

SPECIAL ISSUE
Global Perspectives on High-Stakes Teacher Accountability Policies

education policy analysis
archives

A peer-reviewed, independent,
open access, multilingual journal



Arizona State University

Volume 25 Number 88

August 21, 2017

ISSN 1068-2341

**A Failed Marriage Between Standardization and
Incentivism: Divergent Perspectives on Performance-Based
Compensation in Shanghai**

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Citation: La Londe, P. G. (2017). A failed marriage between standardization and incentivism: Divergent perspectives on the aims of performance-based compensation in Shanghai, China. *Education Policy Analysis Archives*, 25(88). <http://dx.doi.org/10.14507/epaa.25.2891> This article is part of the special issue, *Global Perspectives on High-Stakes Teacher Accountability Policies*, guest edited by Jessica Holloway, Tore Bernt Sorensen, and Antoni Verger.

Abstract: The Chinese province of Shanghai has gained international recognition as a high performing education system with strong teaching and learning outcomes. One accountability mechanism in Shanghai's education reform strategy is statewide performance-based compensation (PBC), also known as performance- or merit pay. Providing a first time account of PBC in the Shanghai context, this study investigated variance in stated and perceived aims of this policy instrument. To explore this variance, the study drew on data from national, state, and school level policy documents, and data from interviews with 20 teachers and the principal in a high performing elementary school. The analysis revealed that PBC was intended to improve teaching quality. However, the teachers' perceived merit pay was meant to increase teacher enthusiasm, job

Journal website: <http://epaa.asu.edu/ojs/>
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Twitter: @epaa_aape

Manuscript received: 12/1/2017
Revisions received: 23/7/2017
Accepted: 23/7/2017

satisfaction, and participation in teacher and student development activities. Importantly, the teachers perceived these aims as tangential from instructional improvement goals. Based on these findings, I argue that this particular PBC policy, as a manifestation of the marriage of standardization and incentivism, is unable to fulfill the promises of this marriage – to link incentives with homogenous, uniform metrics associated with a generic and shared notion of teaching quality.

Keywords: Performance-based compensation; merit pay; Shanghai, teacher accountability

Una unión fracasada entre estandarización e incentivismo: Perspectivas divergentes sobre los objetivos de la compensación basada en el desempeño en Shanghai, China

Resumen: La provincia china de Shangai ha ganado reconocimiento internacional como un sistema educativo de alto rendimiento con fuertes resultados de enseñanza y aprendizaje. Un mecanismo de responsabilización en la estrategia de reforma de la educación en todo el estado de Shangai es la compensación basada en el desempeño (PBC), también conocido como rendimiento o pago por mérito. Proporcionar una primera cuenta de época del PBC Shanghai en el contexto, este estudio investigó Dicho y varianza en AIMS percibidos de este instrumento de política. Para explorar esta variación, el estudio se basó en datos de documentos de política nacional, estatal y escolar, y datos de entrevistas con 20 profesores y el director en una escuela primaria realizando alta. El análisis reveló que la PBC pretendía mejorar la calidad de la enseñanza. Sin embargo, percibido pago por mérito de los profesores fue significativa de aumentar el entusiasmo de profesores, satisfacción en el trabajo y alumno y profesor participación en actividades de desarrollo. Importante, los profesores percibieron esos objetivos como tangentes a los objetivos de mejora instruccional. En base a estos resultados, y argumenta que esta política PBC particular, como una manifestación del matrimonio de estandarización e incentivismo, es incapaz de cumplir las promesas de este matrimonio - para vincular incentivos con métricas homogéneas y uniformes asociadas a una noción genérica y compartida de la calidad docente.

Palabras clave: compensación basada en el rendimiento; pago de mérito; Shangai, rendición de cuentas de los profesores

Uma união fracassada entre padronização e incentivismo: Perspectivas divergentes sobre os objetivos da compensação baseada em desempenho em Xangai, China

Resumo: A província chinesa de Xangai ganhou reconhecimento internacional como um sistema educacional de alto desempenho com fortes resultados de ensino e aprendizagem. Um mecanismo de responsabilização na estratégia de reforma da educação em todo o estado de Xangai é a compensação baseada no desempenho (PBC), também conhecido como desempenho- ou pagamento por mérito. Proporcionar um primeiro conta época do PBC Shanghai no contexto, este estudo investigou Dito e variância em AIMS percebidos de este instrumento de política. Para explorar esta variação, o estudo baseou-se em dados de documentos de política nível nacional, estadual e escolares, e dados de entrevistas com 20 professores e o diretor em uma escola primária realizando alta. A análise revelou que a PBC pretendia melhorar a qualidade do ensino. No entanto, percebida pagamento por mérito dos professores foi significativa de aumentar o entusiasmo de professores, satisfação no trabalho e aluno e professor participação em atividades de desenvolvimento. Importante, os professores perceberam esses objetivos como tangentes aos objetivos de melhoria instrucional. Com base nestes resultados, e argumenta que esta política PBC particular, como uma manifestação do casamento de padronização e incentivism, é incapaz

de cumprir as promessas de este casamento - para vincular incentivos com métricas homogêneas e uniformes associadas a uma noção genérica e compartilhada dos qualidade docente.

Palavras-chave: compensação baseada em desempenho; pagamento de mérito; Xangai, prestação de contas dos professores

A Failed Marriage between Standardization and Incentivism: Divergent Perspectives on Performance-Based Compensation in Shanghai

The Chinese province of Shanghai has gained international recognition as a high performing education system with strong teaching and learning outcomes (Burningham, 2014; Morrison, 2014; OECD, 2010; Schleicher, 2016). In *Surpassing Shanghai* (Tucker, 2011), a book based on a study commissioned by the U.S. Department of Education, Shanghai is portrayed as a system that successfully uses accountability mechanisms to create a “professional, creative, mass education system” in service of a “high-skill high-wage knowledge based economy” (Sellar & Lingard, 2013a, 2013b, p. 717). One accountability mechanism in Shanghai’s education reform strategy is state-wide performance-based compensation (PBC), also known as performance- or merit pay. PBC refers to temporary or permanent financial awards or compensation granted to individuals or groups of teachers based upon the attainment of predetermined performance criteria. Performance criteria often used to estimate teaching effectiveness determine rewards tend to include student performance on standardized assessments, teacher participation in professional development activities, teacher attendance, and student grade point average (Springer, 2009).

PBC has scaled globally in accountability policies, particularly in leading world economies such as the U.S., England, and Wales (United States Department of Education, 2015). This form of enticements is persisting under the economic premise that rewards lead to optimal individual performance (Weiner, 1980). More specifically, advocates claim that financial bonuses motivate educators to improve instruction and teachers’ cooperation, reduce levels of attrition, thereby giving strong teachers incentives to stay in the workforce and encourage weak teachers to exit (Clees & Nabors, 1992; Hanushek & Lindseth, 2009; Lavy, 2007; OECD, 2009; The New Teacher Project, 2014). However, experimental research shows performance-pay has done little to improve teaching outcomes and instruction (Balch & Springer, 2015). Also, recent qualitative research suggests financial incentives incite job stress, stifle collegiality, and is difficult to implement because of resource limitations, capacity weaknesses, and educators’ perceptions of a lack of fairness (Rice, Malen, Jackson, & Hoyer, 2015). Despite this, merit pay is gaining traction globally and is sedimented into the accountability landscape in Shanghai, a region gaining status on the global education policy stage.

