

## **Performance Funding in the States: An Increasingly Ubiquitous Public Policy for Higher Education**

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*Performance funding for higher education has experienced a renaissance in recent years. More states have adopted or are in the process of adopting performance funding models, an accountability tool that allocates state appropriations based on college performance on predefined metrics. This paper provides a comprehensive literature review of past and current topics in performance funding, such as performance metrics, policy design, institutional knowledge, and institutional responses. Specific state examples, including Tennessee, Pennsylvania, and Washington, illustrate main points about policy implementation and impacts. Unintended consequences of performance-based funding are also discussed by exploring troublesome examples of policy “side effects”. This paper concludes with major policy and practice recommendations from the literature.*

While performance funding for public institutions of higher education has a 30-year history, the renewed interest has led to a proliferation of new and revised models during the past decade. In an environment of decreased taxpayer revenue and increased governmental and public scrutiny, as many as 25 states currently operate, are implementing, or plan to implement performance-based funding (Dougherty, Natow, Hare, Jones, & Vega, 2011; NCSL, 2014). Policymaker such as governors and legislators are highly supportive of performance funding, while colleges are more hesitant but still agree that performance should be considered when allocating public funds (Burke, 2002). Since Tennessee first adopted performance funding (PF) for public higher education in 1979, these policies have gained and waned in popularity (Banta, Rudolph, Dyke, & Fisher, 1996). Also termed performance-based funding, outcomes-based funding, or incentive funding, PF uses financial incentives to motivate institutions to improve student outcomes and college completion. Should these policies work as intended, student completion rates would rise, which subsequently increases the number of college graduates in the country, deemed necessary in a globally competitive marketplace (Bailey, 2007; Belfield & Levin, 2007). Defined, performance funding is a budgeting model that links state funding “directly and tightly to the performance of public campuses on individual indicators” (Burke & Minassians, 2004, p. 3).

Existing studies examine policy adoption, major proponents and opponents, performance metrics, and policy design. Studies investigate the processes behind state legislation and advocacy coalitions, and the college leaders who oversee campus-level policy implementation. Scholars have considered how states use financial consequences and rewards to shape institutional behavior (Burke, 2002; Burke & Minassians, 2004; Burke & Modarresi, 2001). Much research exists on the state-by-state indicators used in funding mechanisms and the differing viewpoints surrounding their measurement, value, and controversy (Cavanaugh & Garland, 2012; Miao, 2012). More recently, researchers have studied the impact of the more stable state performance funding models on graduation rates and degree completion (Belfield, 2012; Hillman, Tandberg, & Gross, 2014; Sanford & Hunter, 2011; Tandberg & Hillman, 2014).

The goal of this paper is to review literature on performance funding and the issues surrounding this increasingly prevalent public policy phenomenon. I summarize early and more recent performance funding studies. I first introduce the national landscape of performance-based

funding and describe differences between earlier and the later policy designs, which will set the stage for more detailed exploration of performance metrics and policy effects.

### **Performance Funding in the States**

Historically, public colleges were funded based on enrollment numbers. Colleges could depend on a set allocation of higher education appropriations from the state depending on their student enrollments. However, concerns over inadequate college completion rates have fueled the latest resurgence of external accountability and performance funding policies. Historically, states with performance funding policies link 1% to 6% of appropriations to institutional outcomes (Burke & Modarresi, 2001). Not surprisingly, performance funding is often abandoned amidst fiscal stress (Cavanaugh & Garland, 2012). During recessions, institutions are already strapped for resources and view performance initiatives as detrimental to their goal of preserving as much base funding as possible. This is particularly true since higher education has become the balance wheel of state budgets (Delaney & Doyle, 2011; Zumeta, 2010), and unlikely to enjoy the autonomy and resources it used to, regardless of future economic prosperity (Zumeta, 2012). The history of performance funding is unstable. Many states implement such programs and then later revise or discontinue them, often under economic duress.

In the era of accountability for higher education and new public management, state legislatures are increasingly adopting policies to improve public universities' efficient use of appropriations (Tandberg, 2009). Public concern over college costs and student loan debt, dismal college completion rates, and the economic uncertainty of investing in a college education have fueled the development of policies aimed at greater transparency and effectiveness (Conner & Rabovsky, 2011; D'Amico, Friedel, Katsinas, & Thornton, 2014; Volkwein & Tandberg, 2007). Calls to increase the number of college graduates and produce a highly skilled, well-prepared workforce have come from political leaders, foundations, policy organizations, research firms, and non-profits. Advocates and supporters include the Obama administration, Complete College America, the Bill and Melinda Gates Foundation, the Lumina Foundation, and the National Conference of State Legislatures (HCM Strategists, 2011, 2012; US Dept of Education, 2011). Experts on the topic predict that

performance funding is and will continue to be a mainstay in postsecondary education (Dougherty & Reddy, 2013).

Recent changes to performance funding policy have taken to heart policy recommendations to allocate a higher proportion of an institution's budget to outcome measures, which additionally highlights the importance and ubiquity of this topic. The percentage of funding tied to outcomes ranges widely, from 1% in Washington and Illinois, to 25% in Louisiana, and up to 100% in Tennessee and Ohio. Tennessee has always been at the forefront of performance-based funding for higher education, and has completely done away with enrollment-based funding (THECB, 2012; THEC, 2014). These developments illustrate that performance funding is building momentum (NCHEMS, 2011; NCSL, 2014).

