. According to one Tennessee senior administrator:

> As the process rolled out, there were several organizations involved in presentations of the formula and communities throughout the state. I know I attended a couple in Knoxville, so sometimes these were presented by folks from THEC [Tennessee Higher Education Commission]. … So I do think the state as a whole tried to put in place and let folks know about the changes that were taking place.

In Ohio, however, participants emphasized the role of the Ohio Association for Community Colleges (OACC) rather than the state itself, as seen in this exchange with a senior administrator of an Ohio community college:

> *Q:* *So, most of the communication that you're receiving is from the OACC?*
>
> A: Right, or groups associated with that. Now, that's me personally, and it's not necessarily what's coming down the pike for everyone.
>
> *Q:* *In terms of communication from legislators or from the governor, you don't hear much information from them?*
>
> A: Directly, no…

[6] Authors' interviews IN CC1 #3, 6; IN CC2 #2, 3, 14, 18; OH CC1 #16; OH CC2 #2; OH CC3 #4, 6; TN CC2 #2, 10; TN CC3 #2, 4, 7; IN Univ1 #1, 4; IN Univ2 #13; IN Univ3 #16, 17; OH Univ2 #1; OH Univ3 #10; TN Univ1 #1, 2, 3, 6, 8; TN Univ2 #2, 3, 6; TN Univ3 #3, 4, 5, 6, 7, 10.

Non-face-to-face communication. Participants from several institutions discussed state communication that was not face-to-face. This communication took a variety of forms, including email blasts, websites, and press releases. An Ohio administrator summed up the state's use of non-face-to-face communication and noted how college personnel required personal motivation to access that information:

> There are websites, there are emails, there's newspaper announcements of, you know, the different things that the state may be doing relative to both K-12 and higher education, but you have to be specifically motivated to spend some time looking at those things. I think a lot of people are getting their news on the web, and so unless you are really connected to something that's going to tweak you when something comes out of the state relative to higher education policy, it might be a fly-by for you that something came out in the paper that said this is news.

Respondents at all three Tennessee community colleges, all three Tennessee universities, and all three universities in Indiana discussed getting emails from state officials, as did respondents at one Ohio community college, two Ohio universities, and two community colleges in Indiana.[7]

A number of participants at both the community college and university level mentioned that their state-level governance agencies make information about the performance funding program available on the state website.[8] Indeed, the Indiana Commission for Higher Education, the Ohio Board of Regents, and the Tennessee Higher Education Commission have placed prominent links on their websites to descriptions of their performance funding formulas (Indiana Higher Education Commission, 2014; Ohio Board of Regents, 2014; Tennessee Higher Education Commission, 2014b). Finally, two senior administrators in Tennessee and one in Ohio reported reading about state priorities in the local media—a source mentioned by a total of 16 college respondents.[9]

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[7] Authors' interviews TN CC1 #7; TN CC2 #4; TN CC3 #3; OH CC3 #3; IN CC1 #3; IN CC2 #1, 14; IN Univ1 #1, 4; IN Univ2 #1, 4, 11, 13; IN Univ3 #1, 4, 8, 11, 12, 15, 17; OH Univ2 #4, 5, 7, 12, 16; OH Univ3 #15; TN Univ1 #6, TN Univ2 #3, 10; TN Univ3 #1.

[8] Authors' interviews IN CC2 #14, 18; OH CC1 #3, 5, 7; TN CC1 #2; TN CC2 #9; IN Univ2 #12; IN Univ3 #11; OH Univ1 #9; OH Univ2 #16; TN CC3 #9; TN Univ1 #7; TN Univ2 #3, 4, 6, 7, 9; TN Univ3 #2, 5.

[9] Authors' interviews OH CC2 #2; TN CC2 #10; TN CC3 #3; IN Univ1 #1, 5; OH Univ1 #9, 14; OH Univ2 #9, 16; OH Univ3 #10, 11, 17; TN Univ1 #3; TN Univ2 #5, 7, 8.

One problem, beyond the fact that a person has to be motivated enough to seek out some of this information, has to do with the quality of those resources. One senior administrator at a university in Indiana put it this way:

> The commission did put out something. It was a brochure handed out which was about the commission, its priorities, and that kind of thing, and probably was intended to explain performance funding. It was not the kind of piece that is going to encourage a broad public awareness or discussion about it.

College communication. In addition to asking about actions taken by the state to better inform campus constituents about the details of their respective programs, we asked respondents about ways in which their college's leadership had discussed the goals and the mechanics of their state's performance funding formulas. Once again, we examined responses for examples of face-to-face communication and non-face-to-face communication, with responses summarized in Table 5.

Table 5
College Communication of Performance Funding Goals and Methods

	Community Colleges				Universities			
Modality	**IN**	**OH**	**TN**	**Total**	**IN**	**OH**	**TN**	**Total**
Face-to-face	16	17	34	67	56	50	34	140
Non-face-to-face	8	3	5	16	14	24	5	43
None	2	8	0	10	2	2	2	6
Total mentions[a]	26	28	39	93	72	76	41	189

[a] Our respondents could cite more than one modality of communication, so the total number of mentions is not the same as the total number of respondents mentioning communication modalities. Our total mentions are lower for community colleges because we did not systematically ask about communication modalities until we began our university interviews.

A handful of our participants reported no action on the part of their college leaders to disseminate information about their state's performance funding program (Authors' interviews IN CC2 #5, 8; OH CC1 #5, 9; OH CC2 #8, 9, 14; OH CC3 #6, 7, 13; IN Univ1 #10; IN Univ2 #4; OH Univ2 #8; OH Univ3 #13; TN Univ1 #11, 12). One respondent discussed the aforementioned chain of command but felt that the "trickle down" of information "is not particularly reliable."

However, we had many more reports of communication efforts by senior administrators to the rest of their colleges. One administrator from a university in Ohio felt the process for disseminating performance funding information was fairly representative of higher education communications in general:

> It's pretty much through mechanisms that we would use for communicating any important information. It has to sort of reach all the different constituencies. And it could well be, you know, presidents can give sort of town hall meetings, some distributed by letters from the president or the provost. It's shared by some of the budget people at a number of faculty committees. It's shared at the faculty senate meetings, so the faculty senate is very involved and knowledgeable about it. As deans, we will share it with our department chairs, who in turn make the faculty aware. Our advising officers are very involved in it. So there's many mechanisms.

Face-to-face, high-interactive communication. Participants across our three states related a number of face-to-face, high-interactive communication modes through which performance funding goals and methods could be more deeply discussed.[10] Further, participants discussed several committees or college-level decision-making groups, including both general administrative structures and special purpose structures, in which the state's goals and methods for performance funding were discussed (Jones et al., 2014).

Leadership meetings. Meetings of the president's leadership team came up in interviews at multiple colleges.[11] Meetings for deans were also mentioned as a venue at which upper level administrators discussed performance funding with faculty and mid-level administrators.[12] A senior administrator at a Tennessee university described the steps of the communication as follows:

> We have actually incorporated presentations on the formula into our academic leadership retreat and you know, so that the academic leadership of the institution at least

[10] Authors' interviews: IN CC1 #1, 2, 3, 5, 6, 7, 8, 9, 11, 14; IN CC2 #1, 3, 14; IN CC3 #1, 4, 9, 10; OH CC1 #3, 11, 16; OH CC2 #1, 2, 5, 6, 10; OH CC3 #4, 5, 10, 13; TN CC1 #1, 4, 6, 8, 10, 12; TN CC2 #1, 2, 4, 9, 12; TN CC3 #2, 3, 4, 7, 9, 10, 14.

[11] Authors' interviews IN CC2 #11; OH CC2 #6; TN CC3 #2, 7, 10; IN Univ2 #5; IN Univ3 #3; OH Univ1 #10; OH Univ2 #3, 10; TN Univ1 #8; TN Univ2 #5, 10; TN Univ3 #6, 7, 8, 9, 10.

[12] Authors' interviews IN CC1 #9; IN CC2 #1; OH CC2 #11; TN CC1 #6, 12; TN CC2 #4; IN Univ1 #8, 9; IN Univ2 #3, 8; IN Univ3 #7, 8; OH Univ1 #10; OH Univ2 #10, 11, 13; OH Univ3 #9, 14; TN Univ2 #2, 5, 10; TN Univ3 #7, 10.

> understands what. … And we've also made presentations to our council of deans so they can understand how the formula works.

Administrative meetings. Administrative meetings, in particular those in which budgets or institutional research are discussed, were mentioned by several university participants, as were administrative committee meetings independent of senior leadership or meetings dedicated to deans and chairs (Authors' interviews IN Univ1 #8, 9; IN Univ2 #5, 7, 9, 11; IN Univ3 #2, 5, 9, 13; OH Univ3 #5, 8; TN Univ1 #7; TN Univ2 #5, 10; TN Univ3 #7, 8). Indeed, one mid-level nonacademic administrator in Tennessee told us, "I mean, there's rarely a meeting that I go to that success and performance funding is not discussed."

Faculty meetings. A number of participants reported that performance funding was discussed in their faculty meetings or meetings of faculty senates. In some instances, this also involved a presentation from a senior administrator.[13] Others related that performance funding matters have been discussed at department meetings (Authors' interviews IN CC1 #11; IN CC2 #3; IN CC3 #4, 9; OH CC3 #4, 10; TN CC1 #6, 10, 12; TN CC2 #9, 12; TN CC3 #3). Interestingly, though several university-based participants discussed the need for chairs to share information, no participants specifically mentioned department meetings as a venue for information sharing. Of our community college respondents, one Ohio department chair told us:

> We do lots of discussion in department meetings. Our dean usually comes to our department meetings, but we also do have faculty senate meetings where these things are discussed as well but not as often.

A Tennessee administrator did acknowledge that departmental meetings often do not get into "the nuts-and-bolts and nitty-gritty of it."

Professional development and other workshops. Respondents at all three community colleges in Tennessee and one Indiana community college reported that performance funding came up during in-service trainings and workshops for faculty (Authors' interviews IN CC1 #2; TN CC1 #4, 6, 8, 12; TN CC2 #1, 9; TN CC3 #14).

[13] Authors' interviews IN CC1 #5, 7, 8; IN CC3 #1, 9; OH CC1 #16; OH CC3 #10; TN CC3 #4, IN Univ2 #8, 9, 10, 11; IN Univ3 #3, 9, 16; OH Univ2 #1, 4, 5, 9, 10, 11, 13, 14, 16; OH Univ3 #3, 5, 6, 7, 8, 15; TN Univ1 #8; TN Univ2 #7; TN Univ3 #1, 3, 4, 6, 10.

Unless specifically designated as a faculty in-service workshop or faculty meeting, gatherings described as involving large populations have been classified as low-interactive communication.

Face-to-face, low-interactive communication. People on campus also pointed to college-wide gatherings, such as state-of-the-college presidential addresses, as venues in which senior administrators might discuss program goals with campus constituents.[14] An administrator from an Ohio college indicated that grappling with the finer details was not a task for such large forums:

> But to really get down to fine details about it, then that happens in person when we all can sit around the table and talk about it. … I'm not sure how well most of the people understand the particulars of it.

Non-face-to-face communication. Participants from all nine community colleges and all nine universities reported receiving emails related to the goals and methods of their respective states' performance funding programs.[15] Three university participants mentioned campus newsletters (Authors' interviews OH Univ2 #1, 16; TN Univ2 #5). Only two community college senior administrators, both from Indiana, reported the use of institutional websites as a medium through which college leaders put out information; institutional websites were mentioned by six university-based participants at a total of four institutions.[16]

> People go in their mailboxes because increasingly it's emailed, but people go to their mailboxes and there are maybe 10 different items of information, you know, institutional meetings to talk about various things, that are in their mailboxes. We have 20 people in our department, and 20 of those are in the trash as soon as they look at them in their mailbox, and the same thing happens in their email…

[14] Authors' interviews IN CC1 #6; IN CC2 #3; IN CC3 #4; OH CC2 #6, 10; OH CC3 #4; TN CC1 #10; TN CC2 #9, 12; TN CC3 #2, 3, 7, 9, 12, 13, 14; IN Univ3 #2, 5, 7, 9, 13; OH Univ2 #9, 10; TN Univ3 #8.
[15] Authors' interviews IN CC1 # 5, 6, 10, 14; IN CC2 #3, 10; IN CC3 # 4, 8; OH CC1 #1, 8; OH CC2 #1, 8; OH CC3 #2, 5, 13; TN CC1 #6, 11; TN CC2 #1; TN CC3 #2, 6, 7, 9, 12; IN Univ1 #9, 12; IN Univ2 #3, 4, 5, 6, 9, 10, 11, 13; IN Univ3 #4, 7, 11, 15, 17; OH Univ1 #11; OH Univ2 #16; OH Univ3 #2, 4, 5, 7, 8, 9, 15; TN Univ1 #6; TN Univ2 #10; TN Univ3 #4.
[16] Authors' interviews IN CC1 #14; IN CC2 #14; IN Univ2 #13; IN Univ3 #8; OH Univ2 #4, 16; TN Univ2 #3, 7.

Variations in awareness of state goals and methods. As noted, providing local actors with information on the state's goals and the methods by which the state plans on achieving those goals can help motivate those local actors to modify their behavior. This theory of action, however, is dependent on the information penetrating campuses beyond the upper levels of a college or university's administration. Only a handful of respondents felt that awareness was close to uniform throughout their institution (Author's interviews IN Univ2 #11; IN Univ3 #4; TN Univ2 #2, 5, 10). In fact, we received many responses indicating that awareness is diminished at lower levels in the organizational structure. Even if there is awareness, it may not involve understanding of any particular depth. A Tennessee administrator characterized the variation by distinguishing between awareness and understanding:

> There's a general awareness, obviously, that we're moving to this outcomes-based formula and that we all need to get focused related to our student success measures. And that's driving a lot of work. But I'm not sure that there is an in-depth … I think there's room to grow in terms of a more in-depth understanding of the specifics in the formula, how it works, at the faculty and staff level.