Providing a first time account of PBC in the Shanghai context, this study investigated variance in stated and perceived aims of this policy instrument. To explore this variance, this study drew on data from national, state, and school level policy documents, and data from interviews with 20 teachers and the principal in a high performing elementary school. The analysis revealed that PBC was intended to improve teaching quality. However, the teachers’ perceived merit pay was meant to increase teacher enthusiasm, job satisfaction, and participation in teacher and student development activities. Importantly, the teachers perceived these aims as tangential from instructional improvement goals. Based on these findings, I argue that PBC, as a manifestation of the marriage of standardization and incentivism, is unable to fulfill the promises of this marriage – to link incentives with homogenous, uniform metrics that are linked to a generic and shared notion of teaching quality.

Design of Performance Pay Policies

A central feature of PBC, incentives are inherent to all forms of compensation reform (e.g., market-based pay, knowledge and skills-based pay, career ladders, recruitment and retention awards, and performance-pay (Springer, 2009). Scholars suggest that the design of PBC policies are centered on distinctive program goals, eligibility criteria, and award determinants (Odden & Kelley, 1997; Podgursky & Springer, 2007a, 2007b; Rice, Matlach, Bowsher, Hoyer, & Hyde, 2015).

Program structures. PBC is typically structured as either absolute performance in fixed contracts or relative performance in tournaments. A performance-pay tournament awards a predetermined bonus to the top performing individuals. In contrast, a fixed contract awards bonuses to all individuals who meet a performance threshold. For example, in a tournament the top ten scoring eligible teachers receive 500 USD, while in a fixed contract all teachers who meet the performance threshold receive 500 USD.

Early experiments with tournaments were shown to create competition and disrupt collaborative ethos among teachers (OECD, 2009). Fixed contracts also come with advantages and disadvantages. Collective bargaining negotiators often advocate for the lowest thresholds as possible in order to maximize the possibility for high threshold pass rates (Milanowski & Kimball, 2007). For example, in England's first year of fixed bonuses, 97% of teachers met the performance threshold (Haynes, Wragg, Wragg, & Chamberlin, 2003a, 2003b). High success rates and cost uncertainty can cause taxpayers and the government significant and unforeseen financial burdens. Nevertheless, fixed contract bonuses tend to be perceived as more pragmatic and aligned with the collaborative ethos and norms of teachers.

Incentive Units. Incentives are typically organized around individual, group, or hybrid units. The "free-rider" problem (i.e., subpar performers benefitting equally from high performers' success) is the foremost challenge associated with group bonuses. Economists suggest individual incentives are the most likely to lead to improved labor market selection and composition of human capital (Lazear, 2003; Podgursky & Springer, 2007). Yet, individual teacher bonuses remain controversial because i) student performance is not easily attributable to an individual teacher; ii) individual rewards are antithetical to teamwork goals; and iii) the effects of learning are cumulative and build from year to year, and non-school factors greatly affect student learning. Hybrid models (i.e., combination of individual and group bonuses) are common in the US. For example, in the U.S. Teacher Advancement Program (TAP), student performance on annual state standardized tests determines bonuses for individual teachers and entire schools. A significant challenge of hybrid models is that data systems must aggregate and disaggregate data in order to link student performance to both individual and groups of teachers (OECD, 2009).

Pay allocation. Globally, bonus size and distribution of PBC vary greatly (OECD, 2009). Springer (2009) identified the remarkable trend that bonus sizes have tended to increase due to an interest among policy-makers in testing whether larger incentives lead to improved teacher performance. Overall, bonus sizes largely depend on the number of individuals expected to receive bonuses and whether policymakers strive to give smaller rewards to more teachers or give larger rewards to fewer teachers. Bonuses are typically distributed at the end of the school year, in between school years, or at the start of a new school year because student tests are usually administered late in the school year. Research suggests that with regular and timely bonus allocations, system gaming behaviors decrease and perceptions of bonuses improve (OECD, 2009; Vroom, 1964).

Performance measures. Performance measures are a contested aspect of PBC. Advocates for knowledge- and skill-based pay suggest bonuses for professional development, peer mentorship,

teacher leadership, and educational advancement motivate teachers to focus on self-improvement. Yet scholars also warn that measures associated with observable teacher characteristics (e.g., educational attainment, certification) explain little of the difference in student achievement (Berliner & Glass, 2014; Goldhaber, 2002).

On the other hand, student-based performance measures include student retention, attendance, and grade point average (OECD, 2009; Springer, 2009; Teacher Incentive Fund, 2015); but test-based accountability is the most widely used - and hotly debated - measure to rank and reward teachers for their effectiveness. Value-added models (VAMs), Student Growth Percentiles (SGPs), and student learning objectives (SLOs) are three popular forms of test-based accountability. VAMs and SGPs determine the portion of student performance on standardized assessments that is attributable to a teacher. VAMs often control for student history and student- and school-level variables in more complex ways than SGPs. To evaluate the performance of teachers of non-tested subjects and grades and to create opportunities for objective conversations between all teachers and evaluators, some states in the U.S. are using teacher-developed SLOs to measure student growth and determine the teacher value-added score. Still, SLOs and benchmark assessments are not widely recognized as “objective” determinants of teacher performance (for further discussion see Amrein-Beardsley, Polasky, & Holloway-Libell, 2016; Guarino, Reckase, & Wooldridge, 2015; Hallinger, Heck, & Murphy, 2014).

Scholars point out that test-based accountability is an inappropriate method to evaluate and award merit pay to teachers for several reasons (American Educational Research Association, 2015). In addition to the statistical modeling challenges associated with extracting growth and value-added scores for individual teachers, VAMs and SGPs only apply to teachers of tested grades and subjects (i.e., reading and math), while teachers of non-tested students often have a school-level VAM score attributed to them, which can partially inform personnel decisions, including merit pay. Longstanding research suggests student race, class, and parents’ educational attainment more closely determine student achievement than teaching (Rothstein, 2005). Moreover, recent research found in-school factors, including teaching, only explain 14% of student performance (Berliner & Glass, 2014). Other teachers, school leaders, itinerant staff, and coaches contribute to student overall school performance. Additionally, standardized and interim benchmark tests items are often biased against students of color, from low income-families, and with low English proficiency. Scholars further warn that proficiency models may provoke teachers to aim to move as many students as possible across proficiency thresholds (Berliner & Glass, 2014; Jennings, 2012; Orland, 2015). Despite these critiques, student performance remains a central measure of PBC.

The Impact and Results of PBC

To date, there are no English language, peer reviewed studies of PBC in Shanghai or neighboring regions. Studies of merit pay in other contexts have illuminated insights that offer important understandings on teacher perspectives of merit pay and challenges with implementation. In rare instances, incentives have yielded slight, positive student and teacher outcomes (Balch & Springer, 2015; Leigh, 2012; See Table 4 in Appendix for a review of experimental research). In their study of the New York City, group-based PBC, Goodman and Turner (2013) found small but significant increases in student achievement in schools, and concluded that barriers to policy effectiveness included linking merit pay with school-wide performance goals, the presence of a punitive accountability system, and teachers’ lack of understanding about the program. The Mathematica Policy Institute reported that poor organization likely led to the fact that only half of the U.S. federal 2010 Teacher Incentive Fund districts implemented all four required program components, and sustainability was a challenge in 65% of districts (Chiang et al., 2015).