Earlier literature on performance funding observes its traditional form (termed PF 1.0): new funds are allocated above and beyond regular state funding for higher education. Metrics were based primarily on "final" outcomes (e.g. retention, graduation, job placement). These models differ from new and presumably improved versions, PF 2.0, which uses both final outcomes and intermediate outcomes (e.g. course completion, credit attainment). More drastically, PF 2.0 policies embed performance funds into the base state funding formula; they shave funding off of existing state appropriations and allocate these "rewards". An understanding of the current national discussion of performance funding requires a detailed look at performance metrics and policy impacts. I subsequently organize this literature review into the following four topics, in order: (a) performance metrics, (b) impacts of performance funding, (c) unintended consequences, and (d) policy and practice recommendations.

### **Performance Metrics**

The state and the institution both participate in developing the performance metrics (measures, indicators, outcomes) that colleges must report on to receive state appropriations (McLendon, Hearn, & Deaton, 2006). Burke and Serban (1997) identified factors that affect performance funding: performance indicator selection, benchmarks, and amount of funding. I add to this list by also summarizing literature on institutional mission and intermediate versus ultimate metrics.

## **Mission Differentiation and Metric Selection**

Performance criteria have been studied from the very advent of outcomes-based funding. Indicators must be relevant to college missions, allow ease of data collection, permit generalizability across institutions, and be relevant to multiple stakeholders (Sanchez & Laanan, 1998). A decade ago, one study of 23 institutions in Tennessee found that given the diversity of campus missions and student populations served in a state, it is important to consider whether indicators ought to be applied in the same manner to say, a community college versus a research institution (Banta et al., 1996). These recommendations have taken hold in recent forms of performance funding.

Research on performance funding raised concerns about unintended consequences of using performance metrics, including possible weakening of academic standards and narrowing of institutional missions (Burke, 2002; Dougherty & Hong, 2006). The quest for measurable outcomes could potentially produce undesirable outcomes for student access and equity. For instance, faculty may feel pressured to pass students in courses of which passage rates are part of the performance funding formula. Community colleges may restrict their open access mission and seek to enroll students with better academic preparation in order to show satisfactory credit accumulation, if state funding depends on it (Dougherty & Reddy, 2013; Dougherty et al., 2013). Consequently, it is important to monitor the quality as well as the quantity of degrees earned and to design metrics appropriate for each institutional sector. Mission differentiation also applies to individual college campuses in the same system, taking into consideration the student populations served and the colleges' own strategic priorities.

Therefore, scholars are increasingly recommending that mission differentiation be recognized in performance metrics. For example, colleges serving higher proportions of lower-income students should get extra funding for their degree completions. Colleges should be allowed to choose some of their own metrics, appropriate for their individualized mission or priorities (Hillman, Kelchen, & Goldrick-Rab, 2013). Policies that allow different metrics for 2-year versus 4-year colleges provide some flexibility for mission differentiation. Weighting metrics differently based on institution and student characteristics also seeks to accommodate institutional differences (Miao, 2012), while consultation with institutions

on suitable metrics appears to improve the implementation of a new performance funding policy (HCM Strategists, 2011).

In Pennsylvania for example, a revised model for FY 2011-12 enjoyed strong efforts and collaboration among policymakers, which resulted in clearly defined indicators for the 14 universities in PASSHE, the Pennsylvania State System of Higher Education (Cavanaugh & Garland, 2012). These circumstances were also the case for Washington's newest iteration of performance funding, called the Student Achievement Initiative (SAI) and targeted at the state's 34 community and technical colleges. Policymakers selected performance metrics to better align with the mission of community colleges, incorporating lessons learned from Washington's first (failed) experiment with performance funding in 1997 to 1999 (Belfield, 2012; Ewell, 1998). Modern forms of PF are much more likely to account for institutional mission differentiation within their funding formulas.

Understandably, colleges have argued that performance on certain metrics is beyond their control. Job placement rates for graduates largely depend on local economic and workforce conditions. Also, if a student decides to leave college for well-paying employment, which happens in community college vocational programs, the college essentially loses points from the student "dropout" (Dougherty & Reddy, 2011). Students who transfer to an out-of-state institution are not captured by state formulas and the college experiencing a "drop out" does not earn points for the transfer. Therefore even when mission differentiation is part of a performance funding policy, performance metrics in their current state are still imperfect measures of student achievement, trajectory, and success. Nonetheless, in order for metrics to be meaningful, they must be compared to some benchmark.

## **Benchmarks for Comparison**

Tracking performance can take several different forms. The first compares an institution's performance over time, tracking improvements on itself (e.g. Washington). This method limits competition between colleges, typically seen as detrimental to the collaborative nature of higher education. Yet, it fails to reward colleges that are high performing at the start. A second way is to compare an institution's performance with its peers. In Louisiana, a college's performance on metrics is compared to its peers within the Southern Regional Education Board (Kinne, 2013). That

is, the 1<sup>st</sup>- to-2<sup>nd</sup>-year retention rate at a 4-year college in Louisiana would be compared to 1<sup>st</sup>-to-2<sup>nd</sup> year retention rates at similar colleges in the 16 SREB states, which includes Alabama, Florida, Georgia, Tennessee, and Virginia. A drawback of this benchmark is that peer institutions may not collect the same data, or their performance may fluctuate due to unaccounted reasons. A third way to benchmark is to set targets for each indicator, which is admittedly less common because it is a challenging policy task to establish appropriate preset goals. Benchmark choices vary by state, along with whether the metrics capture “intermediate” or “ultimate” outcomes, discussed next.