This view was shared by an Ohio administrator, who told us:

> I would say that there is a minimal understanding of that at those levels. I think that there's awareness. Again, through our strategic planning council, there's been more dialogue with leadership within those units and groups, but that it funnels back down to a pragmatic level. I think that there's minimal true understanding of it and what it means to the layperson. So, certainly, senior admin is very cognizant of it, and I don't think that necessarily from a community-wide standard there is the truest understanding of this is it, this is what it's going to mean and how it's going to impact.

Distinctions between awareness and understanding are also recognized by state policymakers. One state official from Tennessee characterized awareness as a broad but shallow goal to be applied to the larger population; fostering a deeper understanding of the state's program, however, was targeted toward campus leaders, for whom a more developed understanding would yield a greater return on invested time (TN PF2 #1c).

Themes explaining variations in awareness between campus actors at different levels of the institution generally fit into five categories: competing demands on faculty time and attention, differential exposure to performance funding requirements and institutional budgets, the exercise of administrative discretion over what to share and how much to share, communication breakdowns, and program size.

Competing demands on faculty time and attention. Several respondents discussed more pressing and immediate teaching and research concerns as impeding faculty awareness (Authors' interviews IN Univ2 #5, 6, 7, 10; IN Univ3 #2, 8, 12, 17; OH Univ1 #3, 14; OH Univ2 #9, 11, 12, 14, 16; OH Univ3 #4, 6, 15; TN Univ1 #2, 3, 5; TN Univ3 #1, 4). One faculty member from a university in Ohio defended faculty members' reasons for staying out of the administrative world, saying:

> I think a lot of … certainly the faculty have, and maybe correctly, you know, decided what they want to do is they want to focus on doing the things that they have trained for: engaging in research, getting students involved in that, and they put a lot of effort into their teaching. I think they're doing a lot of the right things but without perseverating on these concerns coming beyond from the state about what's, you know, about [the] funding formula. … They should be focusing on doing what they came here to do and want to do, and not getting so mired down in all of these administrative issues.

In describing the causes for variations in awareness, one mid-level Ohio academic administrator discussed other demands on faculty time, and a sense that matters pertaining to performance funding ought to be handled by administrators:

> I think chairs are aware because they are being asked for data or given data—not as aware as deans and higher level administrators. Faculty, it varies. It varies from oblivious to involved. … There are certain faculty that are so focused on their research, so that they don't really care about [university administration] and yeah, yeah fine, but that's not my job. Deal with it.

An academic administrator at a Tennessee university even went as far as to say, "When you're in the classroom, I would hope it's really not on anybody's mind."

Differential exposure to performance funding requirements and institutional budgets. While faculty have myriad other concerns that occupy their time and attention, many administrators have jobs that require them to deal with performance funding policies and mandates.[17] As a vice president at one community college told us:

> I think that for faculty and staff, it seems rather removed from what they do daily, and despite the fact that they've been told that this is how things are working, I think they just sort of turn off at that point, and if you were to ask them a question, they would say, yeah, I heard something about that, but I can't explain it to you.

This sentiment was echoed by faculty as well. One faculty member at a university in Indiana admitted that being removed from the decision-making strata of the institution created a situation in which faculty were not versed in the formula's nuances:

> I think it's because we're several steps removed from those kinds of budgetary issues. We have a huge College of Arts and Science [enrollment] this year, and I'm sure their allocation is very likely affected, but I don't know how. So again, you know, in the president's letter, he'll state things like, well, you know, [our university] got a 2.3 percent raise in overall funding, and [another university] had a 9 percent raise in overall funding, and you look at that and say, why the hell is that?

Administrators, however, are daily engaged in tasks that put them in contact with performance funding's requirements. Administrators attend more of the meetings discussed above, and information about programs goes through administrative offices. According to a senior administrator at a university in Tennessee:

> You know, we [vice presidents and deans] are looking at numbers and how many students are progressing through certain [benchmarks]. … We look at courses where a high number of students are not successful and look at ways in which we can revise those courses. … I was just looking this morning for data on retention rates from one year to another in particular disciplines, and are there any patterns that we ought to be looking at to try to address? So I think at the administrative level, it's very much on people's minds.

[17] Authors' interviews IN Univ1 #9; IN Univ2 #2, 4, 12; IN Univ3 #3, 5, 12, 17; OH Univ2 #12; OH Univ3 #4, 7, 8, 17; TN Univ1 #6; TN Univ2 #7; TN Univ3 #1.

Administrative discretion. The notion that administrators deal with these matters routinely while performance funding is a peripheral concern of faculty feeds another response theme—that administrators are somewhat judicious in choosing what to share and how much detail to include. A senior administrator at a university in Tennessee described a desire on the part of administrators to share information somewhat judiciously:

> They don't sit down and go through the report and say, you know, this, this, and this. Different parts of it may be addressed in faculty meetings where the chancellor or the vice chancellor is speaking … and then as that formula funding pertains to a particular area, that piece of it may be discussed. But where they sit down and say, "Okay, we've got the results, or we've got the standards, and here they all are," and, you know, do a big communication blast from campus, that's not done. I think it's more of a need-to-know [basis].

A similar view was expressed by both high- and mid-level administrators at two Ohio community colleges. They stated that they selectively informed others in the college in order to reduce anxiety and information overload that threatened to distract faculty from doing their job (Authors' interviews OH CC1 #1, 6; OH CC3 #1, 2, 3, 4, 5, 15). A mid-level Ohio community college administrator explained:

> They [the faculty] just want to come to work and do their job, and it gives them anxiety, I think, so they don't really want to know these details. But we try to educate people as much as we can at their level of understanding.

One senior administrator in Ohio described the use of administrative discretion as a way to buffer faculty from the state's political winds:

> We actually tried in Ohio to protect as many of our faculty and staff from the chaos that we have to deal with on a daily basis in Ohio. I mean that very genuinely. … In Ohio this has been such a small part of our overall funding that it just is not significant to the level that we would explain in that kind of detail to rank-and-file people. … So what I'm trying to say is, faculty are focused on things very different than what we have to deal with in Columbus.

Communication breakdowns. While some respondents, as discussed above, thought communications intensity was a product of discretion, a number of respondents

characterized the lack of communication as a shortcoming of state and local leadership.[18] Some respondents suggested that the "nature of higher education" (Authors' interview OH Univ3 #6) played a role, but others were more pointed in their criticisms. Faculty members at one Ohio institution thought the administration could do a better job of communicating the information and rationale that underlay a lot of the decision making on campus:

> I think administration needs to talk about the details of this funding, their formulas and the state initiative better and more to the faculty members. … It's not that they are not doing the work required to meet the objective—we are doing quite a bit—but there are a lot of questions at the faculty level as to why certain things are being done and whether these things are being done would be a factor. In other words, there has been less of a participation in terms of formulating the policies to meet those objectives, and much of policy formulation has been done at the upper administration level without much of a faculty participation.

Faculty who sit on the appropriate faculty senate committees might have an advantage in terms of information exposure (Authors' interview OH Univ3 #7), but even if the program is discussed in faculty meetings, one faculty member at an Ohio university reminded us that most part-time faculty do not attend faculty meetings and are thus likely to miss out on that particular source of information (Authors' interview OH Univ3 #15).

Program size. Three participants brought up the size of their state's performance funding program, suggesting the payout was too small to command serious attention at the faculty level (Authors' interviews IN Univ1 #11; IN Univ3 #11; OH Univ2 #1). A faculty member at a university in Indiana discussed the size of the state program, saying:

> It's 6 percent, and the faculty [members] are focusing on getting their day-to-day job done, and this funding portion that's 6 percent of the overall university budget, they're not spending a lot of time thinking about that. They're thinking about their day-to-day operations. … I do think that 6 percent is a little low. I don't know that 6 percent will ever have a huge impact, even in good economic times.

[18] Authors' interviews IN Univ1 #4, 8; IN Univ2 #1, 10, 12; IN Univ3 #7, 11, 15; OH Univ1 #13; OH Univ2 #5, 6, 13, 16; OH Univ3 #7, 8, 9, 10, 13, 17; TN Univ1 #3, 4, 5, 6, 10, 12; TN Univ2 #9, 11; TN Univ3 #2.

Perceived impact of awareness of state goals and methods. A common though not universal opinion among our participants was that awareness of their state's goals and methods for performance funding motivated people on campuses to consider ways to improve institutional performance. A majority of those providing a rating viewed awareness of the state's goals and methods for performance funding as having a medium or high impact on their institution's efforts to improve student outcomes (see Table 6).

Table 6
Perceived Impact of Awareness of Performance Funding Goals and Methods

	Community Colleges[a]				Universities			
Level	**IN**	**OH**	**TN**	**Total**	**IN**	**OH**	**TN**	**Total**
High	15	3	17	35	4	7	10	21
Medium	2	7	1	10	17	6	0	23
Low/none	8	8	0	16	9	7	2	18
No coded response	9	20	20	49	7	21	22	50
Total mentions	34	38	38	110	37	41	34	112

[a] This question was added to our interview protocol after the interview process had concluded at OH CC1 and TN CC1.

A high-level academic administrator from Tennessee said that knowledge about the goals and methods of the new funding formula had caused changes because it changed the institutional culture:

> It's really changed the culture, from what I understand. Again, you may hear different things from other administrators of this college because they were here when we had the other funding mechanism. But the conversations I've been in with the deans and with faculty, it's really changing the culture in terms of how we're looking at students and what we're considering to be success in terms of completers.

Meanwhile, a dean at an Indiana community college expressed the sentiment that the program had highlighted the need to better serve the student population:

> They're really letting people know, "This is a serious issue." And again, like I said, it's not all being driven by the fact that its money involved, but there's an awful lot of "It's the right thing to do. This is a serious problem for the country; we need to see what we can do to solve that problem."

A senior administrator at an Ohio university acknowledged the influence of the program but noted that the intensity of impact is not uniform across the campus. Given that awareness of state goals and methods varies within a campus, this variation is not surprising:

> Well, again, I think in a fairly narrow band of people, I think it's changed behavior a lot. I think it's given a lot more focus to figuring out interventions and methods that we can employ to try to improve the outcomes. I think in a broader sense, it's been much less influential.

2.3 Communication of Institutional Performance

Providing people on campus with information regarding their institution's performance can induce efforts to improve performance in two ways. Outcomes data can highlight areas in which the institution's performance needs to be improved. Further, publication of outcomes can trigger feelings of pride and shame on the part of people on campus, particularly when institutional outcomes are compared to those of peer institutions (Burke, 2005, p. 304; Dougherty, Jones, et al., 2014; see also Huber, 1991).

In the sections that follow, we analyze responses and examples of ways in which state and college leaders shared information about campus-level performance on the indicators used in the state formula. Similar to our treatment of communications surrounding program goals and methods, we identify examples of face-to-face and non-face-to-face communication of institutional outcomes. We also asked participants for their perspectives on whether information about their college's outcomes had penetrated the college fairly deeply and what impact performance awareness had on the institution's efforts to improve student outcomes.

State communication. Multiple participants from eight of our nine sampled community colleges, as well as eight of nine universities, told us that the state had not communicated with campuses regarding their results.[19] One administrator in Indiana offered the following thoughts for why state communication around goals and methods was stronger than state communication of institutional performance, stressing the recent nature of the program's enactment:

[19] Authors' interviews IN CC1 #3, 4, 6; IN CC2 #2, 9, 13, 17; IN CC3 #1, 2, 4, 5, 6, 7, 9, 10; OH CC1 #6, 8; OH CC2 #5, 8, 9, 11; OH CC3 #2, 3, 4, 5, 9, 10, 11, 13; TN CC1 #3, 7; TN CC2 #9, 11, 12; IN Univ1 #9; IN Univ2 #2, 3, 4, 5, 7, 10; IN Univ3 #1, 2, 7, 12; OH Univ1 #4, 6, 9, 10, 11, 14; OH Univ2 #3, 4, 13, 14; OH Univ3 #10, 13, 14, 15; TN Univ1 #4, 6, 12; TN Univ2 #8.

I think they've been less engaged in terms of reporting performance. I mean, they discuss it in their meetings quite a bit, but I don't believe that they've been as much engaged in terms of publicizing at this point. But again, I think that's also a recognition that we're in the early stages of implementation.

Table 7
State Communication of Institutional Performance

	Community Colleges				Universities			
Modality	**IN**	**OH**	**TN**	**Total**	**IN**	**OH**	**TN**	**Total**
Face-to-face	13	9	3	25	6	4	6	16
Non-face-to-face	3	11	3	17	12	16	23	51
Via upper admin	3	4	7	14	3	8	8	19
None	15	14	5	34	15	18	12	45
Total mentions[a]	34	38	18	90	36	46	49	131

[a] Our respondents sometimes cited more than one modality of communication, so the total number of mentions is not the same as the total number of respondents mentioning communication modalities. Our total mentions are lower for community colleges because we did not systematically ask about communication modalities until we began our university interviews.