Survey data repeatedly show that teachers have substantive concerns about test-based PBC policies, and teachers often report merit pay has negative impact on teacher ethos (Leigh, 2012). Teachers seem to favor group-based incentive plans, but we know little about what aspects of incentives are attractive and under what conditions incentives are well received. Overall, survey data suggest teachers respond unfavorably to PBC and suggest that programs that base bonuses exclusively, or mostly, upon student performance measures negatively affect collaboration, trust, respect, and capacity to learn (Goldhaber, 2002; Goldhaber, Dearmond, & Deburgomaster, 2011).

Case studies have shed light on teacher perceptions of PBC and culture and organizational variables relevant to PBC. Kelley and colleagues' (2009) comparative case studies of Maryland and Kentucky's state PBC mandates showed that Maryland schools were required to spend group bonuses entirely on school improvement; whereas Kentucky teachers had discretion over how to spend their money. Maryland PBC policy did not generate strong teacher or school improvement despite that principals reported a greater amount of flexibility and comparatively less stress and pressure; whereas Kentucky's program yielded teaching improvements, despite negative reactions from principals and teachers.

Studies of Prince George's County Public Schools (PGCPS) in Maryland, a district with 130,000 students and the 18th largest district in the US, have shed further light into how PBC unfolds in schools. PGCPS determined merit pay through three metrics – student growth models (50% of total score for teachers and 60% for principals), teacher skills/knowledge growth, and hard-to-staff/teach areas (Malen et al., 2015). Rice and colleagues (2012, 2015) found that as PGCPS leaders and teachers became increasingly overwhelmed with program demands, their support for merit pay waned, stress increased, and they gained concern with the legitimacy and fairness of teacher evaluation. Teachers expected maximum award amounts to be attainable, performance measures to be accurate and reliable, and eligibility restrictions justified, and merit pay allocation rules clear from the outset. The 2006-2010 Austin, Texas PBC program in was different from those of PGCPS in Maryland and Kentucky, in that teachers, and particularly those with National Board for Professional Teaching Standards certification, were instrumental in the policy design. 67% of teachers reported the program to be fair and supported student growth measures, and 89% of teachers deemed student growth on state standardized tests moderately or highly important (Lussier & Forgione, 2010).

England and Wales offer another important lens on implementation and perceptions of merit pay. Starting in 2002, England and Wales were the first two countries to tie the salaries of full-time teachers in state-run schools entirely to performance metrics, standardized performance appraisals, and growth comparisons, which are assessed by head teachers (Evans, 2011; Marsden, 2014; Radcliffe, 2013; Walker, 2013). Educational attainment and years of service are not factored into salary progression, and salary progression is not bound to fixed increases. Since 2002, the number of teachers with graduate degrees and with Qualified Teacher Status has increased, but higher proportions of teachers have exited the public school systems (Coughlan, 2014).

Research has found teachers saw the policy as an effort to link employment to performance (Mahony, Hextall, & Menter, 2002); they felt like “victims of bias and management bullying” (Haynes et al., 2003a, p. 43) and were concerned about fairness, power, and inconsistency with evaluations and communication. Also, both teachers and head teachers were concerned about capacity for strong implementation and sustainability given a lack of funding, training, and agreed upon criteria (Haynes et al., 2003b; Mahony et al., 2002). Community

stakeholders perceived the program as nearly impossible to fund and distrusted the policy formulation and implementation processes (Mahoney et al., 2002; Storey, 2000).

In this literature on PBC implementation and impact in the US, England, and Wales, themes of organization and capacity development are two pronounced issues (Kelley, Conley, & Kimball, 2000; Raham, 2000). Malen and colleagues (2015) discussed how organization and capacity development largely shape “partial and symbolic” implementation of merit pay programs. Also, self-interest and conceptions of fairness, legitimacy, and capacity for financial sustainability are key concerns for both evaluators and teachers. In particular, case studies’ accounts of how performance incentives work in complex school settings shed light on the strength of the bedrock assumption of performance incentives: bonuses lead to improved motivation, teacher performance, student performance, and school markets. The case study of Shanghai builds on these case studies, further enriching our understanding of how policy actors and teachers perceive PBC.

Theoretical Framework

PBC is situated at the crossroads of standardization and incentivism, two primary strategies featured in global education reform and in New Public Management (Sahlberg, 2011; Trujillo, 2014). Accordingly, I have adopted these two concepts for analyzing the variance between stated and perceived aims of PBC in the case of Shanghai.

Incentivism

The labor economics principle of agency suggests that monetary and explicit incentives, rather than “fuzzy”, social, extrinsic motivators (e.g., fear of termination, popularity, respect), motivate individuals to perform optimally (Kreps, 1997; Weiner, 1980). Also, some economists argue that rather than focusing on the “irrelevant and uneconomic” (Weiner, 1980) relationship between incentives and motivation, PBC policies should consider the level (i.e., the total cost of a package for an employer or the total value of a package to an employee), functional form (i.e., the performance incentives), and composition (i.e., the relative amounts of the discrete components of the package such as cash, retirement benefits, travel reimbursement) of PBC design (Baker et al., 1988; Earn, 1982). This view asserts that functional form is particularly important because it bears directly upon the level at which employees value packages (Baker et al., 1998). Moreover, some economists suggest that through a combination of decentralized managerial wage discretion and a competitive production environment (Xu, 2000), incentives should be used to promote innovation (Xiu & Gunderson, 2013).

In the private sector, incentives are leveraged through profit sharing, efficiency wages, and firm size-based pay to employees who demonstrate strong sales and leadership (Baker, Jenson, & Murphy, 1988; Luthans & Stajkovic, 1999). In the context of teaching, policy actors have introduced incentivist policies under the premise that teachers as ‘front-line workers’ (OECD, 2014) are the primary means through which to improve student learning outcomes. Vagi (2014, p. 99) explained, “by rewarding effective teachers and providing them with opportunities to earn salaries comparable to those in other fields, advocates argue that more highly qualified candidates will be drawn to the profession as less effective teachers are forced to leave”. When teachers exert their maximum efforts, school districts needs are fulfilled and “moral hazards” are reduced (Goldhaber, DeArmond, Player, & Choi, 2008). Because districts can differentiate effectiveness and offer attractive compensation, they can both retain effective teachers, and increase the average level of teacher effectiveness (Leigh, 2012).

Initially, pay equalizing strategies, such as the single salary schedule, were initiated to reduce inequities in pay between men and women and between elementary and secondary level teachers (see Protsik, 1995). Yet PBC advocates maintain that this practice reduces the overall performance, attractiveness, and effectiveness of the education labor force and creates high opportunity costs for uniquely skilled people to enter the teaching labor market (Goldhaber, DeArmond, & Deburgomaster, 2011; Podgursky & Springer, 2007b). Lazear (2003) further suggests that even if the effects of incentives are not strong (i.e., merit pay fails to improve teacher and/or student outcomes), the very selection of human capital – embodied in high-performing teachers - are likely to lead to improved schools.