### **Intermediate and Ultimate Metrics**

A decade ago, Burke and Minassians (2004) identified four types of performance measures: inputs, processes, outputs, and outcomes. By definition, “Inputs are the human, financial, and physical resources received...Processes are the means of delivering programs, activities, and services...Outputs involve the quantity of products produced...Outcomes represent the quality of the benefit or impact of programs, activities, and services on students, states, and society” (p. 56). In more recent literature, performance indicators are typically placed in two broad categories: intermediate/momentum and ultimate. Both types have been featured in earlier versions of performance funding as well as more recent PF 2.0 programs. However, PF 2.0 places additional emphasis on indicators of intermediate achievement (Shulock, Offenstien, & Esch, 2011). To illustrate, Washington awards momentum points for students who pass key gatekeeper courses (e.g. math). Intermediate metrics tend to be more process-oriented and help facilitate the achievement of ultimate outcomes, which may have multiple causes or be somewhat remote in time. One common example is credit hour completion. In many states, colleges are rewarded for each student who reaches 12-, 24-, and 48-credits, based on a full-time 12-credit-per-term load. The intermediate metric here is credit completion, though the ultimate metric is degree completion. The number of degrees earned is supplemented in the performance-funding model by the intermediate credit completion achievements that must take place along the way.

In addition, state programs are increasingly focused on certain input indicators such as socioeconomic and racial characteristics (where feasible) of entering students. A degree earned by a student from a

traditionally underserved background is weighted more heavily (Dougherty & Reddy, 2011). Some states, including New Mexico, Illinois, Pennsylvania, and Indiana, have decided to award extra funding to colleges that serve low-income, first generation, or minority students. Completion of a degree by these students earns more points than completions by “traditional” students. States such as Pennsylvania and Indiana have also started incentivizing high-demand majors, namely STEM (science, technology, engineering, math). The extra funding that goes to students who complete degrees in these fields is another “carrot” offered by the state to shape institutional behaviors.

### **Amount of Funding Linked**

When discussing the amount of funding to link to performance metrics, historical context may be helpful. Banta et al. (1996) observed that the Tennessee Higher Education Commission had made “performance funding a particularly [nutritious] carrot rather than an accountability stick with which to flog institutions (p. 43).” At the time of the study, campuses received an additional 5.45% above their budgets. Ewell (1993) observed, “Tennessee higher education has maintained its share of available state dollars in comparison with other agencies and functions, a pattern that is rare elsewhere” (p. 162). Yet in recent years and predominantly in a climate of scarce public taxpayer monies, performance funding is allocated from the existing base budget, not as new money (the PF 2.0 versus PF 1.0 distinction made earlier). This policy setup incurs the possibility that the base could actually decrease when performance targets are not met.

For instance, Indiana cut each institution’s operating budgets by 5% to fund its performance formula policy and is moving from 5% in years 2011-13 to 7% by 2015 (Kinne, 2013). PF 2.0 models address policy lessons learned from PF 1.0: embed funding formulas into base allocations, which seeks to create stability even during economic downturns. These policies have been met with college resistance. The chief complaint from institutions is that this “incentive” money is taken off of regular money that colleges were supposed to receive, before the adoption of performance funding (Cavanaugh & Garland, 2012; Dougherty & Reddy, 2011; Jenkins & Shulock, 2013). However, the embedding of performance funding into state funding formulas is more omnipresent than ever. It is a policy decision that places pressure on

colleges to make the necessary programmatic and policy changes, whatever they might be, to help their students graduate.

### **Impacts of Performance Funding**

Since performance-funding policies were introduced in the states, researchers have attempted to empirically model whether such policies actually improve student outcomes. Earlier studies of a more descriptive nature, as well as recent quasi-experimental studies, have found mixed evidence of performance funding's effectiveness. The term effectiveness, used most commonly in the literature, refers to the degree to which a college improved its outcomes, measured by performance metrics across time and compared to some pre-intervention level or comparison group. Available studies are limited in supporting a causal link between the introduction of a performance funding policy and institutional-level results.

Interpreting findings requires a bit of healthy skepticism, mainly because there is significant variation among performance funding designs. Policies operate during different years and thus in different economic and political climates. Metrics vary, funding formulas vary, the amount and proportion of state funding varies, and of course the implementation of programs varies. Much of this implementation variation has not yet been studied. Available quantitative research also differs with respect to the states, years, and control variables used (institution-level controls, state-level controls).

What is more, obstacles to effective performance funding are numerous, including inappropriate measures, inadequate funding, instability of programs and limited longevity, institutional resistance, and gaming of the system, also termed unintended consequences (Dougherty & Reddy, 2011, 2013; Tandberg & Hillman, 2013). Further contributing to the complexity of this topic is the inconsistencies as to which states have operated performance funding regimes and in which years. Yearly data on performance funding policy activity come from self-report surveys of institutions, governing bodies, and from legislative documents and statutes. There is difficulty in tracking down which policy initiatives are codified into state statute when, and when institutions start being held accountable to performance policies (McLendon et al., 2006; Tandberg & Hillman, 2013). Inconsistent data makes the assignment of a "treatment

year” in an empirical analysis rather challenging. All in all, caution is advised when interpreting impacts of performance funding.