Those who could cite any form of state communications most frequently observed that their state-level governance agencies were communicating with campus-level higher-ups or, in the case of Indiana, central office personnel (Authors' interviews IN CC1 #1, 6, 10, 14; IN CC3 #1, 2, 3, 4, 5, 6, 9; OH CC1 #16; OH CC2 #8; OH CC3 #3, 5; TN CC1 #6; TN CC2 #2, 8; TN CC3 #1, 2, 7, 12). As one Ohio university administrator put it:

> I know that I've seen tables in which the graduation rates of all the various public institutions in the state have been compared. And I can't tell you off the top of my head who produced those tables or why they were put in front of me. I think they were put in front of me by the administration in one of our meetings.

Face-to-face communication. When we look at forms of direct communication, we find more examples of non-face-to-face communication than face-to-face communication, in contrast with the trends for communication of state goals and methods (compare Table 7 and Table 4). Still, numerous examples of state face-to-face communication were reported. A Tennessee university administrator discussed how the university received information at meetings chaired by the Tennessee Higher Education Commission (THEC) and involving the heads of institutions under the Tennessee Board of Regents (TBR) and the University of Tennessee (UT):

> It starts with sort of a meeting at the state level, at THEC, usually with TBR and UT schools together, in a room, with Russ Deaton and some others, typically David Wright and others from THEC explaining sort of what's been

> happening [with] the latest data. And then we come back to the campus and disseminate it, sometimes, again sort of in a broad-stroke campus message from the chancellor. Mostly though, it's through the academic chain of command, with me then reporting to the deans, who go to chairs, and the chairs to the faculty.

Meanwhile, in Ohio, two university administrators conjectured that outcomes might be the subject of discussions at the Inter-University Council, on which all university presidents sit (Authors' interviews OH Univ2 #1, 9). Similarly, three participants at an Indiana university thought the Indiana Commission for Higher Education may be discussing the numbers, but the number of institutional participants at such meetings was limited (Authors' interviews IN Univ1 #1, 5, 6).

Non-face-to-face communication. The states governments communicated with institutions through a variety of non-face-to-face means, including email, websites, and reports. Sixteen respondents, most of whom were administrators, reported receiving emails from the state with performance information (Authors' interviews IN CC2 #1; IN CC3 #8; OH CC2 #2; TN CC1 #4; TN CC2 #2, 10; IN Univ1 #9; IN Univ3 #3, 4; OH Univ1 #13; OH Univ2 #16; OH Univ3 #6; TN Univ1 #7; TN Univ2 #2, 3, 5). Moreover, participants at all nine universities and two community colleges mentioned state websites as a source of information about institutional performance (Authors' interviews OH CC1 #1; OH CC2 #1, 2; IN Univ1 #6; IN Univ2 #6, 11, 13; IN Univ3 #1; OH Univ1 #3; OH Univ2 #1; OH Univ3 #5, 9; TN Univ1 #2, 5; TN Univ2 #2, 3; TN Univ3 #3, 6, 7, 9). In Tennessee, the Higher Education Commission's web resources on performance funding include information on how the formula works as well as spreadsheets with data for all Tennessee institutions on all formula indicators. However, in Indiana, a senior administrator at a university was not too impressed with the state's use of its website as a communication strategy:

> I think their website is terrible. … There have been times that I've gotten on the website to try to get some information, and I think if anyone just in curiosity wanted to know something about this, you just couldn't find out in terms of how things went. I think this whole area of the funding formula, because there are multiple formulas, it becomes very arcane to people. They don't know how to

> unpack it. At the front end, I'd say I think it's a difficult thing to communicate, so I'd acknowledge that, but I also think really the communication is a relatively narrow band of individuals.

Several participants noted that the state would send a report to certain people on campus, with the responsibility for further dissemination falling to campus leaders.[20] Finally, eight respondents told us that the state would report results in the mass media (Authors' interviews OH CC1 #3; OH CC2 #2; IN Univ1 #10; OH Univ1 #14; OH Univ2 #4, 16; OH Univ3 #10; TN Univ3 #8).

College communication. A number of participants indicated they had not received communications from their college leaders about their institution's standing on the state performance metrics (Authors' interviews IN CC1 #7, 9, 10; OH CC1 #5; OH CC2 #9, 11; OH CC3 #3, 7, 11; TN CC1 #7, 12; TN CC2 #3, 9; IN Univ1 #10, 11; IN Univ2 #4, 5; OH Univ2 #11, 13; TN Univ1 #6). However, many other respondents mentioned a variety of ways in which their college had communicated to them about how the college was doing on the state performance metrics. Responses are summarized in Table 8.

Table 8
College Communication of Institutional Performance

	Community Colleges				Universities			
Modality	**IN**	**OH**	**TN**	**Total**	**IN**	**OH**	**TN**	**Total**
Face-to-face	3	4	20	27	12	17	19	48
Non-face-to-face	13	9	14	36	1	14	13	28
None	3	8	4	15	4	2	3	9
Total mentions[a]	19	21	38	78	17	33	35	85

[a] Our respondents sometimes cited more than one modality of communication, so the total number of mentions is not the same as the total number of respondents mentioning communication modalities. Our total mentions are lower for community colleges because we did not systematically ask about communication modalities until we began our university interviews.

Face-to-face, high-interactive communication. A substantial number of participants indicated that performance outcomes had become a part of meeting agendas

[20] Authors' interviews IN CC2 #1; OH CC1 #16; OH CC2 #1, 6; OH CC3 #1, 2; IN Univ1 #1, 6, 8, 10, 12; IN Univ2 #4, 5, 6, 7, 11, 13; IN Univ3 #2, 3, 4, 17; OH Univ2 #5, 6, 11, 12, 13, 16; OH Univ3 #5, 9, 10; TN Univ2 #1, 3; TN Univ3 #2, 4, 7, 8, 10.

around the institution (Authors' interviews IN CC1 #8; OH CC1 #1; OH CC2 #12, 14; OH CC3 #1, 2, 14; TN CC1 #6; TN CC2 #10; TN CC3 #1, 2, 8, 9, 13).

Leadership team meetings. Participants noted that meetings of college or university presidents' senior staff frequently included agenda items pertaining to performance on the state metrics (Authors' interviews IN Univ1 #1; IN Univ2 #1; IN Univ3 #9, 15; OH Univ1 #13; TN Univ1 #10; TN Univ2 #6, 11; TN Univ3 #1, 4, 10). As one community college administrator in Tennessee told us:

> Basically, our president has monthly presidential staff meetings … monthly administrative council meetings … [and] monthly meetings also with … direct staff. So, it's a constant update and review of where we are with our funding formula weights, where we need to be. We're constantly working towards our best outcome. We're constantly looking at outcomes. [The president] makes sure that it's a part of every meeting.

Other administrative meetings. Several participants also mentioned administrative meetings—such as budget meetings, strategic planning meetings, and other committee meetings—as venues for dissemination and discussion of information about institutional outcomes (Authors' interviews IN Univ1 #2; IN Univ2 #1, 7, 13; IN Univ3 #8, 17; OH Univ1 #4, 10; OH Univ2 #12; OH Univ3 #6; TN Univ1 #5, 8, 10; TN Univ2 #2; TN Univ3 #1, 3, 4, 9). As described by a mid-level academic administrator in Ohio:

> Well, there is our vice president's involvement and also we also have institutional research, registrar's office, and associate deans meet monthly … and that is one of the topics that they discuss on a pretty regular basis.

Meetings of deans and department heads were also mentioned by our respondents as instances of face-to-face information sharing (Authors' interviews IN Univ2 #2; IN Univ3 #15; OH Univ1 #13; OH Univ2 #12; TN Univ1 #10, 12; TN Univ2 #3; TN Univ3 #7, 8, 10).

Faculty meetings. Participants also brought up meetings of faculty senates or executive committees as places in which performance information is shared on campus (Authors' interviews IN Univ2 #2, 10; IN Univ3 #8, 9; OH Univ2 #14; OH Univ3 #5, 6, 7; TN Univ1 #8; TN Univ3 #3, 4, 10).

Face-to-face, low-interactive communication. College-wide meetings were also brought up by participants at five community colleges and five universities as venues for discussion of performance outcomes (Authors' interviews IN CC1 #1; IN CC2 #3, 5; OH CC2 #1, 5; TN CC1 #1; TN CC3 #5, 6, 7, 8; IN Univ2 #2; IN Univ3 #3, 8, 9; OH Univ2 #14; TN Univ2 #3, 6, 10, 11; TN Univ3 #2, 8). Discussing the inclusion of performance funding outcomes in the college president's once-per-semester, college-wide meeting, one mid-level administrator at a Tennessee college told us, "Well, now they are getting those numbers out fairly quickly, and at each, we have an update or a conference once a semester, and that's when those numbers start to show."

Non-face-to-face communication. Respondents at all nine of our community colleges and five universities reported that college higher-ups send out information on college performance via email.[21] Several respondents also mentioned unspecified memos, reports, or campus newsletters (Authors' interviews IN CC3 #1, 3, 5, 6; OH CC3 #4; TN CC1 #1; OH Univ1 #4; OH Univ3 #7, 9, 13; TN Univ1 #8; TN Univ2 #1, TN Univ3 #8, 10). Only one community college participant mentioned the institution's website (Authors' interview IN CC 1 #6), but participants from three universities mentioned their institution's website (Authors' interviews OH Univ1 #10; OH Univ3 #6, 7, 15; TN Univ2 #3, 9).

Variations in awareness of institutional performance. Just as awareness of performance funding goals and methods must penetrate a campus if the policy instrument is to be effective, a policy instrument predicated on awareness of institutional outcomes can only be expected to be successful if campus personnel are aware of their college or university's performance. As with awareness of program goals and methods, we find inconsistencies in awareness across personnel within the same college. An Ohio university faculty member described the problem with relying on the chain of command to disseminate information:

> The president disseminates it to his vice president and the vice president [to the next level], and by the time it gets to the lower, to the mid-level professionals, it's all watered down. So, you know, often presidents and vice presidents think that the information that they are dealing with will get

[21] Authors' interviews IN CC1 #5, 6, 10, 14; IN CC2 #3, 10; IN CC3 #4, 8; OH CC1 #1, 8; OH CC2 #1, 8; OH CC3 #2, 5, 13; TN CC1 #6; TN CC2 #11; TN CC3 #2, 6, 7, 9, 12; IN Univ1 #9; OH Univ3 #6, 9, 10, 14; TN Univ1 #5, 7; TN Univ2 #3; TN Univ3 #11.

> disseminated, and it doesn't. The same, this issue is not any different than the ones that I have seen in the past.

As with variations in awareness of program goals and methods, variations in awareness of institutional performance could be categorized into four broad themes. These comprise competing demands on faculty, differential exposure to performance funding requirements and institutional budgets, administrative discretion, and communication breakdowns within the institution.

Competing demands on faculty time and attention. If commitments preclude faculty members from digging into program goals and methods, they have similar effects on faculty assimilation of information on student outcomes (Authors' interviews IN Univ1 #2; IN Univ2 #3, 11; IN Univ3 #8, 9, 13; OH Univ2 #11, 12, 14; OH Univ3 #5, 15; TN Univ2 #5, 6; TN Univ3 #1, 4). As one faculty member at a university in Ohio described:

> I think faculty who care know and faculty who don't care don't know, and those faculty, probably there is not much you can do to make them aware. [Faculty members are] an idiosyncratic lot. They will do what they want to do. You can lead them to water, but you can't make them drink.

A senior administrator from a university in Indiana discussed the process in terms of budget cycles and legislative calendars, essentially saying that most constituents do not pay attention until there is some sort of event that merits attention:

> And the president and the chancellors and provosts, et cetera, I think when we reach those milestones is when they communicate more effectively or more clearly about the impact of the budget process. And so when that happens, I think folks, you know, they kind of operate on a calendar because there's these cycles to higher education, and we know that in the spring of a certain year, hey, we get some feedback on the budget and about our kind of fiscal health, and how these negotiations are going. And so that's when people start to put two and two together. … Ignorance is the wrong word, but, you know, they're just not aware of all of these things that are going on. It doesn't necessarily impact them in the way it does a lot of us.

Differential exposure to performance funding requirements and institutional budgets. Though involvement with performance funding requirements may be outside

faculty members' job descriptions, performance funding activities impact administrative positions more directly (Authors' interviews IN Univ1 #2, 8; IN Univ3 #8, 16; OH Univ1 #8; OH Univ2 #4, 12; OH Univ3 #8; TN Univ1 #5; TN Univ2 #8). A Tennessee community college administrator attributed variations in awareness of outcomes to differential exposure, saying:

> I think they know of it, they're just not around as many meetings as we would be to be able to hear it all the time. … For example, we have dean meetings about every two weeks. We have on-site in-service meetings once a semester, and we have a lot of committee meetings like that, but the faculty themselves aren't involved in nearly as many of those as administration.

A mid-level administrator in Indiana stressed that, even though the information is shared, the action takes place at higher levels of the institution that the departmental level:

> You know, we go to these chairs' and directors' meetings once a month and … these sorts of things tend to be discussed … you know, there's lots of other business … [and] certainly on these kinds of issues, like I said, it very rarely filters down. This is something that, you know, we just don't deal with at the departmental level.

Administrative discretion. As with the sharing of information about goals and procedures, there were some who thought administrators were being selective about communicating performance outcomes, rather than being neglectful or simply ineffective. One senior administrator at a university in Indiana felt that people had a handle on the big picture, including the need to improve completion numbers, but that the more intricate details should not be shared with faculty:

> It's like fundraising numbers and so on. I mean that's, the details of that are something that's the job of administrators to deal with. And it's not, you know, it's not one of the things we ask faculty to do.