Standardization

In the area of PBC, standardization tends to hold teachers accountable for teaching a common curriculum and for students achieving at uniformly high quantitative levels of proficiency. Proficiency benchmarks are often established for the purpose of aligning learning objectives, curriculum, and assessment under a common framework. The U.S. 2001 Common Core State Standards (CCSS) and Great Britain's 1988 Education Reform Act are primary examples of first-time statutory policies that created national frameworks for curriculum, and consequently, for standardized assessments (Meyer et al., 2014; Yarovaya, 2015). On a global scale, high profile international large-scale assessments, such as PISA, are used to standardize measures of progress across the world (Berliner, 2015; Meyer & Benavot, 2013). Standardization is attractive to policymakers because the combination of core curricula, lofty performance targets, frequent and onerous testing of students and teachers, and test-based accountability create the homogenous conditions deemed necessary to improve educational markets in efficient time frames and at low costs (Sahlberg, 2015). Such measures of standardization tend to privilege core academic subjects such as literacy/language arts, mathematics, and science, and favoring common and measurable pedagogical strategies that seek to ensure that teachers will “deliver” the standardized curriculum.

PBC as the Nexus of Standardization and Incentivism

Standardized teacher evaluation is directly related to this movement, with teachers being rewarded, and sometimes punished, on the basis of standardized metrics for preparation, development, and performance. Incentivist policies like PBC are thus viewed as efficient strategies to improve the teacher labor force, and consequently, create more competitive educational markets (Rivkin, Hanushek, & Kain, 2005). By standardizing, estimating, and rewarding teaching effectiveness, PBC is purported to alter the labor force, maximize the labor force's effort/performance, and thereby bolster educator quality, school quality, and education markets (Chubb & Moe, 1990; Lubienski, Scott, & DeBray, 2011; Walberg & Bast, 2003). To understand the potency of this idea in Shanghai, I viewed PBC as a policy situated at the junction of incentivism and standardization. In turn, I was able to explore in depth the source and consequences of the variance between stated and perceived aims of PBC in Shanghai.

Research Design

As noted above, the literature on PBC is limited in terms of context and scope. Scholarship has mostly focused on Western and developing nations that implemented short-term merit pay policies in school districts with poor educational outcomes. Methodologically speaking, econometric studies has largely focused on *impact over implementation* and generally ignore the contextual policy, sociocultural, and behavioral variables that shape the implementation and impact of PBC policies in

practice. Such ‘thin’ analyses do little to interrogate the fact that teacher accountability policies are expected to perform well regardless of place, context, or interpretation (Sahlberg, 2011).

In contrast, case studies are a useful way to expand our understanding of complex, interrelated phenomena such as incentivism and teaching quality (Yin, 2003). Case studies that look inside of schools and communities of teachers could help us understand *whether* and *why* a given PBC policy work as its advocates expect, *how* the policy operates, and the *process* through which the consequences of financial incentives unfold in school settings. As PBC gains traction, these foci will illuminate the efficacy of merit pay as a teacher accountability mechanism. Scholars who have documented the need for context-sensitivity note that the efficacy of accountability policies can only be understood through investigations of impact *and* implementation that attend to various policy actors’ perceptions of policies (Glewwe, 2014; Verger, 2014). Also, contexts in which high stakes accountability policies such as merit pay are enacted on a state or national level, for a significant period of time, offer a more comprehensive landscape to study policy performance.

Studying Incentives in Shanghai

In 1984, China designated Shanghai as one of several Special Economic Zones (SEZ) a site for economic and educational innovation. Thereafter, Shanghai went through additional economic changes, including becoming a free trade zone, a site for foreign investment, and an incubator for new technologies. With these economic changes came educational reforms, namely the 2001 policy, *First Class City, First Class Education* (hereafter, *First Class*). *First Class* was intended to support technological advancements, elevate the quality of teaching and learning, and support the country’s aims of world economic leadership (Henig, 2013, Tucker, 2011). *First Class* aligned broader goals of leading in the global knowledge economy through teaching reform initiatives (Lai & Lo, 2007; OECD, 2011; Tucker, 2011). The policy involved that new teachers are to be mentored by veteran teachers and participate in team-based professional development for at least 50 hours per year. Moreover, school leaders should have an average of 15 years of teaching experience (OECD, 2011, 2012b).

Taking direction from the national Chinese Central Ministry of Education, in 2009, Shanghai implemented a statewide performance pay program. The Central Ministry guided districts and schools to set individual policies which ensured teacher compensation be comprised of 70% base salary and 30% performance-based compensation. The new performance appraisal system applied to all school employees who began work by January 1, 2009. The Central Ministry further suggested PBC include three parts: school-based individual performance bonuses (20%), school-based team performance bonuses (5%), and a district bonus for individual teachers (5%).

The analysis presented in this paper was part of a larger study of how PBC was perceived and enacted in four high performing elementary schools in Shanghai. In this paper, I investigate how the stated and perceived aims of merit pay vary in Shanghai, and how these divergent views shaped the potency of the main assumption that undergirds merit pay – that financial incentives will increase a teacher’s motivation to improve her or his teaching (Springer, 2009; Weiner, 1980). This case study reports on school, city, and national documents on merit pay and data from interviews with 20 teachers and the principal in School M1, a high performing elementary school in Minhang District, a fast growing suburb of Shanghai. School M1 had 1,500 students. The school administered merit pay to all 80 teachers on a monthly basis and employed teachers with a range of one to 30 years of teaching experience and tenure. My methods included semi-structured interviews and document analysis. The participant breakdown, interview protocol, and key terms are located in Appendices A and B.

I employed a constructionist, ecological approach (Temple, 2002; Temple & Edwards, 2002; Temple & Young, 2004) to translate and interpret the Chinese Mandarin-based data. This involved

that interpreters were removed from the role of “shadowy figure” (Temple, 2002) and considered legitimate co-researchers in all phases of data collection and analysis. Also, the articulation of the background of the interpreters leads to greater credibility and trustworthiness of their “hybrid” roles as “analysts and cultural brokers” (Larkin, Dierckx de Casterlé, & Schotsmans, 2007; Matteson & Lincoln, 2009). My co-researchers were a male professor with over 20 years of experience in educational research and three female Master’s students at East China Normal University (ECNU).

Data Collection

Interviews. One co-researcher and I conducted semi-structured, one-to-one interviews (Bryman, 2004; Flick, 1998) with 20 teachers and the principal that lasted between 20 to 60 minutes each. We conducted and audio-recorded all of the interviews in Chinese Mandarin. Based on Patton’s (1990) framework, the interview guide included informal, open-ended, and pre-formulated questions. Previous studies and theory on incentivism and teacher development informed this protocol (See interview protocol, Table 1, Table 2 in Appendix). The sample was diverse in terms of grade levels and subjects taught (Chinese, English, Mathematics, Science, Art, Physical Education, Music), years of teaching experience, years in the school, age, and amount of merit pay received in the 2015-16 school year. Since approximately 90% of elementary school teachers in Shanghai are female, the sample included relatively few male teachers (See Table 3 in Appendix).

Documents. In addition to interview data, the empirical material included PBC policy documents from the central Chinese Ministry of Education (Guidance About Implementing Performance Wage of Compulsory Education Schools Abstract, 2009), Shanghai Education Commission (Shanghai Municipal Education Commission’ opinions on completing compulsory education school teacher performance assessment, 2009), Minhang District (Scheme of the Implementation of Performance Wages in Compulsory Education Schools in Minhang District, 2008), and School M1’s merit pay policy from 2015. Consistent with China’s education governance, the national and state policy documents contained general guidelines and a timetable of implementation. School M1’s policy, like other schools in Shanghai, spanned several pages and included the policy aims, rules, and tables of amounts of merit pay that corresponded with different performance measures.