### **Ultimate Outcomes**

In a literature review of studies conducted on performance funding effects on graduation outcomes, Dougherty and Reddy (2011) found minimal evidence that performance policies had any impact. Studies reviewed used state-level data (Sanford & Hunter, 2011; Volkwein & Tandberg, 2007), and institution-level data (Shin & Milton, 2004; Shin, 2009). Rather shockingly, the researchers found “no statistically significant positive impacts of performance funding on 6-year graduation rates at public 4-year colleges” (Dougherty & Reddy, 2011, p. 27). Furthermore, improvements could be a simple fact of growing enrollments, given that overall enrollment swelled during the time periods studied. Or more troubling, an earlier study found that some community colleges deliberately changed degree requirements to make it easier for students to graduate (Dougherty & Hong, 2006), a worrisome “side effect” of performance funding to be discussed later. Multivariate studies of performance funding are scarce, though a new generation of researchers is starting to fill this research gap.

In a national study, Shin (2009) analyzed graduation rates at 467 institutions that participated in performance-based budgeting and performance funding from years 1997 to 2007. Using a hierarchical linear modeling growth curve analysis, the author concluded that states that adopted performance-based funding did not experience any significant improvement in outcomes. Granted, this study included states with performance-based budgeting systems, policies that are less prescriptive in tying funding to results.

A recent national study modeled the following outcome: total public BA degree completions within each state during each year, a proxy for total completions (Tandberg & Hillman, 2014). The researchers used data from 1990 to 2010. Control variables were total state population, percent of college students enrolled in public institutions, public 4-year tuition levels, public 2-year tuition levels, state need-based grant aid per student, state merit-aid per student, state appropriations to higher education, unemployment rates, the percentage of state’s population below the federal poverty level, share of adults with a bachelor’s degree or higher, per capita state gross domestic product, and the presence of state

performance funding policies affecting 4-year colleges and universities (Tandberg & Hillman, 2014). Employing a difference-in-differences model, the authors found that the introduction of a performance-funding regime in a state did not have a statistically significant impact on degree output during years immediately following the policy. In the 7<sup>th</sup> year following the year of performance funding adoption, degree completion increases were positive and significant, as they also were for the 8<sup>th</sup> and 11<sup>th</sup> year. The magnitude of impacts is small, 0.039 in year 7 and 0.047 in year 8, and a jump to 0.122 in year 11. The study suggests states that operate performance funding for longer periods of time are more likely to increase BA completions (Tandberg & Hillman, 2013, 2014). The effects of PF are lagged, yet many states discontinued their programs before these lagged effects could be fully felt.

Additionally, the same set of researchers conducted a study on community college completions over the same time period of 1990 to 2010. Results point to no overall effect of performance funding on AA degree completion. Some states experienced a positive impact (Minnesota, Missouri, New Jersey, Washington) while others experienced a negative impact (Colorado, Idaho, New Mexico, South Carolina, Texas, Virginia). Results in other states were not statistically significant (Tandberg, Hillman, & Barakat, 2014). These findings are rather unsettling considering the growing popularity of outcomes-based funding policies. As noted earlier, results should be interpreted with caution because of variation among states, student demographics, and institutional characteristics. Moving forward, scholars will be able to test the impact of PF 2.0 policies that have allocated high percentages of funding (25% or greater). Presumably, states that have operated these higher-stake policies for an extended number of years will show impacts on degrees obtained.

**Tennessee.** An early study of 23 Tennessee institutions found that interestingly, there was not a single Campus Coordinator who indicated that retention and graduation metrics were indeed “effective” in promoting improvement at the college level; the majority stated that the metric had “potential” or it was “too soon to tell” (Banta et al., 1996, p. 29). Campus respondents explained that institutional actors have little control over retention and graduation, since economic factors and students’ personal traits determined student persistence. This is a frequent criticism from institutions regarding the flawed logic of performance funding policies.

Also in Tennessee, Sanford and Hunter (2011) analyzed retention and graduation rates at public 4-year universities and compared data to

national peer institutions. Data covered the years 1995 to 2009. An increase in undergraduate retention and graduation was expected after years 1997 and 2005, when major performance funding changes<sup>1</sup> took effect. Tennessee added retention rates as an indicator in 1997. However, this did not produce significant differences in the rate of change for retention rates nor in graduation rates. Even after 2005, when the state doubled the amount of money linked to retention and graduation rates, outcomes did not change.

Since increasing the percentage of funds tied to performance from 2% to 5% did not show policy impacts, researchers concluded that 5% might not be enough to incentivize the institutional changes that would lead to improved graduation rates. As a result, the authors concluded that, despite monetary incentives, performance funding did not generate noteworthy policy impacts (Sanford & Hunter, 2011). Ongoing studies of Tennessee's performance funding history show that effects on student achievement are inconclusive, including one study on the 2002 cohort of first-time freshmen (HCM Strategists, 2011). Once the researchers control for student inputs such as academic preparation, the outcomes at the institution are no longer statistically significant. "While an institution may have a high graduation rate because it is effective in the delivery of instructional services, it is also possible that high graduation rates simply reflect the self-selection of better-quality students" (HCM Strategists, 2011, p.2).