But administrative discretion may also have to do with assessments of how to handle good news and bad news. A senior administrator at a high-capacity university in Tennessee noted: "Unless there's a problem, we don't [communicate] much." However, a faculty member at a low-capacity Ohio university saw the opposite:

> When things are good, we hear about it. If the president doesn't mention anything about it, then we know the numbers didn't get better. I think our retention rate stayed the same, it didn't go up, so. Nobody said anything about it because it's not good news. Not bad news either, but I went and found it. It was flat.

Communication breakdowns. Here too, we find that the lesser knowledge on the part of faculty is explained by many respondents as due to breakdowns in communication and not just faculty's lack of interest and absence of exposure to the realities of budget making.[22] One faculty member at a community college in Ohio explained that the campus really did not have systems through which such information could be disseminated, particularly for understanding policy changes such as performance funding: "There is not an information system that keeps faculty informed, which I suspect is the case at many colleges. There's a divide between faculty and administration."

Perceived impact of awareness of institutional performance. Our data indicate that, even if awareness of institutional performance was not uniformly high at the institutions in our sample, awareness of outcomes was motivating efforts on campuses. As displayed in Table 9, 51 out of 101 respondents for whom we have coded responses indicated that performance awareness had a high impact on the college's efforts to improve student outcomes.

Table 9
Perceived Impact of Awareness of Institutional Performance

	Community Colleges[a]				Universities			
Level	**IN**	**OH**	**TN**	**Total**	**IN**	**OH**	**TN**	**Total**
High	10	2	15	27	2	11	11	24
Medium	5	5	4	14	7	2	4	13
Low/none	3	5	0	8	4	7	4	15
No coded response	16	26	19	61	24	21	15	60
Total mentions	34	38	38	110	37	41	34	112

[a] This question was added to our interview protocol after the interview process had concluded at OH CC1 and TN CC1.

[22] Authors' interviews OH CC1 #5, 6, 8; OH CC2 #5, 8, 9, 11; OH CC3 #4, 7, 9, 11; TN CC2 #3; IN Univ3 #11; OH Univ1 #13; OH Univ2 #1, 11; OH Univ3 #6, 9; TN Univ1 #2, 5, 12; TN Univ2 #11; TN Univ3 #4.

While many of these respondents simply indicated an impact, some provided insights into how awareness of performance influenced campus efforts. They pointed to the highlighting of performance weaknesses and the spurring of status competition.

Highlighting performance weaknesses. Performance funding programs can identify instances of institutional failure and push colleges to address them. The emphasis on certain measures, and its impact, was evident in comments from senior and mid-level administrators (Authors' interviews OH Univ2 #6; OH Univ3 #2, 5; TN Univ1 #6, 9). A senior administrator at an Ohio university described the university president's reaction to the seeing certain retention numbers:

> When the president noticed the retention rate of our entering class—it's really poor; it's one of the poor-performing—he really moved a lot of stakeholders to not only dialoging but to have an action plan of student retention. So a lot has been done…

Spurring status competition. We also found instances of performance information driving status competition amongst universities (Authors' interviews OH CC2 #1, 10; TN CC1 #2, 6; OH Univ1 #11; OH Univ3 #9; TN Univ3 #5, 6, 7). A senior administrator of an Ohio university described the ability of performance funding programs to induce status-competition between universities:

> I'd say the financial impact was completely overshadowed by these other features about this university's reputation and where it really wanted to focus and maintain its status, relative to the other public institutions in the state as well as some of the private schools with whom we know we compete for similar students.

A mid-level university administrator in Tennessee also described how performance funding spurred status competition:

> It's always been bragging rights, you know, amongst the different campuses. You know, who has the best retention rate? Who has the highest graduation rate?

2.4 Capacity Building

Policy scholars have noted that an important policy instrument to effect organizational change is to build the capacity of target institutions, such as colleges and universities, to

respond effectively to policy initiatives through organizational learning and change (Kezar, 2005; McDonnell & Elmore, 1987; Rutschow et al., 2011; Witham & Bensimon, 2012). This instrument takes on greater significance in a context in which state policymakers state that they wish to avoid getting involved in the day-to-day of campus operations and therefore eschew specific prescriptions for campuses (Dougherty, Jones, et al., 2014).

Despite the possible importance of this policy instrument, our respondents at both community colleges and four-year institutions overwhelmingly reported that states rarely provided any significant capacity-building assistance to their higher education institutions to help them respond to the demands of performance funding. As can be seen in Table 10, participants at both community colleges and universities reported very limited capacity-building efforts as part of their state performance funding programs.

Table 10
Perceived Extent of State Capacity-Building Efforts

	Community Colleges				Universities			
Level	**IN**	**OH**	**TN**	**Total**	**IN**	**OH**	**TN**	**Total**
High	2	0	0	2	0	0	0	0
Medium	0	1	4	5	0	0	1	1
Low/none	27	27	21	75	35	33	22	90
No coded response	5	10	13	28	2	8	11	21
Total mentions	34	38	38	110	37	41	34	112

Across the nine community colleges, of 82 individuals who responded to our queries on the extent of state support, 75 (91 percent) rated the state capacity-building effort as low or nonexistent.[23] For example, a senior administrator at an Ohio community college stated:

> There's not been a specific program or statewide project to direct state funding for increasing capacity in one area or another. … There's no programs that measure this is where you are, this is where you need to go, and this is how you need to get there.

[23] Authors' interviews IN CC1 #2, 3, 8, 9, 10, 13, 14; IN CC2 #1, 3, 5, 9, 13, 14, 17, 18; IN CC3 #1, 2, 3, 4, 5, 6, 7, 8, 9, 10; OH CC1 #3, 4, 6, 7, 8, 12, 15; OH CC2 #1, 2, 3, 6, 8, 9, 11, 12; OH CC3 #1, 2, 3, 4, 5, 6, 7, 10, 11, 13, 14, 15; TN CC1 # 1, 3, 4, 5, 6, 7, 8, 11, 12; TN CC2 # 1b, 2, 3, 5, 6, 9, 10, 12; TN CC3 # 1, 2, 3, 4, 7, 8, 10, 12.

Similarly, an Indiana community college administrator noted that the college's president has taken steps to build up institutional research (IR) capacity, but that this has been separate from any state-sponsored efforts:

> I know that our current president has built up IR in our regions, and we, we probably have more data examined and forthcoming than we have ever had, as far as I can recall. But to my knowledge, I think that's more internally motivated by our current vice president of administration than it is state-motivated. Now, the state may be the motivating reasons, but, I mean, I don't think they gave you a bunch of money and said, "Here, figure this out." If they did, I don't know it.

Meanwhile, our university respondents also reported that the state provided little to no capacity-building assistance. Across our nine four-year institutions, of the 91 respondents who were able to rate the extent of state capacity-building efforts, 90 rated the state's efforts as low or nonexistent.[24] As a mid-level Tennessee university administrator noted,

> I just think the state is saying, "It's up to you to find efficiencies, and it's up to you to do what you need to do to increase outcomes. And if you do a good job, we're going to give you more money." But they didn't [give] any kind of seed money to start any of these new things. We had to find most of the money ourselves. It's like raises. The state says, "Give employees a 3 percent raise. Oh, by the way, we're only going to contribute maybe a percentage, and you've got to find the other 2 percent."

Because of the lack of state capacity-building efforts, two university respondents—from Ohio and Indiana—described performance funding as an "unfunded mandate." The first statement comes from a faculty member in Ohio, who described how the lack of state capacity-building efforts was particularly pronounced, given the budget cuts that occurred in 2009, just as the performance funding program was beginning:

> I think it's an unfunded mandate, to the best that I know. Maybe you may hear otherwise. I have not heard of anybody saying, here is what the state is going to do to help

[24] Authors' interviews IN Univ1 #1, 2, 4, 5, 8, 9, 10, 11, 12; IN Univ2 #1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13; IN Univ3 #1, 2, 3, 4, 7, 8, 9, 11, 12, 13, 15, 16, 17; OH Univ1 #1, 3, 4, 5, 6, 8, 9, 10, 11, 13, 14; OH Univ2 #1, 2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 16; OH Univ3 #3, 4, 5, 6, 7, 8, 9, 13, 15, 17; TN Univ1 #2, 3, 4, 5, 6, 10, 11; TN Univ2 #1, 3, 4, 5, 7, 9, 10, 12; TN Univ3 #3, 5, 6, 7, 8, 9, 10.

> ease the transition. … I'm not aware of any assistance from the state. If there was, we certainly, the faculty center or the union didn't hear about it. … One of the painful things about this, is this happened right at the same time as there was … most universities had to take about a 14 percent budget cut back in I think 2009. You know, our infrastructure contracted right at the moment we were told now, you know, "You need to perform to these kinds of higher expectations." And in fact a lot of those things like advising or I think the average advising caseload now is something like … about 1,000 students apiece.

Similarly, a faculty dean from Indiana observed: "It seems like what we get generally from them is unfunded mandates. … No, I don't think there's been any big influx of resources to help."

The apparent lack of attention to capacity building on the part of state officials is troublesome, given the need for analytic capabilities that performance funding programs implicitly require. Even if local actors are fully aware of their state's priorities, fully motivated to improve, and fully aware of how their institution is performing, institutions need high-quality analytic processes that will allow for meaningful introspection. While financial incentives, awareness of goals and methods, and awareness of institutional performance are powerful instruments, organizational change will only be consequential if it is properly conceived (for more on this, see Pheatt et al., 2014, and Jones et al., 2014).

3. Differences by State

In this section, we disaggregate our responses by state. We should note that questions regarding the impact of each policy instrument were added to our protocol after the completion of interviews at the first community colleges in our sample in Ohio and Tennessee. As a result, for those states, we would anticipate higher numbers in the "no coded response" category. For the most part, our respondents in Tennessee reported stronger impacts than did those in our other two states on three of the four performance funding policy instruments: financial incentives, the communication of program goals and methods, and the communication of institutional performance on state metrics.

However, Tennessee was only slightly more likely to be described as providing significant amounts of capacity-building assistance.

3.1 Financial Incentives

Our data on financial incentives suggest that respondents in our three states did perceive budget pressures differently, with respondents from Tennessee indicating a greater impact of their formula than respondents in Ohio and Indiana. As can be seen from Table 11, there were some differences in perceptions of budgetary impact across our three states. We note that 46 percent of Tennessee respondents (21 out of 46 who gave us a response to this question) thought their program had a medium or high impact on their institution's bottom line. This proportion is much higher in Tennessee than in Ohio, where this view was held by 10 percent (4 out of 40) of respondents, and Indiana, where 33 percent (18 of 55) gave this response.

Table 11
Perceived Impact of Performance Funding on Institutional Budget, by State

	Indiana			Ohio			Tennessee			Grand Total
Level	CC	Univ	Total	CC	Univ	Total	CC	Univ	Total	
High	2	3	5	1	1	2	6	4	10	17
Medium	0	13	13	0	2	2	8	3	11	26
Low/none	24	13	37	22	14	36	11	14	25	98
No coded response	8	8	16	15	24	39	13	13	26	81
Total mentions	34	37	71	38	41	79	38	34	72	222

The distinctions between our three states remain visible, though perhaps diminished, when it comes to the perceived impacts of the financial incentives on campus-level efforts to boost performance. As can be seen in Table 12, 75 percent of Tennessee respondents (24 out of 32) thought their state's financial incentives had a high impact on their institution's efforts to improve student outcomes, while only 31 percent of Ohio respondents (11 out of 36) and 46 percent of Indiana respondents (26 of 56) felt the same way. Further, only three participants in Tennessee gave responses indicating their program's financial incentives had little or no impact on campus operations, whereas this opinion was offered by 15 of 36 in Ohio and 15 of 56 in Indiana.

Table 12
Perceived Impact of Financial Incentives on Institutional Efforts to Improve Outcomes, by State

	Indiana			Ohio			Tennessee			Grand Total
Level	CC	Univ	Total	CC[a]	Univ	Total	CC[a]	Univ	Total	
High	14	12	26	2	9	11	9	15	24	61
Medium	3	12	15	5	5	10	2	3	5	30
Low/none	6	9	15	7	8	15	1	2	3	33
No coded response	11	4	15	24	19	43	26	14	40	98
Total mentions	34	37	71	38	41	79	38	34	72	222

[a] This question was added to our interview protocol after the interview process had concluded at OH CC1 and TN CC1. Hence, the "no coded response" figure is higher for community colleges than for universities.

These state differences are not surprising, given that Tennessee bases a greater portion of state appropriations for public higher education on performance indicators than do Indiana and, until recently, Ohio. The proportion of state appropriations for universities tied to performance metrics is comparable between Tennessee and Ohio. However, the proportion for community colleges in Ohio was much lower until very recently. It did not reach 50 percent until FY 2014. However, it is not clear on why Indiana, with an even lower proportion, has more respondents stating there is an impact than does Ohio.

3.2 Communication of Program Goals and Methods

We find interesting differences between the states in terms of both state communication of program goals and methods, displayed in Table 13, and on-campus discussion of program goals and methods (Table 14). Tennessee respondents provided more examples of face-to-face communication, including both standing-committee types of meetings, at which university officials from multiple campuses might gather, and meetings on campuses to explain the new formula in greater detail. Half of reports of state communication in Tennessee took the form of face-to-face communication (46 out of 91). However, this is true of only 26 percent (22 out of 82) of Indiana communication examples and 28 percent of Ohio examples (32 out of 111).