Data Analysis Procedures

Translation. Departing from a positivist view that word equivalence requires forward-backward translation, I used a social constructionist approach to translation, which included that throughout the translation and interpretation processes the co-researchers provided insider knowledge on the syntax and semantics of the language (Berman & Tyyskä, 2010; Edwards 1998; Temple, 2002). To ensure consistency in the interpretation of specialized terms, the translators used the list of key terms in Chinese Mandarin and in English (See Table 1 in Appendix). All data were transcribed in Chinese Mandarin, translated to English, and then analyzed to address the research questions.

Coding and memoing. I coded the interview data inductively as well as deductively to fully capture both policy aims and participants’ interpretations of PBC. The initial list of codes derived from research on incentives, and the entire dataset was first coded inductively using a constant-comparative analytic approach (Glaser & Strauss, 1967) to modify, delete, replace, or expand upon these codes based upon sentiments evoked by the participants. Subsequently, the entire dataset was coded a second time using codes from conceptualizations of agency, incentivism, standardization, teaching culture, education reform, as well as codes from case studies on merit pay. The latter codes included terms such as fairness, effort, instruction, improvement, and trust.

Check for disconfirming evidence. The coding of a random sample of one page of text in five of the 20 teacher interviews (Miles & Huberman, 1994) showed that there was 90% agreement in assigning a given code. We also performed syntax analysis on this random sample to identify the descriptive words that teachers most often used when they described their perspectives on how merit pay shapes motivation and professional identity. We used this list of high frequency words to further refine the memos of findings, build depth to the findings, and improve the reliability and validity of the data (Leech & Onwuegbuzie, 2007).

Strengths and Limitations of Research Design

In generating understandings of how PBC, incentives and standardization shape teachers, students, and schools, this case study offers a documentation of experience in line with the strengths associated with case studies noted above. In particular, the study offers a much needed qualitative exploration of questions that are understudied in a site that is prominent in debates on education governance globally.

The case study focused on a single school in Shanghai, and it should be emphasized that the findings from the study are neither generalizable to wider groups of teachers or schools nor do they capture all views within the site itself (Stake, 1998). I collected interview and document data in a relatively short time period due to the extensive time required for transcription and translation. Ethnographic methods including observations and debriefs likely would have lent to a more thorough representation of the context and culture of the school and participants.

Relatedly, the participant sample included a large proportion of teachers in leadership positions who identified themselves as high-performing. Because of their positions, these participants were likely to hold extreme or radical perceptions of the aims of merit pay. These teachers tended to have many years of teaching experience and/or and held a great deal of responsibility in their teacher leadership positions. Thus, the analysis indicates that they were unsatisfied with the lack or robust financial incentives and with the disproportionate effort they put forth as compared to weak or novice teachers (see Table 3 in Appendix).

Findings

Overall, city and district policymakers, as well as School M1's principal, suggested PBC was squarely intended to incentivize teaching quality. On the other hand, the teachers from M1 viewed financial bonuses as a mechanism to incentivize teachers to improve their efforts and to differentiate strong from weak teachers. Moreover, teachers noted that the incentives associated with PBC did not necessarily lead to improved teaching quality.

The Perspectives of Policymakers: Assessing, Rewarding and Differentiating Teacher Performance

Policymakers suggested that performance assessment, and the monetary rewards linked to that assessment, would motivate teachers to work harder and develop their professional skills. Performance assessment and PBC were thus directly aimed at improving teachers and schools:

The aim of the new performance wages allocation system is to guarantee that teachers get good treatment and to improve the quality of teachers. It also has significant effect on promoting balanced development of compulsory education in Shanghai. (Guidance About Implementing Performance Wage of Compulsory Education Schools Abstract, 2009, p. 1)

In particular, they intended to offer performance pay to *banzhuren*, teacher leaders, and those teachers who had “great achievement.”

City policymakers recommended performance appraisal be differentiated by teacher title; moral education, teaching, research, and professional development; and reflect teacher ability and achievements. Policymakers also encouraged principals to offer greater incentives to *banzhuren*. In addition, the city called upon school districts to: 1) learn about performance-based evaluation and compensation options from publications posted on the website of the national Central Government Education Ministry; 2) create a scientific and detailed plan on performance assessment; 3) design performance assessment procedures; 4) employ multiple methods of performance assessment; 5) undertake performance assessments in accordance with the chosen procedure; and 6) use performance assessment results appropriately (Shanghai Municipal Education Commission’ opinions on completing compulsory education school teacher performance assessment, 2009). A combination of qualitative and quantitative assessments, with regular input from students and parents, was meant to “produce more forms to record the results of performance and build [the] personal performance development file for teachers.” The results of these performance assessments were to be used for performance pay, teacher promotion, and teacher training.

Performance assessment was intended to be guided by a self-designed teacher “work plan,” a peer assessment, and an evaluation from the school-based assessment group, which included the Principal, Chinese Communist Party Secretary, school teacher union chairperson, teachers’ congress representative, and a handful of teacher leaders:

At the beginning of each school year, every teacher should make a plan of their work base on the demands of their position, and give it to school performance assessment group. At the end of school year, all teachers should write a brief summary of their work in this year and do a self-assessment. Also he (or she) will get a peer-assessment and the assessment made by the school management. The school performance assessment group will synthesize all the assessments and make the final assessment of the teacher. The result of performance assessment has four levels: excellent, pass, barely pass and fail. Only 10-15% of teachers can reach the excellent level. The result of the performance assessment should be made available to teachers. If the teacher has questions about the result, he (or she) can appeal the result to school performance assessment group and education authorities. (Shanghai Municipal Education Commission’ opinions on completing compulsory education school teacher performance assessment, 2009, p. 3)

Each district was to supervise performance assessment and required school teacher union representatives to approve the school performance assessment policy under this framework.

As mentioned previously, the new performance appraisal applied to all school employees who began work by January 1, 2009. In Minhang District, the district awarded funding to schools for compulsory education school staff salaries in three areas: i) Job subsidies referred to the five% of monthly salary that teachers received according to job title and years of experience; ii) Workload subsidies, or base salary, comprised 70% of monthly salaries and was based upon teachers’ working hours, which was determined by the number of lessons a teacher taught per week; and iii) Performance rewards comprised 25% of monthly salaries and was intended to “reward school staff’s great achievement in different areas,...for overtime,...excellent (student) assessments, *banzhuren* (i.e., head teacher), and teaching and research” (Scheme of the Implementation of Performance Wages in Compulsory Education Schools in Minhang District, 2008).

School M1 policy and the Perspective of the Principal: Incentivize Participation and Sort by Teaching Quality

In line with Shanghai's practice of allowing schools to set policy at the building level, M1 had autonomy to create their own PBC policy. The M1 management team – which included the principal, vice principal, Communist Party Secretary, and Chairperson of the Labor Union – authored the PBC policy, which did not stray from the Central Ministry's "70/30" guideline and PBC metrics guidelines. It went through several iterations, and staff were given multiple opportunities to offer suggestions for revisions. Like all other school policy, PBC had to earn approval from 70% of faculty.