In a separate study of Tennessee's earlier PF regimes, Bogue and Johnson (2010) note that the longevity of the state's performance funding policy (despite changing political and economic conditions), and periodic increases in the percentage funded, are evidence in and of itself that the policy is effective. One might note, however, that this appears to be primarily a political judgment of how policymakers perceive the effects of PF, not on rigorous empirical analysis of effects. Their point is relevant, however, given the unstable policy histories of PF in other states. From 1985 to 2002, graduation rates improved at Tennessee's public universities and community colleges, although potential causal factors were not tested. Similarly, job placement rates from 1993 to 2008 show stable and high employment rates for 2-year colleges based on survey data of graduates after a 1-year period following graduation (Bogue & Johnson, 2010). Yet,

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<sup>1</sup> This study does not include data from the latest version of TN's performance funding policy (PF 2.0).

the metrics and amount of funding tied to outcomes changed during the 15-year period studied so it is not clear whether policy were related to the actual policy, which was constantly being redesigned. Even though Tennessee offers the most stable performance-funding case study, literature on policy impacts in the state are cautiously optimistic, at best. Other states also serve as interesting case studies.

**Washington.** A study of Washington found that since the introduction of a performance funding program for community and technical colleges that awards “momentum points” for various proximate outcomes believed linked to graduation, the average college had increased its total points by 31% from 2007 to 2011 (Belfield, 2012). In the Washington State system, higher points are indicative of higher performance. An institution is evaluated using its own year-to-year improvement. Points-per-student also increased by 29%, and more students tended to enroll full-time, which will presumably impact graduation rates in the future. This suggests that the policy did partially accomplish goals by bolstering student progression and completion targets. Yet, it is unclear how much of Washington’s improvement is due to the policy or simply because colleges were forced to revamp their data tracking systems and as a result, count more students, in a manner that gives the appearance of better performance. Furthermore, studies on Washington are hesitant to claim any causal link between the adoption of performance funding and changes in student outcomes. The research on Washington state policies are still purely descriptive (Belfield, 2012; Jenkins, Wachen, Moore, & Shulock, 2012)<sup>2</sup>.

**Pennsylvania.** The movement towards quasi-experimental education research has prompted scholars to use sophisticated analytical techniques to test performance funding policy effects. One study used data from the Delta Cost Project and IPEDS in years 1990 to 2010 to estimate the effect of performance funding in Pennsylvania (Hillman et al., 2014). The outcome was BA degree completions per 100 undergraduate full time equivalent enrollments. The authors controlled for undergraduate racial diversity, education and general expenditures, operating revenues, and state and federal scholarships. From 2003-2010, institutions belonging to the Pennsylvania State System of Higher Education (PASSHE) were subject to performance funding, the “policy intervention”. PASSHE institutions were compared to several comparison groups (e.g. neighboring

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<sup>2</sup> Although, a study in progress by Hillman and Tandberg may offer additional insight on policy effects in Washington State.

states, all states). The study concluded that PASSHE institutions would have experienced the same or similar completion changes had performance funding never been implemented. On the other hand, descriptive reports of Pennsylvania concluded that in the past 10 years, graduation rates have increased about 10 percentage points, with a 15 percentage point jump for Latina/o students (Comstock, 2013). However, there is no clear connection between these improvements and the existence of performance funding.

### **Intermediate Impacts**

While research on the ultimate outcomes of performance funding is still a developing area of scholarly inquiry, evidence of intermediate institutional impacts has been better documented. Defined as organizational changes aimed at improving a college's student achievement metrics, these actions are in direct response to performance funding policies. Several categories of impacts are discussed in the literature: changes in academic policies; changes in student services; and changes in development/adult/remedial education (Dougherty & Hong, 2006; Dougherty & Reddy, 2013).

Organizational shifts in academic departments have occurred in Florida, Tennessee, and North Carolina. Overarching goals were to improve efficiency and also gain more performance points. For instance, Tennessee Technological University consolidated 17 majors into 4 in its undergraduate program (Lorber, 2001, cited in Dougherty & Reddy, 2013), and a Florida institution increased its offerings of associate of science programs to boost performance points for such degrees (Morris, 2002, cited in Dougherty & Reddy, 2013). When PF 1.0 operated in Tennessee, intermediate impacts included curriculum changes, increased assessment, evaluation of student orientations, and faculty development of better classroom tests (Van Dyke, Rudolph, & Bowyer, 1993). Particularly at two-year colleges, campus stakeholders found assessment findings to be useful tools to modify institutional behavior (Banta et al., 1996).

Improvements to developmental education were made in Washington colleges, similar to findings from previous performance funding programs in Tennessee, Ohio, Florida, and North Carolina (Dougherty & Reddy, 2013). Colleges were responsive in providing supplementary instruction such as tutoring or adult-focused education. Washington community colleges were especially motivated because the state's performance

funding policy used a point system heavily focused on basic education and the earlier years of a student's college trajectory (Jenkins et al., 2012).