Table 13
State Communication of Performance Funding Goals and Methods, by State

	Indiana			Ohio			Tennessee			Grand Total
Modality	**CC**	**Univ**	**Total**	**CC**	**Univ**	**Total**	**CC**	**Univ**	**Total**	
Face-to-face	6	16	22	6	26	32	12	34	46	100
Non-face-to-face	3	20	23	8	27	35	7	15	22	80
Via upper admin	8	18	26	9	17	26	4	10	14	66
None	8	3	11	8	10	18	4	5	9	38
Total mentions[a]	25	57	82	31	80	111	27	64	91	284

[a] Our respondents could cite more than one modality of communication, so the total number of mentions is not the same as the total number of respondents mentioning communication modalities. Our total mentions are lower for community colleges because we did not systematically ask about communication modalities until we began our university interviews.

Regarding in-house communication between upper level administrators and their campus constituencies, only two Tennessee responses (3 percent) and four Indiana responses (6 percent) indicated that college or university leaders had not communicated about the state's new formula. As displayed in Table 14, somewhat more Ohio responses (10 percent), particularly at community colleges, indicated a lack of college communication.

Table 14
College Communication of Performance Funding Goals and Methods, by State

	Indiana			Ohio			Tennessee			Grand Total
Modality	**CC**	**Univ**	**Total**	**CC**	**Univ**	**Total**	**CC**	**Univ**	**Total**	
Face-to-face	16	56	72	17	50	67	34	34	68	207
Non-face-to-face	8	14	22	3	24	27	5	5	10	59
None	2	2	4	8	2	10	0	2	2	16
Total mentions[a]	26	72	98	28	76	104	39	41	80	282

[a] Our respondents could cite more than one modality of communication, so the total number of mentions is not the same as the total number of respondents mentioning communication modalities. Our total mentions are lower for community colleges because we did not systematically ask about communication modalities until we began our university interviews.

Tennessee's system was designed with extensive campus-based input and collaboration (Dougherty, Natow, et al., 2014; Dougherty & Natow, in press). Colleges and universities participated in the process of determining differential weights, and state officials involved institutional leaders in the conceptualization and implementation of the new formula. A senior administrator at our high-capacity university in Tennessee noted

how the performance funding metrics overlapped with the institution's strategic goals, with the result that the administration strongly communicated them:

> Those metrics, like retention and graduation and research, they measure up and fit right in with our strategic plan, so they are being communicated to deans and department heads all the time throughout the semester. We are talking about how we fared, and we're doing historical comparisons to show where our measurements were over time, and then we'll throw in kind of the, "Don't forget, these are the same metrics that are in the funding formula, and it's very important."

When we aggregate our respondents' assessments of the impact of such awareness by state, we find more respondents in Tennessee than in Indiana and Ohio who indicated a high degree of impact. Conversely, very few Tennessee participants felt the awareness did not affect their campus. Given the low number of Tennessee interviewees describing no communication by either state or college actors, the distribution of effectiveness displayed in Table 15 is unsurprising.

Table 15
Perceived Impact of Awareness of Goals and Methods, by State

	Indiana			Ohio			Tennessee			Grand Total
Level	CC	Univ	Total	CC[a]	Univ	Total	CC[a]	Univ	Total	
High	15	4	19	3	7	10	17	10	27	56
Medium	2	17	19	7	6	13	1	0	1	33
Low/none	8	9	17	8	7	15	0	2	2	34
No coded response	9	7	16	20	21	41	20	22	42	99
Total mentions	34	37	71	38	41	79	38	34	72	222

[a] This question was added to our interview protocol after the interview process had concluded at OH CC1 and TN CC1.

3.3 Communication of Institutional Performance

The number of participants who could not recall or identify any state communication about institutional performance was smaller in Tennessee than in either Ohio or Indiana (see Table 16). However, most examples of state communication of results in Tennessee described non-face-to-face interactions, while Indiana participants gave us more examples of face-to-face communication of results than non-face-to-face

examples. We are not sure what to make of this pattern, especially when we juxtapose it to the one laid out in Table 17 with regard to communication within colleges.

Table 16
State Communication of Institutional Performance, by State

	Indiana			Ohio			Tennessee			Grand Total
Modality	**CC**	**Univ**	**Total**	**CC**	**Univ**	**Total**	**CC**	**Univ**	**Total**	
Face-to-face	13	6	19	9	4	13	3	6	9	41
Non-face-to-face	3	12	15	11	16	27	3	23	26	68
Via upper admin	3	3	6	4	8	12	7	8	15	33
None	15	15	30	14	18	32	5	12	17	79
Total mentions[a]	34	36	70	38	46	84	18	49	67	221

[a] Our respondents could cite more than one modality of communication, so the total number of mentions is not the same as the total number of respondents mentioning communication modalities. Our total mentions are lower for community colleges because we did not systematically ask about communication modalities until we began our university interviews.

Looking at Table 17, we note a high number of reports of face-to-face communication coming from our participants in Tennessee. Again, we think the high level of involvement of Tennessee's institutional leaders in developing the performance metrics may have helped foster a climate in which these measures are more routinely brought up within the college. However, that makes the Tennessee pattern found in Table 16 rather anomalous.

Table 17
College Communication of Institutional Performance, by State

	Indiana			Ohio			Tennessee			Grand Total
Modality	**CC**	**Univ**	**Total**	**CC**	**Univ**	**Total**	**CC**	**Univ**	**Total**	
Face-to-face	3	12	15	4	17	21	20	19	39	75
Non-face-to-face	13	1	14	9	14	23	14	13	27	64
None	3	4	7	8	2	10	4	3	7	24
Total mentions[a]	19	17	36	21	33	54	38	35	73	163

[a] Our respondents could cite more than one modality of communication, so the total number of mentions is not the same as the total number of respondents mentioning communication modalities. Our total mentions are lower for community colleges because we did not systematically ask about communication modalities until we began our university interviews.

Looking at Table 18, we see that, as with communications regarding goals and methods, participants in Tennessee appeared to perceive a greater impact of performance

awareness than their counterparts in Ohio and Indiana. Here too, we point to communications at both the state and local levels for boosting awareness, and consequently perceptions of impact.

Table 18
Perceived Impact of Awareness of Institutional Performance, by State

	Indiana			Ohio			Tennessee			Grand Total
Level	CC	Univ	Total	CC[a]	Univ	Total	CC[a]	Univ	Total	
High	10	2	12	2	11	13	15	11	26	51
Medium	5	7	12	5	2	7	4	4	8	27
Low/none	3	4	7	5	7	12	0	4	4	23
No coded response	16	24	40	26	21	47	19	15	34	121
Total mentions	34	37	71	38	41	79	38	34	72	222

[a] This question was added to our interview protocol after the interview process had concluded at OH CC1 and TN CC1. Hence, the "no coded response" figure is higher for community colleges than for universities.

3.4 Capacity Building

As can be seen in Table 19, we received fewer responses indicating a lack of capacity-building efforts from our participants in Tennessee. Of the eight participants who listed some substantial form of capacity building, five were in Tennessee. Some Tennessee respondents discussed the Banner software that the state provided in order to standardize student information systems across campuses, as well as efforts to share best practices (Authors' interviews TN CC2 #2; TN CC3 # 2, 3, 5, 6, 9). Also, a few participants did mention that Tennessee state officials worked with Complete College America to provide a series of College Completion Academies focused on strategies to boost completion (Authors' interviews TN CC2 #1, 2, 3; TN Univ1 #8; TN Univ3 #1, 2). In describing the College Completion Academies, one community college president from Tennessee remarked:

> The basic model was that we had some general conversations about the goals of Complete College Tennessee, and then a series of expert speakers on a variety of sort of topics related to college completion, and then breakout time where institutions could have follow-up conversations with those experts. … We had some strategies to employ. And, in fact, we're in the process of following those up and sort of taking those ideas and incorporating them into our long-term strategic planning at the institution.

Table 19
Perceived Extent of Capacity Building Efforts, by State

	Indiana			Ohio			Tennessee			Grand Total
Level	CC	Univ	Total	CC	Univ	Total	CC	Univ	Total	
High	2	0	2	0	0	0	0	0	0	2
Medium	0	0	0	1	0	1	4	1	5	6
Low/none	27	35	62	27	33	60	21	22	43	165
No coded response	5	2	7	10	8	18	13	11	24	49
Total mentions	34	37	71	38	41	79	38	34	72	222

As noted above, participants in Tennessee provided the bulk of the examples of capacity building, so it should not surprise us that, of the 13 responses indicating some sort of impact from capacity-related efforts, 11 came from Tennessee.

4. Differences Between Earlier and Later Policies

In two of the states in our study, Tennessee and Ohio, we collected data on multiple programs. As noted, Tennessee's experiences with performance funding date back to 1979, when it created the first program of this nature in the country. More recently, Tennessee has blazed a trail as an early implementer of a PF 2.0 program that ties almost all state allocations to institutional outcomes. Ohio's first experiences with performance funding came in the 1990s, when the state enacted the since-discontinued Success Challenge. More recently, the state enacted a PF 2.0 program in 2009, and then in 2013 substantially revamped it.

In this section of our report, we discuss differences between Tennessee's original 1979 program and the outcomes-based funding formula it adopted in 2010, as well as the differences between Ohio's 2009 enactment and its 2013 reform. We omit comparisons to the Ohio 1997 Success Challenge, as awareness of the program and its impacts has faded since the program's demise, to the point where we could collect only limited meaningful data. For the most part, we find that the policy instruments had a greater impact for the later program in Tennessee than for the earlier program. There is some evidence that this might hold as well for the later versus earlier iterations of the 2009 program in Ohio, but

our data are much less clear, in good part because our interviews occurred while the 2013 changes were still being decided and had not yet been implemented.

4.1 Tennessee's 2010 and 1979 Programs

The structure of Tennessee's two programs is markedly different. The original performance funding program, first implemented in 1979 and still in use in the state, is a typical PF 1.0 program, in which institutions are awarded money on top of their base budgets. The formula adopted in 2010 is an archetypal PF 2.0 program, in which outcomes indicators are embedded within the state's allocation formula. The 1979 performance funding program accounted for a much smaller percentage of state appropriations—around 5 percent, compared with 80–85 percent for the 2010 program.

Among our interviewees, impressions of budget impacts were lower and discussion and awareness of the program's goals and methods as well as institutional performance were generally less frequent for the 1979 program. Indeed, the only way in which the 1979 and 2010 programs are similar is in their disregard for institutional capacity.

In terms of communications, our results indicate that communications about the 1979 program pale in comparison to communications about the new formula, due in part to the different sizes of the programs. As one senior university administrator told us: "When you're talking 100 percent of the funding versus 5, it makes a big difference."

Respondents at all three Tennessee universities mentioned accreditation processes as the main source of their awareness of the 1979 program (Authors' interviews TN Univ1 #1; TN Univ2 #5, 6, TN Univ3 #8). Accreditation of eligible programs is one of the 1979 program's indicators; thus, going through the process provided an opportunity for college and university personnel to become more familiar with program requirements for that particular indicator:

> We are in the midst of a re-accreditation with our regional accreditor, so that's come up more lately, about how those two can mesh. You know, we're doing certain things for the state, and now we're looking at needing to do things for our regional accreditor, and how can we achieve both goals simultaneously?

More generally, participants noted that there is a general awareness of the 1979 program requirements on campus, but whether an individual has a detailed understanding

depends on whether a particular program requirement is relevant to his or her responsibilities:

> As far as the idiosyncrasies of the formula—you get so many points if you have a student whose score on a certain exiting exam, and that earns you so many thousands of dollars, and all that—no, I can't give you those, and I suspect most people on campus could not. You'd have to talk to somebody who actually works in the area and works with it because people are busy doing what their [own] goals and objective are.

Remarks from interviewees suggest that there is a comparatively greater awareness of institutional performance. Interviewees noted that the state publishes the results of the 1979 program, and that numbers could often be found in the local media. Referring to the results associated with the older program, one mid-level academic administrator remarked:

> All of the scores for the different institutions in the state are published every year. And so we know exactly how we did, and you know, our score went up by 0.2, or somebody else's went down by 0.5. And so you know exactly how every institution did on this.

Our participants noted the potential upshot of doing well on the formula was not purely financial. Rather, responses indicated a desire for status, with high scores yielding good press:

> If we're talking on the original 5 percent, the impact of the dollars was basically [very low]. The impact of saying you got the dollars was much higher than that because to be able to say you got the full funding amount for performance and people looking at your quality of education and your outcomes is much more important than the dollars itself that we got.

Though Tennessee has maintained the performance funding program initiated in 1979 as an adjunct to the new overall funding formula instituted in 2010, the larger formula tends to get most of the attention. When asked to gauge on a five-point scale the state's communication of results of the 1979 program, one participant said, "In the past, a

5 [very high]; now probably a 3, just because THEC's emphasis is on the new formula" (Authors' interview TN Univ1 #8).

The only example of capacity-building assistance from the state mentioned in our interviews came from a senior administrator at a university, who noted that the state had collected and analyzed certain pieces of data for the 1979 program themselves, without taxing local resources (Authors' interview TN Univ1 #3).

4.2 The 2013 and 2009 Versions of Ohio's PF 2.0 Program

We collected some data from respondents regarding Ohio's Success Challenge, which was established in 1997. However, awareness of the program was too low to allow for meaningful analysis. At the time we interviewed them, many administrators and faculty had only recently joined their colleges and were only dimly aware of the Success Challenge. Hence, we focus our analysis here on the two stages of the PF 2.0 program that Ohio established in 2009.

The 2009 performance funding program in Ohio began with 5 percent of the state allocation for community colleges in FY 2011 dependent on performance outcomes. In 2013, the state modified the program such that by 2014, that number would become 50 percent, and by 2015, the full appropriation would be based on performance outcomes (Ohio Association of Community Colleges, 2013). State universities, however, began with four fifths of their state appropriation being tied to course and degree completions (see Appendix B for greater detail on how percentages changed in Ohio).