Performance-based teacher evaluation in School M1 encompassed three categories of assessment: i) professional and ethical conduct (e.g., attendance, dress code); ii) teaching; and iii) student affairs. PBC applied to the two latter categories. The M1 management team developed the merit pay policy in order to reward teachers for their participation in student learning and teaching activities. Teacher participation in student development activities was deemed particularly important because the focus on "rich campus life" was a new, critical aspect of the school's mission. According to the M1 Executive Principal, parents in the school community were particularly concerned about their children's happiness. Teacher participation in student affairs therefore underscored the importance of a positive school culture:

Generally, we feel that the teachers in our school have a passionate and positive attitude towards work. The overall work environment is truly excellent. Many teachers from other schools would say, how do you manage to keep doing this, because we cannot go along with it. We think things should be like this. For example, when we organize a student activity such as "four seasons on campus", every one of us will fully participate. Many teachers will provide ideas regarding the carry-out of the activity. This is our culture. We feel that it should be like this. (School M1 Executive Principal, personal communication)

M1 offered merit pay to individual and groups of teachers for their participation in student and teacher competitions (see Key Terms in Table 1 in Appendix); teacher training sessions, lectures and seminars; and in school-based research. A financial incentive and performance-based evaluation points were assigned to each activity, and in the case of competitions, to ranking levels (e.g., first place, second place). An incentive and points ceiling for each activity category was instituted in order to encourage multifaceted teacher development:

Each category has a maximum score, and the overall maximum score is 20. You can do more, but it will not go over 20. It took us a long time to design this system, because we want the teachers to have balanced development rather than one-sided development, and the maximum score limit encourages them to seek development in multiple aspects. (School M1 Executive Principal, personal communication)

Merit pay was also offered to teachers who taught students in subjects (Chinese, English, and Math) in grades (3-5) that were subject to assessment. It was unclear whether teachers of non-tested subjects (music, art, science, physical education) and grades (first and second) received student performance scores.

The Executive Principal explained that performance appraisal and pay helped sort teachers by performance and provoke more effort from underperforming teachers:

Yes, it needs to be disciplined and democratic, but my review result should never be "everybody is equally good". We need to provide incentives through such evaluation,

making teachers who performed well feel recognized, while also making the teachers who performed poorly realize that the school is aware of that. If they see the gap, they will make more efforts next semester.

From her perspective, school M1's goal was clear, focused on identifying and rewarding superior performance through standardized and performance-based measures:

Our principle is those who perform better get more pay. We cannot let the teachers feel that the more they do, the more mistakes they will make, or that they will get the same amount of money whether they work extra or not. They get more when they perform better.

Teacher Perspectives on the Aims of Financial Bonuses

Most of the M1 teachers reported that they were unclear on the intended aims of performance pay but suspected bonuses were meant to positively shape teacher enthusiasm, professional satisfaction, development, and effort. A fourth-grade English teacher elaborated that bonuses helped instill “professional happiness” in all teachers and encouraged teachers to work harder. In terms of specific areas of work, she suggested merit pay was intended to encourage teachers to participate in research projects. A male third-grade IT teacher echoed this sentiment. He added that before 2009, “all teachers got the same pay no matter what they did. It was easy to become lazy.”

Unclear rewards and unpersuasive metrics. Basic salary was distributed into teacher bank accounts on the last weekday of each month, individual and team rewards were distributed at the end of fall and spring semesters, and the district award was distributed once per year. Basic salary was based upon number of working hours, calculated on the basis of taught lessons per month. The participants in this study taught between 11 and 17 lessons per week, and one lesson lasted 90 minutes. Moreover, basic salary was based upon professional title. Teachers had a coefficient of 1.0, teacher leaders of subjects and grade-levels had a coefficient of 1.2, and *banzhuoren* had a coefficient of 1.3. The basic salary remained quite consistent, as teachers normally taught the same number of lessons per week.

The criteria for the district bonus were not transparent or made available to teachers. Teachers reported that they did not know how districts chose teachers of excellence, or whom the district chose in a given year. The individual and team-based PBC allocation and structure were far more detailed. Individual teachers earned merit pay for three different types of activities, and each activity was associated with different awards. The first type of activities involved professional development (seminars, lesson study, peer observation, and curriculum development).

Second, teachers also earned bonuses for participating in action research projects. In these projects, teams of teachers investigated pedagogical approaches through book study, engagement with university-based researchers, and “lesson study”. Lesson study involves that the teachers observe a peer teaching a lesson and provides detailed feedback.

The third category of PBC activities involved that teachers of Chinese, English, and Mathematics in grades three through five might earn bonuses on the basis of student performance in standardized assessments. In addition, these teachers and those of non-tested subjects and non-tested grades had opportunities to earn bonus pay for student competitions on district, province, and state level. Different bonus amounts were associated with first-, second-, and third-place rankings in these competitions. In particular, Physical Education and Art teachers in upper primary grades were heavily engaged in student competitions, though teachers of all subjects reported they participated in student competitions. Teachers also participated in their own teaching competitions.

In these events, teachers gave mock teaching demonstrations in order to compete against their district and province counterparts for demonstration of high quality instruction and student engagement.

Authority on awarding PBC. When asked about who was involved in merit pay determinations and the processes through which merit pay decision were made, most teachers spoke about performance appraisal. Teacher performance-based appraisal was carried out by a team of ten people, which included the school management, leaders in the teaching research group, and various teacher leaders across campus. Each teacher's subject- and grade-level teacher leader also weighed in on the evaluation. All teachers received performance-based rankings of A, B, C, or D. Typically, teachers who received an A grade also earned the most merit pay. The M1 Principal explained that at least 80% of teachers received A's, 15% received B's, and no more than 5% received C's. The M1 Principal had final say in all evaluation determinations and bonus allocations.

Disguising salary supplements as incentives. Teachers elaborated that bonuses were directly tied to evidence of additional work time, yet perspectives differed on the significance of the bonuses. A second-grade *banzhuren* teacher likened merit pay to the work of a farmer: "It feels like a farmer's harvest. However much you cultivate is how much you gain." She emphasized, "merit pay encourages everyone to do their best to accomplish more work." She reported her base salary as about \$643 per month and her base annual salary as between \$8,500 to \$10,000. Several teachers added that bonuses associated with participation in activities provided marginal salary supplements. A first-grade Math teacher explained:

There is no 'high salary' and 'low salary.' At most, they will give you a little extra money to reward you. Now, we all (highly active and less active) get more salary and merit pay. We get more money than before, but there is little difference among teachers.

The Physical Education Department Head for third-grade offered a different perspective. She reported large gaps in performance rewards: "Some people get a lot of merit pay, but some people only get a little." She explained that bonuses ensured "talented and active teachers are valued" because previously those who "did more things" were not compensated for their extra effort. This teacher reported her salary as between \$18,000 to \$20,000 per year. When probed for salary figures, every teacher said they were unsure of the amount of monthly merit pay they received because this figure was not designated clearly in their pay stubs.

Whether or not bonuses were significant, the majority of participants suggested that less active, "lazy," or "low performing" teachers had the most to gain from financial bonuses. A fifth-grade Science teacher commented, "For good teachers, merit pay makes no difference. But for the teachers who are a little poor, there might be some impact." A first- and second-grade Art teacher explained that active, "good" teachers already engaged in activities to support students and teaching, and merit pay was "just a token of affirmation." Since 15 out of 20 of the teacher participants were teacher leaders (e.g., subject head, grade-level head, *banzhuren*), they represented the highest performing teachers in M1. All of these teacher leaders echoed the sentiment that merit pay was likely intended to inspire more enthusiasm and participation in activities from the lower performing teachers.

Overall, teachers were ambivalent toward the idea of merit pay as an incentive. One Chinese teacher described merit pay as "a salary supplement," and a Music teacher described merit pay as "the same as our salary before but just called something else." A veteran teacher further suggested, "basically they reorganized the salary into something we can be sure about and something we cannot

be sure about.” Teachers suggested merit pay was not much of an incentive and not particularly attractive in size.