Other areas of organizational change in response to performance funding took the form of revisions to student service policies, procedures, and programmatic offerings. These efforts streamlined the course registration process for students, provided better access to academic advising, increased connections to employers and internship opportunities, created first-year retention programs, and started the idea of a "one-stop shop" for student inquiries to prevent the bureaucratic run-around that undergraduates often experience when trying to get questions answered, especially at larger universities. These intermediate changes at colleges will hopefully improve retention and graduation for future cohorts of students.

### **Campus Awareness**

Colleges themselves play an instrumental role in the implementation of performance funding policy. Several studies have examined campus awareness of performance funding (Burke, 2002; Dougherty & Hong, 2006; Dougherty & Reddy, 2011; Jenkins, Wachen, Moore, & Shulock, 2012). One might expect that, to be effective as incentives, PF rewards need to be understood by the faculty, staff, and administrators who can influence student achievement on a day-to-day basis. By and large, researchers have found that knowledge of performance funding is unevenly distributed at institutions, based on hierarchy. Senior officials such as college presidents and vice presidents were most familiar with performance funding initiatives affecting their campus, followed by mid-level administrators such as deans. The next group of individuals likely to be somewhat aware of performance funding was department chairs, and directors of student support offices (e.g. academic advising). Least familiar were faculty and staff. One exception was the institutional researcher(s) of a university, since they are responsible for college-level data collection, reporting, and analysis. To illustrate, even in a state like Tennessee that has the longest running policy, dissertation studies on college cases suggest that awareness of performance funding policy is scarce at levels other than senior administration (Bogue & Johnson, 2010).

The uneven distribution of knowledge about performance funding among college stakeholders is a serious impediment for policy impacts. If college faculty, staff, and administration are not aware of state priorities or

funding consequences, performance funding does little good in swaying institutional change. In perhaps the most detailed recent study, campus awareness of Washington's community college performance funding policy was found to be low (Jenkins et al., 2012). Even during its 5<sup>th</sup> year of operation, there was limited awareness of the policy. The modest number of faculty and staff who were aware of performance funding in their state had served on committees about the policy, or taught basic skills and developmental education courses for which pass rates were performance measures. The few respondents who had heard of the policy did not know how their college performed compared to other colleges. Moreover, department-level constituencies did not see it as their responsibility, since measures are calculated at the institutional level (Jenkins & Shulock, 2013; Jenkins et al., 2012).

Institution-level data reporting is a complex policy issue in and of itself, beyond the scope of this paper, and one that has been tackled by experts in the field (Dougherty & Hong, 2006; Dougherty & Reddy, 2011). The absence of longitudinal data often prevents sufficient cohort tracking. That is, lack of specific links between funding and college actions limits interpretations of whether a college's latest efforts are succeeding, posing a severe problem of practice (Jenkins et al., 2012). In order for performance funding to "make waves" on campus, faculty, staff, and administrators need to know exactly how their units are being affected by the policy, how outcomes are measured, how data is collected, and more importantly, how they can help students achieve the outcomes most important to both states and institutions (i.e. graduation, retention, academic progress).

In recent years, a different issue has emerged: the uneven distribution of institutional capacity to address poor performance. This was especially true at smaller colleges with few or no institutional researchers. Even though colleges had the information needed to make changes that led to improved student outcomes, this information meant little unless the college had the skill and will to convert policy into meaningful organizational change. While there is limited research on the topic of differential institutional capacity, this issue is bound to emerge in future work on performance funding policies.

## Unintended Consequences

The connection between performance funding and institutional behavior leads to a particularly fascinating albeit disconcerting phenomenon, termed unintended impacts, unintended consequences, or policy “side effects” (Dougherty & Reddy, 2011, p. 4). Unintended consequences are policy impacts not anticipated, but occur to the detriment of the policy’s goals. Certainly performance funding has caught the attention of college presidents and vice presidents and has generated a cultural shift amongst these high-level administrators. Yet, state proponents of performance funding have had trouble predicting the unintended consequences that materialize at the campus level. Surely state policymakers do not intend for colleges to respond by weakening academic standards to bolster performance outcomes. While the overall goals of college completion and student achievement are complementary for states and institutions, whenever financial resources are tied to metrics in an environment of resource scarcity, organizational pressures could cause colleges to modify their performance in both adaptive and maladaptive ways, to achieve rewards and/or avoid sanctions.

For example, “creaming” is a particularly disturbing unintended consequence of performance funding. By increasing selectivity or focusing recruiting efforts on high-income students, colleges can improve its performance on outcomes, simply by only admitting students who will graduate anyway and thus bolster completion rates. This however, disproportionately affects those students with the most need for postsecondary education—low-income, first generation, working students, and students of color. To counteract a college’s temptation to “cream” students, performance programs can include a metric that rewards a college for enrolling lower-income, rural, or ethnically diverse students to the extent allowed by state law (Hillman et al., 2013).

Revisions of PF 2.0 in the last several years demonstrate that policymakers have taken heed of unintended impacts of earlier performance funding systems (NCSL, 2014). Through interviews of university administrators, campuses have on occasion responded to external demands for accountability by: admitting students whose previous academic records show that they are more likely to graduate (creaming), emphasizing academic programs that are rewarded by performance funding, and discontinuing programs that not rewarded, regardless of workforce need or student demand. While undesirable, organization

theorists would say these actions are simply the institution's way to manage and adapt to environmental demands. Campus actions may include limiting the visibility of undesirable behaviors, and shielding themselves against the state's demands by asserting a lack of information to respond, thereby shifting responsibility away from the institution (Dougherty, Natow, & Vega, 2012; Dougherty, Reddy, & Natow, 2012; Dougherty & Reddy, 2011, 2013). A common example is a college saying that it does not have the information needed to know how to improve student completion rates, that more resources are needed to create the type of change that state policymakers want, and by criticizing the nebulous connection between incentive funding and institutional behaviors in ways that blame the state.