The impact of the 2013 change to the allocation formula had yet to be felt on campuses at the time of our interviews, but we received a number of responses indicating that the increased influence of outcomes on funding may produce larger impacts as those changes are implemented. Several participants, particularly at community colleges, noted that the 2013 version of the formula could have a much larger impact on institutions than the 2009 version, given the percentage of funding associated with it (Authors' interviews OH CC1 #4; OH CC2 #3, 4, 7, 9; OH CC3 #3, 6, 15; OH Univ2 #2, 5, 7). Said one community college administrator:

> We actually have an expectation that it will [have a significant impact on funding] … and that we are trying to prepare ourselves for that and how best to make sure that

> we're meeting those standards and trying to continue to achieve financial solvency.

That said, as we were conducting our interviews, the 2013 formula was still very new. This is particularly true of our community college interviews, which were underway at the same time that Ohio's policymakers were considering and adopting this change. A number of participants felt that the state had not made a tremendous effort to communicate with campus constituents in rolling out the changes (Authors' interviews OH Univ1 #10; OH Univ2 #3, 5, 9, 13, 16; OH Univ3 #13, 15). Thus, participants noted that not all the details were fully understood. According to one university administrator:

> I think with the new model, it's coming out, but I think people are trying to understand the complexity of it, where you may go up or where you may go down, because of some of the changes in the funding model. So I think that's where we are right now.

One further wrinkle associated with the 2013 revision was its genesis, involving the creation and use of a special purpose Higher Education Funding Commission, which worked largely independently from the Ohio Board of Regents. Thus, the changes to the state's performance funding policy were being promulgated by a new entity, creating new channels for development, implementation, and communication. This commission involved presidents from Ohio's higher education institutions, however, yielding opportunities for direct communication and information dissemination by the state via face-to-face meetings of campus leaders (Authors' interview OH PF2 #2b). The Ohio Board of Regents, which had traditionally carried out these functions and had traditionally considered matters such as institutional capacity, played a much smaller role than it previously had. While this might explain why capacity building played very little role in the 2013 version, we note that the 2009 policy iteration also contained little capacity enhancement for campuses.

5. Differences by Type of Institution

In this section, we look to see whether differences in patterns emerge when data are grouped according to higher education sector (community colleges versus universities) and organizational capacity of the colleges.

5.1 Community Colleges Versus Universities

Overall, our analyses showed more similarities than differences between community college and university respondents in discussing the four policy instruments. However, several important differences emerged from our analyses (see below). To the degree there are differences, it is important to keep in mind that we conducted interviews with university officials approximately one year after we conducted the interviews at the community colleges. Because the implementation of the performance funding programs is ongoing, it is possible that this extra year or so of program implementation at the universities accounts for some of the differences in our findings related to the financial incentives, communication of state goals and methods, and communication of institutional performance, as well as the perceived impact of these policy instruments. Furthermore, we added important questions regarding the impact of the policy instruments after we had completed interviews at the first community colleges in our sample in Tennessee and Ohio, as well as questions regarding the modes of communication (face-to-face, non-face-to-face, etc.) after we had completed all the community colleges interviews.

Financial incentives. We do note interesting differences between the community colleges and four-year institutions. Although our analyses revealed a similar pattern in terms of how community college and university respondents rated the impact of performance funding on their institutional budgets (with the large majority in both cases stating that performance funding had little to no impact; see Table 2), a higher percentage of university respondents rated the financial incentives as having a medium or high perceived impact on institutions' efforts to improve student outcomes (see Table 3). As discussed above, this could be the result of the additional year of implementation of the funding formula that had occurred by the time we conducted our university interviews. Also, until recently, the state funding formula for community colleges in Ohio had a much smaller performance funding component than did the university formula.

Communication of program goals and methods. With regard to state communication of performance funding goals and methods (see Table 4), it is of note that university respondents much less often mentioned receiving no communication from the state. Only 9 percent of mentions by university respondents involved no state communication, while 24 percent of those by community college respondents did so. A similar disproportion shows up with regard to communication within colleges, with fewer cases of no communication mentioned in the case of universities than in community colleges (see Table 5). However, as Table 6 indicates, our community college respondents were considerably more likely than their university counterparts to state that awareness of state goals and methods had a high perceived impact on their institution's efforts to improve student outcomes: 57 percent (35 out of 61 who gave us ratings) versus 34 percent (21 out of 62).

Communication of institutional performance. With regard to state communication of institutional performance (see Table 7), there was no difference by type of college in the number of respondents stating that there was no state communication. However, respondents in the community colleges more often mentioned face-to-face communication than did university respondents. In the universities, respondents mentioned state communication occurring in non-face-to-face venues more than three times as often as they cited face-to-face communication. As previously discussed, non-face-to-face communication typically included electronic communication (including email and websites). However, when discussing college communication of institutional performance (see Table 8), university respondents indicated that face-to-face communication occurred much more frequently than did non-face-to face communication. Based on our analyses, it appears that within the community colleges, information about college performance was generally shared via email. Community college and university respondents in our sample reported a comparable perceived impact of performance awareness on institutional actions (see Table 9).

Capacity building. Reports from community college and university respondents did not show any significant differences in our fourth policy instrument, capacity building. As discussed in section 2.4, nearly all respondents stated that the state provided

little or no assistance to the institutions to improve their performance on the performance funding indicators.

5.2 Differences by Organizational Capacity Within Each Sector

In this section, we examine whether respondents at colleges and universities that differed in their organizational capacity to respond to performance funding (indexed by revenues per FTE student, data-analytic capacity based on ratings from two experts in each state, and number of at-risk students) viewed the four policy instruments differently. While perceptions of immediate financial impacts did not vary greatly, respondents at low-capacity community colleges and universities more often reported that the financial incentives had a substantial perceived impact on institutional efforts to improve student outcomes than did their peers at higher capacity institutions. With regard to communications, there were few striking patterns beyond that participants at low-capacity colleges offered more examples of face-to-face communication from state officials about state goals and methods than did their peers at higher capacity colleges. Finally, there was no difference by institutional capacity in perceptions about the extent of state help to build institutional capacity; respondents at institutions of all types, including low-capacity ones, perceived virtually no state help.

Financial incentives. As shown in Table 20, perceptions of program impacts on budgets were not substantially different among respondents from colleges with different capacities. The dominant pattern across all kinds of colleges is that most coded responses indicated low or no impact.

Table 20
Perceived Impact of Performance Funding on Institutional Budget, by Institutional Capacity

	Community Colleges				Universities			
Level	**High**	**Med**	**Low**	**Total**	**High 1**	**High 2**	**Low**	**Total**
High	5	2	2	9	3	3	2	8
Medium	0	3	5	8	3	8	7	18
Low/none	16	16	22	54	11	15	15	41
No coded response	18	14	7	39	20	11	14	45
Total mentions	39	35	36	110	37	37	38	112

However, we do see that interviewees at low-capacity community colleges gave more importance to financial changes. As displayed in Table 21, 58 percent (15 of 26 respondents providing a rating) indicated a high impact, compared with 44 percent (7 of 16) at medium-capacity colleges and 27 percent (4 out of 15) at high-capacity colleges. A somewhat similar pattern exists with for universities, with respondents at low-capacity universities and non-research-intensive, high-capacity universities (High 2) more often than those at research-intensive, high-capacity universities (High 1) stating that the financial incentives had a high perceived impact on institutional efforts to improve student outcomes.

Table 21
Perceived Impact of Financial Incentives on Institutional Efforts to Improve Outcomes, by Institutional Capacity

	Community Colleges[a]				Universities			
Level	**High**	**Med**	**Low**	**Total**	**High 1**	**High 2**	**Low**	**Total**
High	4	7	15	26	6	17	13	36
Medium	2	2	7	11	6	7	7	20
Low/none	9	7	4	20	5	8	6	19
No coded response	24	19	10	53	20	5	12	37
Total mentions	39	35	36	110	37	37	38	112

[a] This question was added to our interview protocol after the interview process had concluded at OH CC1 and TN CC1.

Communication of program goals and methods. In Table 22, we summarize and group responses pertaining to state communication according to institutional capacity within each sector. There is no clear pattern in the number of respondents reporting that their college received no communication from the state. We note that we received more examples of state face-to-face communication from participants at low-capacity community colleges (but not low-capacity universities) and that participants at low-capacity universities generally offered a more even distribution of communication modalities than their counterparts at high-capacity universities.

Table 22
State Communication of Goals and Methods, by Institutional Capacity

	Community Colleges				Universities			
Modality	**High**	**Med**	**Low**	**Total**	**High 1**	**High 2**	**Low**	**Total**
Face-to-face	6	5	14	25	21	26	29	76
Non-face-to-face	6	6	7	19	19	16	27	62
Via upper admin	7	5	9	21	6	16	22	44
None	5	9	6	20	5	4	9	18
Total mentions[a]	24	25	36	85	51	62	87	200

[a] Our respondents could cite more than one modality of communication, so the total number of mentions is not the same as the total number of respondents mentioning communication modalities. Our total mentions are lower for community colleges because we did not systematically ask about communication modalities until we began our university interviews.

Table 23 breaks down responses about colleges' communication of goals and methods according to institutional capacity. There are no clear differences between institution types in the likelihood of participants saying they received no communication from the college. Moreover, there is an inconsistent pattern where respondents at high-capacity community colleges reported more instances of face-to-face communication than did those at lower capacity colleges, while the reverse is true for universities.

Table 23
College Communication of Goals and Methods, by Institutional Capacity

	Community Colleges				Universities			
Modality	**High**	**Med**	**Low**	**Total**	**High 1**	**High 2**	**Low**	**Total**
Face-to-face	29	16	22	67	26	38	44	108
Non-face-to-face	4	5	7	16	13	8	12	33
None	3	2	5	10	2	2	2	6
Total mentions[a]	36	23	34	93	41	48	58	147

[a] Our respondents could cite more than one modality of communication, so the total number of mentions is not the same as the total number of respondents mentioning communication modalities. Our total mentions are lower for community colleges because we did not systematically ask about communication modalities until we began our university interviews.

Communication of institutional performance. Our data concerning communication of institutional performance are broken down by institutional capacity in Table 24 and Table 25. For the most part, we do not see any clear patterns.

Table 24
State Communication of Institutional Performance, by Institutional Capacity

	Community Colleges				Universities			
Modality	**High**	**Med**	**Low**	**Total**	**High 1**	**High 2**	**Low**	**Total**
Face-to-face	1	1	4	6	5	4	7	16
Non-face-to-face	6	5	6	17	14	13	24	51
Via upper admin	7	10	6	23	5	3	11	19
None	9	13	12	34	14	17	14	45
Total mentions[a]	23	29	28	80	38	37	56	131

[a] Our respondents could cite more than one modality of communication, so the total number of mentions is not the same as the total number of respondents mentioning communication modalities. Our total mentions are lower for community colleges because we did not systematically ask about communication modalities until we began our university interviews.

Table 25
College Communication of Institutional Performance, by Institutional Capacity

	Community Colleges				Universities			
Modality	**High**	**Med**	**Low**	**Total**	**High 1**	**High 2**	**Low**	**Total**
Face-to-face	10	6	11	27	22	12	14	48
Non-face-to-face	10	13	13	36	18	8	2	28
None	7	3	5	15	4	1	4	9
Total mentions[a]	27	22	29	78	44	21	20	85

[a] Our respondents could cite more than one modality of communication, so the total number of mentions is not the same as the total number of respondents mentioning communication modalities. Our total mentions are lower for community colleges because we did not systematically ask about communication modalities until we began our university interviews.

Capacity building. Table 26 displays responses regarding respondents' perceptions of state capacity-building efforts. For the most part, we see little variation on the main pattern described earlier: Our respondents perceived very little effort by the state to provide capacity-building help. This holds even for low-capacity colleges, which would need the most help.

Table 26
Perceived Extent of State Capacity-Building Efforts, by Institutional Capacity

	Community Colleges				Universities			
Level	**High**	**Med**	**Low**	**Total**	**High 1**	**High 2**	**Low**	**Total**
High	0	0	2	2	0	0	0	0
Medium	1	4	0	5	0	1	0	1
Low/none	27	17	31	75	26	30	33	89
No coded response	11	14	3	28	12	5	5	22
Total mentions	39	35	36	110	38	36	38	112

6. Differences by Institutional Position of Interviewees

We are also interested in whether our respondents' perceptions of performance funding varied by their position within the institution. Responses in this section are grouped according to position within a higher education institution: senior administrators (presidents and vice presidents reporting to them); mid-level nonacademic administrators (such as the director of institutional research); mid-level academic administrators (for example, deans of arts and sciences); and faculty (chairs of departments and of the faculty senate). Generally, we find that senior administrators were the ones most likely to report an impact of state incentives and of state and college efforts to communicate the goals of the performance funding program and institutional performance on the state metrics. They were also the ones most likely to report the use of face-to-face communication, either by state officials or by college administrators themselves. Faculty typically were the ones whose responses most differed from those of the senior administrators.

Financial incentives. From Table 27, we note that 56 percent of senior administrators rated the financial incentives of the performance funding program as having a high impact on college efforts to improve student outcomes (33 of the 59 who addressed the question). Meanwhile, the percentages for the other categories of respondents were 10 to 15 percentage points lower. As discussed earlier, senior administrators tend to have greater involvement with budget processes and thus may be more likely to see just how the dollars drive decision making.