Teachers reported their merit pay as between \$285 to \$1,800 per semester, and their base salary as between \$430 to \$930 dollars per month. The median merit pay reported was \$430, and the median base salary reported was \$715. Of the eight teachers who had six or less years of experience, six teachers reported their merit pay as approximately one-third of their total monthly salary. All teachers reported their salaries did not fluctuate by more than \$140 per month, or about 10% of their total salary. All of the 12 participants who worked as teachers in Shanghai before 2009 reported that their salaries increased by no more than 3% since the onset of PBC.

One Physical Education teacher reported that she received between \$1,715 and \$1,860 at the end of each semester in the school year 2015-16, which was one of the highest reported merit payments. She echoed other participants’ sentiments that there was little difference among teachers and “no such thing as high salary or low salary,” but everyone had “more money than before.” Several teachers noted they earned the most merit pay from leading student activities and helping their students win competitions. Other teachers explained that the additional salary provided by merit pay neither functioned as an incentive nor as an adequate reimbursement for additional effort and leadership. A Mathematics teacher explained:

For me there is not much difference. You do your job and the school assesses it. The fundamental work is teaching classes, grading homework, and instructing the students. I did this before and I do this now. The other activities have limited scores. No matter how much you accomplish, the highest score you can get is 20. Even if you and me get different scores, the money we get is not that different. Just a few dozen or hundred yuan. Like me, I am the leader of the teaching and research group, I will just get a few hundred yuan more than the teachers in my group. So we don’t care much about it. We will still do our job that we have to do as a teacher.

Discussion: A Failed Marriage of Standardization and Incentivism

In the view of state, district, and school policymakers, the PBC categories of student activities, research, and professional development served as proxies and stimuli for teaching quality. In other words, the hope was that by rewarding teachers’ greater efforts, teaching quality would improve. The city and district required schools to develop performance pay policies that included teacher self-, peer-, and committee-based performance assessment of teacher performance. Merit pay was to be allocated selectively and awarded to the top tier of teachers and determined based upon teacher title; ability; achievements; and teacher progress in moral education, research, and professional development. School M1’s vision for merit pay and procedures were developed under these aspirations.

The M1 teachers in this study, thus, did not subscribe to policymakers’ neat, clear connection between non-classroom activities, incentives, and teaching quality. Nearly all teacher participants reported that they did not see a connection between participation in student and teaching activities and teacher quality, and approximately half of the participants reported that there was no relationship between merit pay and teaching quality. Those teachers who did not see a link between merit pay and teaching quality perceived that merit pay did not positively affect their own and their colleagues’ enthusiasm and professional satisfaction, was unlikely to provoke poorly performing or “lazy” teachers to engage in more activities, and, at best, offered a deserved salary boost to “good” and highly engaged teachers. This group of teachers was quite clear that teachers’ increased school, or non-classroom, engagement did not necessarily lead to improved teaching quality. Overall, the M1 teacher participants reported they were unsure of the exact aims of merit

pay. They perceived bonuses were intended to strengthen teacher enthusiasm, improve job satisfaction, and incentivize teacher participation activities that supported teacher and student development. In their words, at best, bonuses incentivized increased effort and work time, and this increased effort differentiated high from low performing teachers. In the eyes of these teachers, bonuses thus functioned as salary supplements rather than incentives to (re)contour one's quality of teaching.

As discussed earlier, the cognitive frames of standardization and incentivism, which have propelled PBC into the global education policy sphere, presume a neat, direct link between financial incentives and teacher performance. The analysis shows that these cognitive frames also undergird Shanghai educational policymakers' and leaders' approach to PBC for teachers. However, as a distinctive marriage of incentivism and standardization, the PBC policy in Shanghai is deeply challenged by the fact that policymakers were not able to clearly define the aims of this marriage and communicate it to those meant to be incentivized, that is, the teachers. More specifically, they offer a vague, misguided articulation of high quality teaching. This practice is not uncommon. In education policy, notions of quality are generic and responsive to the needs of neoliberal globalization (Ball, 2012). In *Surpassing Shanghai*, Tucker (2011) asserted high quality teachers hold "a high level of general intelligence, a solid mastery of the subjects to be taught, and a demonstrated aptitude for engaging students and helping them understand what is being taught" (p. 178). More recently, OECD Director Andreas Schleicher (2016) extolled both the importance of teaching quality, the quality of Shanghai's teachers, and the value of teaching for innovation:

...And nowhere does the quality of a school system exceed the quality of its teachers. The East Asian school systems all pay great attention to how they select and train their staff. And when deciding where to invest, they prioritize the quality of teachers over the size of classes. They provide intelligent pathways for teachers to grow in their careers. High-performing countries have also moved on from bureaucratic control and accountability to professional forms of work organization. They encourage their teachers to make innovations in pedagogy, to improve their own performance and that of their colleagues, and to pursue professional development that leads to stronger education practice. The goal of the past was standardization and compliance; but today's top-performing countries value inventiveness. In the past, policy focused on providing education; today's top school systems focus on outcomes, shifting from looking upwards in the bureaucracy to looking outwards to the next teacher, the next school, to create networks of innovation. You can see that nowhere better than in Finland or Shanghai.

From a relational perspective on ideas and institutional change (Verger, 2014), the nebulous 'innovation and intelligence'-centered character of 'quality' translates well into the normative ideology of neoliberal globalization. This notion of quality underscores neoliberalism's effort to produce "docile, productive...and enterprising teachers" and to commodify the profession of teaching (Ball, 2012, p. 29). In neoliberal globalization, quality needs to remain nimble to the unforeseen and ever-changing demands of educational markets. 'Quality' retains a vague yet convincing character in policy due to its "common-sense" appeal, as well as appeal to teachers to elevate themselves in the name of individualistic, economic competition (see La Londe et al., 2015). Yet as we see in the implementation of PBC in School M1, many teachers remain unconvinced about the potential of standardization and incentivist principles to propel teaching quality forward. Several teachers are crystal clear that the behaviors that link rewards to teaching quality are ill defined. Their perspectives illuminate the fact that *standardizing and commodifying* teachers' practice does not propel (the improvement of) teaching quality. Instead, quality is elevated by *improving the*

learning that happens inside of classrooms and *strengthening the culture* between and among teachers and students. As such, Schleicher's (2016) juxtaposition of standardization and innovation is misleading.

The question of 'what is quality' remains highly contested in education policy and in a range of teaching and teacher preparation literature. However, the empirical record makes clear that issues of power, fairness, and inconsistency are readily at play when policymakers invoke incentivism and standardization in teacher policy. Scholars have found that in the US and in England and Wales, PBC implementation has been plagued by organization and capacity development, and that teachers' trust in the policy and system leaders' fidelity to the policy wane over time. Teacher improvement literature consistently asserts that teacher buy-in, enthusiasm, trust, and self-efficacy are central to their pursuit of teaching improvement (Darling-Hammond, 2013). Without these conditions, manifestations of incentivism and standardization, such as the PBC policy in Shanghai, are likely to neither positively impact student achievement and teaching performance nor engage teachers in the messy, self-reflective work required in learning and teaching improvements. Without these conditions and without an articulate, sound vision of teaching quality endorsed and shared by those practicing it, the weak impact of the policy observed in School M1 is not surprising.