In Florida's performance budgeting system for community colleges, a focus on cost (cost-per-credential) tends to favor institutions that do not serve students needing remedial education. Funding incentives can influence the elimination of such programs if they are costly to provide and are unrewarded by the performance policy, which has consequences for college access and equity (Mullin & Honeyman, 2008). Colleges become pressured to limit enrollments to students of higher academic promise, or to lower academic standards to ensure higher course completion rates. Even though empirical evidence of performance funding impacts has not covered roadblocks to access, scholars predict that these issues will surface as more states adopt performance funding and allocate higher percentages of appropriations to performance metrics.

For example, community colleges interviewed have occasionally admitted to deliberately changing degree requirements to make it easier for students to graduate, without a thorough evaluation of the academic merits of such curriculum changes (Dougherty & Hong, 2006). In Washington, the awarding of an associate's degree earned the same amount of funding as the awarding of a certificate. Since certificates were easier for students to earn, some community colleges began certificate programs without regard to workforce needs or academic necessity simply to increase the amount of credentials attributed to the college. The result was an influx of students certified in an occupation that had limited job opportunities in the local market. Washington community colleges eliminated requirements that lowered student chances of graduation, such as fees, and allowed fewer credit requirements for certain short occupational certificate programs (Jenkins et al., 2012). Whether these

changes affected student learning in positive or negative ways was not assessed.

In summary, unintended consequences of performance funding apply to all states and all types of colleges. Whenever simplified metrics are used to “quantify” an outcome, especially the value-laden and complex output of a university, the potential for unanticipated responses exists. Because funding and reputation are at stake, a university will strive to do what it can to showcase improved student outcomes while still attempting to maintain its academic integrity. Unintended consequences result when colleges are faced with the threat of sanctions, including reduced financial support, embarrassment for college leadership, infringement onto academic freedom, and the potential closing of programs and services. Colleges will do what is within their power to portray their own performance in the most positive light possible, sometimes at the cost of reducing the very “product” that states are seeking to improve.

## **Policy and Practice Recommendations**

Throughout the decades, there have been many avenues of research on performance funding. Given the wide variation in policy design and implementation, scholars have formed recommendations on how to best structure outcomes-based policies. Interestingly, today’s recommendations echo those from previous decades. Most importantly, performance metrics must be simple, easy to track, and not too numerous or burdensome. The amount of funding linked to outcomes must be substantial enough to capture the attention of colleges, but not so much to be seen as threatening a college’s livelihood if its performance does not measure up. The importance of collaboration between states and colleges is also emphasized—the development, design, adoption, implementation, and evaluation of a performance funding policy is truly a dynamic process that requires multiple experts and stakeholders.

## **Designing Metrics**

A fundamental recommendation for the success of PF 2.0 programs is for states to reward institutions for accomplishing intermediate outcomes (e.g. course completions, student credit hour milestones) in addition to long-term outcomes (e.g. degrees). Incorporating short-term metrics is becoming standard in newer performance funding models (Hillman et al.,

2013; McCready, 2013). All PF 2.0 programs consist of at least one progress indicator. From the early stages of performance funding in the 1990s, Burke (2002) has recommended simplicity. Simple, clear, and understandable metrics and formulas are crucial. Reducing ambiguity clarifies expectations to all those involved with performance funding (NCSL, 2014). Metrics already tracked by an institution, such as graduation rates and STEM degree attainment, reduce the data management burden placed on universities and make for a smoother transition to performance funding.

In order to ensure that institutions keep serving students who come from low-income backgrounds, are racial or ethnic minorities, and who are working students, performance-funding programs should include metrics that reward the education of traditionally underrepresented groups. Built-in incentives for credit completion, degree completion, or enrollment of underserved populations will help to avoid “creaming” and other manifestations of unintended consequences. Less is written on student learning assessment, but NCSL (2014) recommends designing student-learning outcomes to preserve academic quality. Lastly, aligning funding formulas with statewide workforce needs benefits students, institutions, and the local economy.

### **Institutional Buy-in**

It is not uncommon for performance-funding programs to be met with institutional resistance. Any form of external accountability, especially when substantial amounts of money are at stake, can cause campuses to react in unaccommodating and even hostile ways. Thus, it is important to gain widespread support from colleges prior to implementation. Key stakeholders during this process include state board members and legislators (e.g. boards of regents, members of the governing agency), institutional leaders (e.g. Presidents, Vice Presidents), businesses (especially if metrics have direct connections to local workforce needs), and major philanthropists or foundations that can support external evaluations of newly instituted performance policies (Miao, 2012). Broad support build upon some level of shared agreement about goals and priorities should increase the chances that a performance-funding regime will have staying power.