Table 27
Perceived Impact of Financial Incentives on College Efforts, by Position Within Institution

Level	Community Colleges					Universities					Grand Total
	Senior Admin	Mid-Level Non-Academic Admin	Mid-Level Academic Admin	Faculty	Total	Senior Admin	Mid-Level Non-Academic Admin	Mid-Level Academic Admin	Faculty	Total	
High	17	5	5	4	31	16	6	5	9	36	67
Medium	2	2	3	3	10	4	5	5	6	20	30
Low/none	11	4	4	1	20	9	1	3	6	19	39
No coded response	8	8	14	19	49	13	4	8	12	37	86
Total	38	19	26	27	110	42	16	21	33	112	222

Communication of program goals and methods. Table 28 and Table 29 summarize responses pertaining to the communication of performance funding program goals and methods according to respondents' positions within their institutions. While participants may have given a variety of examples, we find it interesting that administrators reported more examples of state communication per se and reported more face-to-face communication than non-face-to-face communication, while other kinds of respondents mentioned roughly equal amounts of each. We also find that university-based faculty and academic administrators more often indicated a lack of state communications than did other university respondents. If state officials more often direct their communications to senior administrators, as we noted earlier, faculty and mid-level administrators may be less aware that communication is taking place. It is important to note that our interview protocol asked respondents to provide examples of communication venues, even if they were not directly involved in the communications that took place there. Perceptions of community college participants are not as clearly delineated, though senior administrators again were the least likely to report no state communication.

With regard to college communication of performance funding goals and methods, the main difference we see is that senior administrators more often reported receiving information. Faculty were the most likely to report no college communication.

Communication of institutional performance. Senior administrators again were the most likely to report state communication about institutional performance on the state metrics and the most likely to report face-to-face communication, as shown in Table 30. Again, faculty were the most likely to report no state communication. With regard to intra-college communication of institutional performance, we find that, not surprisingly, senior administrators more often reported some form of communication than did other kinds of respondents (see Table 31).

Table 28
State Communication of Program Goals and Methods, by Position Within Institution

Modality	Community Colleges					Universities					Grand Total
	Senior Admin	Mid-Level Non-Academic Admin	Mid-Level Academic Admin	Faculty	Total	Senior Admin	Mid-Level Non-Academic Admin	Mid-Level Academic Admin	Faculty	Total	
Face-to-face	13	3	3	5	24	28	7	16	25	76	100
Non-face-to-face	11	3	1	3	18	17	8	14	23	62	80
Via upper admin	7	4	6	4	21	20	2	10	13	45	66
None	6	5	3	6	20	5	1	10	11	27	47
Total mentions[a]	37	15	13	18	83	70	18	50	72	210	293

[a] Our respondents could cite more than one modality of communication, so the total number of mentions is not the same as the total number of respondents mentioning communication modalities. Our total mentions are lower for community colleges because we did not systematically ask about communication modalities until we began our university interviews.

Table 29
College Communication of Program Goals and Methods, by Position Within Institution

Modality	Community Colleges					Universities					Grand Total
	Senior Admin	Mid-Level Non-Academic Admin	Mid-Level Academic Admin	Faculty	Total	Senior Admin	Mid-Level Non-Academic Admin	Mid-Level Academic Admin	Faculty	Total	
Face-to-face	23	10	17	17	67	44	13	18	33	108	175
Non-face-to-face	6	5	1	4	16	13	2	4	14	33	49
None	1	2	2	4	9	1	0	1	4	6	16
Total mentions[a]	30	17	20	25	92	58	15	23	51	147	239

[a] Our respondents could cite more than one modality of communication, so the total number of mentions is not the same as the total number of respondents mentioning communication modalities. Our total mentions are lower for community colleges because we did not systematically ask about communication modalities until we began our university interviews.

Table 30
State Communication of Institutional Performance, by Position Within Institution

Modality	Community Colleges					Universities					Grand Total
	Senior Admin	Mid-Level Non-Academic Admin	Mid-Level Academic Admin	Faculty	Total	Senior Admin	Mid-Level Non-Academic Admin	Mid-Level Academic Admin	Faculty	Total	
Face-to-face	3	2	3	0	8	9	2	4	1	16	24
Non-face-to-face	14	1	1	1	17	21	14	8	8	51	68
Via upper admin	9	2	5	6	22	10	1	4	4	19	41
None	7	9	9	9	34	15	6	8	16	45	79
Total mentions[a]	33	14	18	16	81	55	23	24	29	131	212

[a] Our respondents could cite more than one modality of communication, so the total number of mentions is not the same as the total number of respondents mentioning communication modalities. Our total mentions are lower for community colleges because we did not systematically ask about communication modalities until we began our university interviews.

Table 31
College Communication of Institutional Performance, by Position Within Institution

Modality	Community Colleges					Universities					Grand Total
	Senior Admin	Mid-Level Non-Academic Admin	Mid-Level Academic Admin	Faculty	Total	Senior Admin	Mid-Level Non-Academic Admin	Mid-Level Academic Admin	Faculty	Total	
Face-to-face	16	6	2	3	27	14	10	10	14	48	77
Non-face-to-face	13	7	9	7	36	8	4	6	10	28	32
None	3	3	5	4	15	3	1	3	2	9	24
Total mentions[a]	32	16	16	14	78	25	15	19	26	85	133

[a] Our respondents could cite more than one modality of communication, so the total number of mentions is not the same as the total number of respondents mentioning communication modalities. Our total mentions are lower for community colleges because we did not systematically ask about communication modalities until we began our university interviews.

Capacity building. Given that 95 percent of our respondents commenting on state capacity building efforts rated those efforts as low or nonexistent, we do not tabulate these data according to institutional position. We note that the two respondents who gave their state high marks were a senior administrator and a mid-level academic administrator at the same community college. Of the six individuals who rated their state efforts as medium, three were senior administrators and three were mid-level administrators, almost all at community colleges. No faculty member gave a medium or high rating to their state's efforts to build institutions' capacity.

7. Summary and Conclusion

Our interviews with campus personnel yield substantial evidence that performance funding programs in Indiana, Ohio, and Tennessee are influencing higher education institutions through financial incentives, awareness of state priorities, and awareness of institutional performance. However, we find little evidence that building up institutional capacity was a significant policy instrument used by our three states.

Financial incentives create motivation for local actors to chase goals that are determined by policymakers, including retaining more students and producing more graduates. Insofar as institutions are revenue-hungry, we find evidence that college leaders are following the money and that college personnel further down the institutional hierarchy (e.g., faculty and mid-level administrators) are aware that outcomes, and their improvement, affect the institution's bottom line. Attaching portions of a college's bottom-line funding to student outcomes was enough to get the attention of campus-level actors, even if they did not perceive that performance funding was yet having a significant impact on institutional revenues.

Providing information as to what the state priorities are and just how the performance funding policy is intended to function can further help align the motivations of policymakers and campus personnel. State actors in all three states mentioned extensive efforts to discuss their programs' respective goals and methods with local personnel, though outreach efforts and information penetration varied across these states.

Only 13 percent of those respondents discussing their state's communication of the goals and methods of performance funding mentioned that there was no communication.

However, our data indicate that state efforts to mold institutional action by providing information about how the institutions were performing on the state metrics were spottier than their efforts to provide information about state goals. Over a third (36 percent) of those respondents discussing state communication of institutional performance mentioned receiving no communication from the state. Moreover, a large proportion of our respondents gave us no response when we asked them what impact state communication of institutional performance may have had on institutional efforts to improve student outcomes.

Three quarters of the examples of state communication with officials and staff at the institutions involved direct communication, whether face-to-face in meetings or through such means as email blasts. The remainder occurred indirectly, through college administrators who received information from the state and then retransmitted it to the rest of their college. Despite similarities in venue and modality for communication of state goals and for communication of institutional performance, our respondents reported that state officials used face-to-face meetings with college leaders and college personnel more often to talk about program goals and methods than to talk about institutional performance (41 percent of mentions versus 29 percent).

We find little evidence that building up organizational capacity—in particular, data-analytic capacity—was an important policy instrument used in the implementation of performance funding. Among respondents who rated the extent of state efforts to build up institutional capacity, 95 percent rated it as low or nonexistent. While we did receive some reports of workshops for the sharing of best practices, the broad theme was that this potential policy instrument was not at work. The lack of effort in this area may seriously hamper institutions' abilities to respond to performance funding. Institutions may be on board with the goals espoused by policymakers, either due to financial incentives or due to the program's alignment with their own goals for improvement, and they may have data that show where they are falling short. But if institutions do not have the capacity to figure out *how* and *why* those shortfalls are occurring, they will be hindered in their ability to improve (for more, see Pheatt et al., 2014).

The three programs we studied are not identical even if they are cut from similar cloth. All three states have instituted PF 2.0 programs, but the programs differ in how much of the state allocation is based on outcomes and what indicators drive that allocation. On the whole, Tennessee stood out with respect to the other states. Respondents in Tennessee more often reported a large impact from financial incentives on college operations than did their counterparts in Ohio and Indiana. No doubt this is testimony to the very high proportion of state funding that is attached to performance metrics in Tennessee. With the share of state appropriations based on outcomes increasing dramatically for Ohio community colleges in fiscal years 2014 and 2015, we would anticipate a narrowing of these differential perceptions. We also received responses suggesting that efforts by state officials to communicate the goals and methods of performance funding and institutional performance on the state metrics were more extensive and had more impact in Tennessee than in the other states. We attribute this to the state's long history of extensive collaboration between state officials and institutional officials in the design and revision of performance funding programs (Dougherty & Natow, in press). On the other hand, Tennessee was little different from the other states in its provision of capacity-building assistance to institutions.

In the cases of Tennessee and Ohio, our data also enabled us to compare the application of our four policy instruments in earlier and later iterations of their performance funding programs. We compared Tennessee's original 1979 program with the new outcomes-based formula it created in 2010. We also examined the differences between the original form of Ohio's 2009 enactment and its revision in 2013. In Tennessee, we found that the policy instruments generally had a greater impact for the later program than for the earlier program. While our data for Ohio are more speculative, since our interviews were conducted before the 2013 changes had been implemented, some interviewees anticipated that the 2013 program would have a greater impact than the 2009 version. That respondents in both states perceived the later programs to have a greater impact than the earlier programs is not surprising, since both later programs based a much higher portion of state appropriations on performance indicators.

Several important differences emerged when we compared the responses from interviewees at community colleges and universities. Although most respondents at both

community colleges and universities stated that performance funding had little to no impact on their institutional budgets, a higher percentage of university respondents rated the financial incentives as having a medium or high impact on their institution's efforts to improve student outcomes. This could be partially due to the additional year of implementation of the funding formula that had occurred when we conducted our university interviews. In addition, in Ohio, the state funding formula for community colleges had a much smaller performance funding component than did the university formula until recently. With regard to state communication of performance funding goals and methods, community college respondents more often mentioned receiving no communication from the state than did their university counterparts. However, they were also more likely to state that awareness of state goals and methods had a high impact on their college's efforts to improve outcomes. With regard to state communication of institutional performance, there was no difference in the proportion of respondents reporting no communication from the state. However, community college respondents more often mentioned face-to-face communication than did university respondents. In the universities, respondents cited non-face-to-face communication (e.g. via email and websites) more than three times as often as they cited face-to-face communication. Again, community college respondents were more likely to state that awareness of institutional performance on the state metrics had a high impact on college efforts to improve student outcomes. Reports of state use of institutional capacity building as a policy instrument were equally uncommon at community colleges and universities; according to nearly all respondents, the state had provided little or no assistance in this area.

Organizational capacity was also associated with some differences in how institutions reported responding to the policy instruments, but they were less striking than the differences by institutional type. While perceptions of immediate financial impacts did not vary greatly, respondents at low-capacity community colleges and universities more often reported than their peers at high-capacity colleges that financial incentives had a high impact on institutional efforts to improve student outcomes. There is no clear pattern in the number of respondents reporting that their colleges received no communication from the state about goals and methods, or that college administrators did not communicate about them. However, participants at low-capacity colleges offered

more examples of face-to-face communication from state officials about state goals. We did not see any clear differences by college capacity in state or college communication of institutional performance. It is possible that state officials communicated more often face-to-face about state goals and methods with low-capacity colleges in order to help them succeed. However, our respondents at low-capacity colleges were no more likely to report that their colleges received capacity-building help from the state than were respondents at high-capacity colleges.

Finally, our analysis of how perceptions of the policy instruments varied by respondents' position within an institution revealed some variations between senior administrators, mid-level nonacademic administrators, mid-level academic administrators, and faculty. Generally, senior administrators were the most likely to report an impact of state incentives and state and college efforts to communicate the goals of the performance funding program and institutional performance on the state metrics. They were also the most likely to report the use of face-to-face communication by state officials. Faculty typically differed the most from senior administrators in their perceptions.

As policymakers consider implementing new programs or revising existing programs, they must carefully consider the ways in which they construct the policy instruments through which performance funding will become operational. We find evidence to support the notion that tying a greater share of state allocations to performance does help capture attention, but the relationship lacks precision. Increasing the performance share of state appropriations is no panacea, if the state share of institutional revenues drops, with tuition dollars becoming ever more important. Moreover, even if increasing the performance share of state appropriations does lead to improved student outcomes—something which has not yet been settled (see Dougherty & Reddy, 2013)—it might also produce greater negative side effects (see Lahr et al., 2014).

As noted, policies can only be effective to the extent that they are properly publicized and understood by those responsible for ground-level execution. Policymakers who are considering performance funding programs, or who are involved in program implementation, must ensure that personnel on campuses are properly informed about the importance of the program goals and the mechanisms through which the program will operate. State officials can certainly take their message to the road, as policymakers in

Tennessee did, but they will still need to rely on internal campus communication to get the word out. State leaders would benefit from helping campus leaders develop ways to better disseminate information about performance funding goals and institutional performance on state metrics. It is particularly important to find ways to push through the barriers to effective communication with faculty.