Within college campuses, there is also evidence that gathering support from faculty and staff can play a key role in the implementation process

(Belfield, 2012; Jenkins et al., 2012). A collaborative process to design performance-funding programs can help ease the transition into full-on adoption of the policy. This usually involves helping colleges find specific ways to improve performance and also building in performance rewards or sanctions that apply directly to faculty. Researchers caution that lack of involvement by faculty and staff in designing and implementing performance initiatives potentially exacerbates unintended consequences, such as data manipulation, or just plain purposeful resistance (Dougherty et al., 2011; Dougherty & Hong, 2006; Dougherty & Reddy, 2011).

Overall, collaboration between state policymakers and institutions provides opportunity for policymakers to understand and respond to campus concerns, which will enhance institutional support. In the past, PF 1.0 programs excluded stakeholders during key phases of the planning process, especially community college leadership. In order to improve chances of longevity and sustainability, policymakers and scholars now recommend that states engage institutions “in a meaningful and authentic way rather than as a token part of the planning process” (McCready, 2013, p. 11).

### **Mission Differentiation**

As discussed in the performance metrics section, accounting for different institutional missions is essential to the success of performance funding. For one, measures that are a poor fit with institutional missions simply do not reflect the fundamental goal of performance funding: to report and reward institutional effectiveness in order to better serve students and better utilize public taxpayer resources. Colleges have unique missions and a one-size-fits-all approach disadvantages some campuses. A community college situated in an urban center and located near a research university may have a primary transfer mission whereas another community college in the same system located in a more rural environment may well have a primary mission for adult basic education. Measuring either campus too heavily on the basis of “transfer to 4-year colleges” or “remedial education” could paint inappropriate pictures of success. Research universities are rewarded for development and external funds, yet this metric is clearly unfitting for community colleges (NCSL, 2014).

In short, funding formulas that take account of variation across institutional missions and student demographics more accurately reflect

the unique circumstances of each college. To illustrate, Ohio's community colleges are subject to a different funding formula than its universities. Pennsylvania and Tennessee each weight certain metrics differently according to institutional missions and other differences. While college retention and completion are goals of any performance-funding program, some campuses are better positioned to achieve high completion levels than others; a difference sometimes termed institutional capacity (discussed earlier, yet little research exists on this topic). One telling example in Tennessee is the state's flagship institution, University of Tennessee—Knoxville, which uses 6-year graduation rates as its main performance measure, while Middle Tennessee State University uses total bachelor's and associate's degrees, reflecting the two campuses' dissimilar missions (Sanford & Hunter, 2011).

### **Percentage of Funding**

An ongoing debate in the performance funding policy and scholarly communities is on the ideal percentage of funding to tie to outcomes, an idea that does not exist but is popular as a policy recommendation. A significant improvement from PF 1.0 programs is that, in PF 2.0, funding is embedded into the state formula as opposed to being provided as bonus funding on top of the base. Base budget allocations offer stronger incentives for colleges. One contributing factor to the instability of former performance funding programs was that, with bonus funding, state commitment to the underlying policy can more readily diminish in the face of budget cuts (Hillman et al., 2013). While performance-funding policy needs to be tailored for local context, the National Center for Higher Education Management advises policymakers from numerous states and recommends a minimum target of 10% of state appropriations be tied to performance metrics (NCHEMS, 2011). While 10% might be arbitrary without institutional or political context, the general idea is that putting enough money at stake is necessary to incentivize universities (NCSL, 2014). Future research could consider whether states with a higher percentage of performance funding result in greater overall improvement in student outcomes, compared to states with lower percentages of funding.

## **Phase-In**

Earlier versions of performance funding were often discontinued during periods of economic declines, or with a major shift in political leadership. Performance funding creates uncertainty for colleges during the annual budgeting process since performance funding is not guaranteed and must be earned. To address the difficulty of fiscal planning, states can incorporate a learning year, as Ohio and Washington have done (Miao, 2012). During the learning year, colleges receive reports on the measures that performance funding would have been based on had it been a year of actual implementation, thus providing information for them to anticipate the impact of the new policy (McCready, 2013).

Additionally, several states have gradually increased the percentage of funding in each subsequent year of implementation. States such as Indiana, Colorado, and Tennessee have all steadily increased the amount of funding tied to performance metrics while decreasing enrollment-based funding. A related feature is to use a “stop-loss” provision to prevent colleges from losing a drastic amount of funding during the first years of implementation (e.g. Ohio). If a college experiences a particularly bad year on a certain indicator, allocations calculated using a multi-year average can help to insulate institutions from year-to-year volatility.

## **Conclusion**

This literature review of state performance funding policy shows its enduring but unstable history, starting from its original inception three decades ago. In a climate of accountability and diminished public funding for higher education, many states have adopted performance-based funding. Scholars have investigated many topics, including: metrics, impacts of performance funding, campus awareness, campus responses, unintended consequences, and a slew of recommendations have come from all angles. In its earliest form, performance funding allocated state appropriations above base budgets and allowed public colleges to earn extra funding. As time progressed, policymakers have raised the stakes. More states now operate performance-funding 2.0, which embed incentive funding into the base, and more states have allocated a larger percentage of funding to institutional outcomes. The topic of performance funding has captured the attention of powerful foundations, research institutes, and policymakers at state and federal levels. The allure of performance

funding has made it popular, despite inconclusive evidence of its effectiveness. Institutions and states are working together to design the most effective and sustainable policies. Only time will tell whether performance-based funding will eventually become the standard method of public funding for higher education.

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