Finally, if institutions are to successfully engage in the processes required by performance funding programs, they must have sufficient internal capacity to not only conduct analyses but also interpret the results and act on them (Jones et al., 2014; Pheatt et al, 2014; see also Witham & Bensimon, 2012). State officials might furnish resources to facilitate the installation of software and database systems that do more than register enrollments, and allow sophisticated analyses of student outcomes. Further, state policymakers should consider creating opportunities for professional development in research skills not only for institutional researchers but also for faculty and course instructors who need to analyze student outcomes in their courses.

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Appendix A: Characteristics of Our Three States

Table A.1
The States Studied: Program, Political, and Socioeconomic Characteristics

Characteristic	Indiana	Ohio	Tennessee
1. Year PF adopted			
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	2 and 4 years	2 and 4 years	2 and 4 years
3. PF 2.0 (outcome indicators) share of state public higher education funding	6% of state higher education funding in FY 2013–2014.	80% of university funding and 50% of community college funding in FY 2013–2014	About 85–90% of state appropriations for higher education, with the rest accounted for by utilities, major equipment, etc.
4. State higher education governance structure at the time of enactment of PF 2.0 program			
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. Population (2010)	6,484,000	11,537,000	6,346,000
6. Personal income per capita (2010)	$34,943	$36,395	$35,307
7. Persons 25 years and over with bachelor's degree or more (2009)	22.5%	24.1%	23.0%

Sources:
1, 2. Dougherty & Reddy (2013).
3. Authors' interviews.
4. McGuinness (2003) and authors' interviews.
5. U.S. Census Bureau (2012).
6. U.S. Census Bureau (2012). Figures are in current dollars. U.S. average is $40,584.
7. U.S. Census Bureau (2012). Average for the United States is 27.9 percent.

Appendix B: Performance Funding Programs in Indiana, Ohio, and Tennessee

The performance funding programs in our three states are all PF 2.0 programs—that is, they all involve embedding performance funding indicators in the base state funding for higher education. However, the programs differ considerably in the amount of state funding they provide based on performance indicators and in the precise way they embed the indicators. Tennessee and Ohio use a formula to determine state funding for higher education operations, and about four fifths of the funding of those operating appropriations is based on performance indicators. In Indiana, however, performance funding involves a much smaller amount (6 percent of state operational funding), and that funding involves both bonus funding and withheld funding that is paid back based on performance.

Indiana

Indiana first adopted performance funding in 2007 in the form of a bonus on top of the base state funding for higher education (HCM Strategists, 2011). However, this program was quickly replaced in 2009 by a new program in which 5 percent of each institution's base allocation is withheld and then awarded based on performance on certain metrics. In the 2011–2013 biennium, this 5 percent withholding amounted to roughly $61 million (Indiana Commission for Higher Education, 2013, p. 8). In 2013, the state general assembly decided to hold performance funding at 6 percent for both fiscal years 2014 and 2015 but changed the allocation method. The 6 percent devoted to performance funding was split between 3.8 percent in "new money" and 2.2 percent from funds withheld from institutional appropriations. The portion that is withheld is put into a funding pool, and institutions can then earn back some or all of that withheld funding, depending on how well they perform during the year and how well other institutions perform (Authors' interviews IN).

The performance funding indicators are designed to measure change over time, based on comparing two three-year averages of institutional performance (Indiana Commission for Higher Education, 2013). For each metric, the performance funding formula takes the average performance across three years and compares it to the average for the preceding three years (e.g., for determining funding withheld in 2012, the average number of degree completions each year from 2009–2011 compared to the average

number of completions each year between 2006–2008). If an institution's performance does not improve, the funding formula simply counts their improvement as "zero." An institution's allocation through the performance funding formula is based on how well its performance compares to the performance of all other comparable institutions. For the 2013–2015 biennium, it is possible for the overall effect of performance funding to be a loss if an institution (1) wins only a small portion of the new money bonus and (2) is not able to earn back all of the 2.2 percent that was withheld to help fund the performance funding program. Moreover, an institution is not funded for its performance if its overall rate of completion drops between the two three-year averages (even if the overall number of completions increased). In total, a school's eventual state appropriation includes base funding (which can fluctuate from year to year based on enrollment), new money that is earned on the basis of the performance indicators, and the portion of the funds withheld the year before that the institution was able to win back based on its performance in the previous three years.

The performance funding indicators Indiana has used have changed each biennium. However, certain indicators have persisted (Indiana Commission for Higher Education, 2013):

- change in number of degrees awarded (2009–2011, 2011–2013, 2013–2015 biennia);
- change in number (or rate) of resident, undergraduate, first-time, and full-time students graduating on time (2009–2011, 2011–2013, 2013–2015);
- change in degree completion by low-income students (2009–2011, 2011–2013, 2013–2015); and
- change in number of successfully completed credit hours (2009–2011, 2011–2013).

Over the years, these four indicators have accounted for 70 to 84 percent of the performance funding allocation. The Indiana Commission for Higher Education added two new metrics in the 2013–2015 biennium: an institutional defined productivity metric and high-impact degree completion.

Ohio

Ohio established two performance funding programs in the mid-1990s and then replaced them with a new program established in 2009. In 1995, Ohio adopted the Performance Challenge, which—though largely not a performance funding program—rewarded community colleges, technical colleges, and branch campuses based on the number of students who transferred or relocated after completing at least 15 quarter hours or 10 semester hours of coursework and on the number of transfer or relocated students who completed baccalaureate degrees (Dunlop-Loach, 2000, Appendix B). The Performance Challenge was abandoned in 2000 (Moden & Williford, 2002, pp. 174, 176).

In 1997, Ohio established the Success Challenge via a funding proviso in the budget bill for the 1997–1999 biennium (HB 215, passed in 1997). Until it ended in 2009, the Success Challenge provided a bonus to universities based on the number of students who earned baccalaureate degrees. Two thirds of the bonus was based on the number of at-risk students graduating in any year; one third was based on number of any students who graduated within four years. The metric was *the number graduating* and not the graduation rate (percentage graduating) within four years (Moden & Williford, 2002, pp. 173–178). The Success Challenge began small, with $2 million in FY 1997, but funding rose rapidly in subsequent years, peaking at $56 million in FY 2004. The money was unrestricted; it could be included in the institutions' overall budget and used in any way the institution elected (Dougherty & Natow, in press; O'Neal, 2007, pp. 49, 179–189).

In 2009, Ohio passed a budget bill embedding performance indicators in the state's formula for funding higher education operations. As a result, the Success Challenge was terminated. For the public universities, the state determined that 80 percent of state operational funding would be based on course and degree completions, with the remainder being set aside for doctoral and medical education. The degree completion share rose from 15 percent in FY 2011 to 50 percent in FY 2013 (Alstadt et al., 2012; Ohio Board of Regents, 2011b, 2012, 2013b). Meanwhile, the proportion based on course completions dropped from 65 percent in FY 2011 to 30 percent in FY 2013. (The 20 percent set aside for doctoral and medical education remained steady.) For the 24 regional campuses of the state universities, funding initially was based solely on course completions. These campuses will become subject to the same formula as the university

main campuses in FY 2014 (Ohio Board of Regents, 2011c, 2013b). Course and degree completions for the university main and regional campuses are weighted by the cost of programs and whether students are at risk, defined initially in terms of eligibility for state need-based aid but later expanded to include other categories of at-risk students as well (Ohio Board of Regents, 2011c, 2013b; Petrick, 2010).

For community colleges, the proportion of the state formula allocated on the basis of performance indicators started at 5 percent in FY 2011, jumped to 50 percent in FY 2014, and will rise to 100 percent in FY 2015 (Ohio Association of Community Colleges, 2013; Ohio Board of Regents, 2011a, 2012, 2013a). For fiscal years 2011 through 2013, the performance indicators took the form of "success points": (1) number of students completing developmental English and math and subsequently enrolling in a college-level course in those subjects; (2) number attaining certain credit thresholds in a given year; (3) number who earn at least an associate degree, from that institution, in a given year; and (4) number who transfer (that is, enroll for the first time at university having completed at least a certain number of semester credit hours of college-level coursework at a community college). Degree completions are weighted by program costs. There has not been any weighting for whether students are at risk. In FY 2014, course completions accounted for 25 percent of the state funding formula for community colleges, the success points made up another 25 percent, and the enrollment-based share dropped to 50 percent (Ohio Board of Regents, 2013a). For FY 2015, a Community College Funding Consultation led by the Ohio Association of Community Colleges has recommended that success points continue to account for 25 percent, course completions rise to 50 percent, and degree completions (previously part of the success points) account for 25 percent. Enrollments would cease to be part of the formula (Ohio Association of Community Colleges, 2013).

Universities and community colleges have been cushioned against losses by a stop-loss provision that ensured they would get at least a certain proportion of their state funding. For FY 2010, the stop loss was 99 percent for universities (community colleges were still not subject to the new formula). For FY 2011, the stop loss was 98 percent for universities and for community colleges. For FY 2012, the figures were 82.5 percent for universities and 88 percent for community colleges (these figures reflected the end of

federal stimulus funding). For FY 2013, the stop-loss figure was 96 percent for both kinds of institutions (Ohio Board of Regents, 2009a, p. 6; 2011a, p. 6; 2011b, p. 11). The stop loss was ended for universities in FY 2014 and will be ended for community colleges in FY 2015 (Ohio Board of Regents, 2013a, 2013b; Ohio Association of Community Colleges, 2013).

Tennessee

Tennessee has established two performance funding programs: a PF 1.0 bonus program that was adopted in 1979 and still operates today, and a PF 2.0 outcomes-based formula funding program that was adopted in 2010 (Dougherty & Reddy, 2013). The older program is intended to serve as a "quality assurance" bulwark for the new program (Authors' interviews TN).

The Tennessee Higher Education Commission adopted performance funding for the state's public two- and four-year higher education institutions in 1979 (Dougherty & Natow, in press; Dougherty, Natow, Bork, Jones, & Vega, 2013). Funds were first allocated to institutions using performance funding in FY 1980. Under that system, higher education institutions could earn a bonus of 2 percent over and above their annual state appropriations for achieving certain goals based on five performance indicators: program accreditation (proportion of eligible programs in the institution's inventory that are accredited); student major field performance (student performance as assessed by major field examinations); student general education performance; evaluation of instructional programs (based on surveys of current students, recent alumni, or employers); and evaluation of academic programs (by peer review teams of scholars from institutions outside the state and/or practicing professionals in a field) (Banta, 1986, pp. 123–128; Bogue & Johnson, 2010). Tennessee added eight performance funding indicators and dropped four between 1979–1980 and 2009–2010. In addition, the percentage of additional funding that institutions could earn based on performance rose from 2 percent to 5.45 percent of the base state appropriation (Bogue & Johnson, 2010; Dougherty & Natow, 2010; Dougherty & Natow, in press).

In 2010, the Tennessee legislature passed the Complete College Tennessee Act, part of which provided for a dramatic redesign of the basic higher education funding formula that would embed performance indicators in that formula (Dougherty, Natow, et

al., 2014; Dougherty & Natow, in press). During the first year of the new system's operation in FY 2011, university funding was based on the following indicators: numbers of students reaching 24, 48, and 72 hours of credit; research and service expenditures; number of degrees awarded (bachelor's and associate, master's and education specialist, and doctoral and law degrees); number of degrees per full-time equivalent (FTE) student; number of transfers with at least 12 credit hours; and six-year graduation rate (Tennessee Higher Education Commission, 2011b, p. 1). Community colleges were funded based on somewhat different criteria: number of students reaching 12, 24, and 36 hours of credit; workforce training contact hours; number of dual enrollment students; number of associate degrees and certificates granted; number of awards per FTE enrollments; job placements; number of transfers with 12 credit hours; and remedial and developmental success. In addition, an institution is eligible for a 40 percent bonus for credit and degree completion for low-income and adult students. To protect institutions, the new program has been gradually phased in over a three-year period, with the phase-in ending after FY 2014 (Dougherty & Natow, 2010; Dougherty & Natow, in press; Tennessee Higher Education Commission, 2011a, 2011b, 2012a, 2012b).

The Tennessee formula and allocation process is quite complex. Each indicator is weighted, but each institution has different weights assigned to each indicator by the Tennessee Higher Education Commission based on a variety of factors, including, but not limited to, the institution's preferences and Carnegie classification. Three-year rolling averages are first scaled, then multiplied by institution-specific weights, and finally totaled for institutional weighted outcomes totals. These totals include extra weighting for adult learners and low-income students on indicators for credit accumulation and degree production (Tennessee Higher Education Commission, 2011b, 2012a, 2012b). The institution's total weighted outcomes value is then multiplied by the average faculty salary, as determined by Carnegie classification and by the Southern Regional Education Board. Fixed costs and equipment costs are added to create a formula subtotal. At this point, the institution's performance funding allocation is calculated by multiplying the institution's percentage on the program indicators by 5.45 percent of the institution's subtotal. This is added to the subtotal to give the institution's total. The formula then assumes a 55/45 subsidy/fee policy, so the total is then multiplied by 55 percent, out-of-

state tuition is deducted, and there is finally a budget recommendation by the Tennessee Higher Education Commission. For the 2014–2015 appropriation, the legislature funded 62.8 percent of the Tennessee Higher Education Commission's recommendation (Tennessee Higher Education Commission, 2014a).