Conclusion

The claim with which standardization and incentivism have penetrated high-stakes teacher accountability globally is fairly straightforward and compelling. Inherent in the theory of action behind PBC is the idea that bonuses motivate educators to behave in desirable ways, incentivize strong teachers to join and stay in the workforce, and encourage weak teachers to exit (Hanushek & Lindseth, 2009; Weiner, 1980). The idea that an incentive, determined by standardized and measurable targets and outcomes, renovates teaching, learning, schools, and markets is a policy proposal that is well received by policy actors, such as those in Shanghai. A high performing system with an increasing base of admirers, policymakers in Shanghai have found great promise in the power of incentives to improve teaching quality as a means to become and remain truly "first class." Accordingly, policymakers have required school districts and leaders to create comprehensive performance appraisal and pay plans that award teachers more for their efforts - and identify those who do not improve and thus should be encouraged to exit the market. The perspectives of teachers in School M1 effectively question the PBC underpinnings of incentivism and standardization. In doing so, they prompt us to ask: What is the efficacy of incentivist policies, such as performance-based compensation, when policymakers conflate effort with quality? What exact behaviors should policy incentivize in order to boost teaching quality? If bonuses neither dramatically elevate the quality of low performing teachers nor force low performing teachers to exit the workforce, what becomes of the incentivism-standardization marriage as a distinct policy paradigm? These questions highlight that research on high-stakes teacher accountability policies like PBC should critically assess the particular conditions under which incentive-based teacher accountability policies may positively shape learning and teaching.

Acknowledgement

Thank you to my colleagues at East China Normal University for their invaluable support for this research - Dr Li Jiacheng, Lu Keyi, Yang Yang, and Zheng Xue. I also thank Drs. Christopher Lubienski and Tore Sørensen for their critical feedback on this manuscript.

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Appendix

Interview Protocol English and Chinese Mandarin

Purposes of interview/访谈的目的

The purpose of the interview is to better understand how teachers, principals, and other administrators make sense of performance incentives. Specifically:

1. How do participants understand the aims of performance incentives? (Q1, Q2)
2. What are participants' experiences with performance incentives? (Q2, Q3)
3. In what ways do performance incentives contribute to teaching/leadership effectiveness for this teacher/administrator? (Q4)
4. What are the participants' experiences with relational trust and teamwork among their colleagues? (Q5)
5. In what ways do performance incentives shape trust and teamwork? (Q6)

访谈的目的是为了更好地了解教师、校长、和其他管理者如何理解绩效奖励（绩效工资）。具体如下：

- 1、参与者（教师、校长、其他管理者）如何理解绩效奖励的目的?(Q1、 Q2)
- 2、参与者（教师、校长、其他管理者）对绩效奖励有怎样的体会?(Q2、 Q3)
- 3、绩效奖励是通过什么样的方式使教师和其他管理者提高教学领导效能？（Q4）
- 4、关于同事之间的信任关系、团队工作，参与者有怎样的体验？（Q5）
- 5、绩效奖励（绩效工资）在以怎样的方式形成同事之间的信任和团队工作？（Q6）

Introductions, informed consent, permission to tape, Background/介绍、知情同意、录音许可

A. [Ice-breaker, could also use some other comfortable question to get started]. Before I started my doctorate work, I also worked in schools. I always enjoy chatting with educators. It is my pleasure to be here in Shanghai and learn about you. Could you share with me how you decided to become an educator?

A. (“破冰船”，也可以使用其他一些舒适的问题开始)。在我读博士之前,我在学校工作过，我总是喜欢和教育工作者聊天。我很高兴能够在上海认识您。您能够和我分享一下您为何愿意成为一名教育工作者呢？

B. I would like to learn more about your experiences in education. Can you tell me more about your experiences? How long have you taught? Which ages? Which schools? How long have you been a school leader? Which ages? Which schools? Where did you receive your training?

B、我想了解更多关于您的教育经历。您能告诉我更多关于您的经历吗?您任教多长时间

了？从多少岁开始？您所在的学校是？您成为这个学校的领导者有多长时间？从几岁开始？您所在的学校是？在此之前您在哪里接受培养或培训过？

Aims/purposes of performance incentives

Now I would like to talk about performance incentives. Performance incentives are financial bonuses given to teachers and school leaders whose students perform well. This could be a bonus for an individual teacher, a group of teachers, or all the teachers and leaders in an entire school. Said another way, these bonuses are incentives given to teachers for improved or superior student performance. I am interested in learning about your perspectives on and experiences with performance incentives. So let's begin, ok?

1. How would you describe the purpose of performance incentives?
 - a. How did you learn about performance incentives? Did the Ministry of Education or your principal explain incentives to you?
 - b. When did you first learn about performance incentives?
 - c. Please describe the performance incentive policy in your school as you understand it.
 - d. What do you understand as the process for receiving a bonus?
 - e. What other policies reward teachers and leaders for good student performance?

2. What is your overall view of performance incentives?
 - a. What do you think are some benefits of awarding incentives to teachers and school leaders for student performance?
 - b. How would you describe the challenges associated with awarding incentives to teachers and school leaders for student performance?

Brief member check on questions 1 & 2

绩效奖励的目的

现在，我想谈论绩效奖励（绩效工资）。绩效奖励（绩效工资）就是给予学生表现出色的教师和学校领导一定经济上的奖励。这种奖励可以是给予教师个体、教师群体、或者整个学校的所有老师和领导。换句话说，这些奖金是奖励给那些学生表现突出或者学生有所进步的教师们的。因此，我非常想了解您对于绩效奖励（绩效工资）有哪些个人的想法和体验。我们现在开始访谈，可以吗？

- 1、您认为绩效奖励有怎样的目的？
 - a. 您之前怎样理解绩效奖励？教育部门（教育部）或者你们的校长向你们解释过绩效奖励（绩效工资）这一措施吗？
 - b. 您第一次知道（或者了解）绩效奖励（绩效工资）是在什么时候？
 - c. 您是否可以描述一下就您所理解的，学校目前实施的绩效奖励（绩效工资）政策

- d. 您所理解到的获取奖金的过程是什么样的？
 - e. 对于学生表现好的教师和领导，还有没有其他的奖励政策（或者措施）？
- 2、您对绩效奖励（绩效工资）的总体看法是什么？
- a. 您认为给学生表现好的教师和领导授予奖励，会带来哪些好处？
 - b. 您认为对于学生表现好的教师和领导予以奖励的同时，会带来哪些挑战？
- 再快速检查一下问题 1 和 2。

Experiences with performance incentives

- 3. What are your personal experiences with performance incentives?
 - a. Please describe the incentives you have received.
 - b. How much was the bonus?
 - c. When did you receive the bonus?
 - d. How does this bonus shape your overall salary?
 - e. What do you understand to be the reason you received this bonus? If student performance, what specific performance warranted this bonus?
 - f. Who made this bonus allocation decision?
 - g. In your opinion, how is your experience with bonuses similar to or different from your colleagues' experiences with bonuses? Please explain.
- 4. What are your perceptions of how incentives contribute to teaching and leadership effectiveness?
 - a. How do incentives shape your teaching? Approach to teaching? Commitment to teaching? Motivation to learn about teaching?
 - b. How would you evaluate the value or contribution of incentives to your overall teaching effectiveness?
 - c. What else would help you be the best teacher you can be?

Brief member check on questions 3 & 4

对绩效奖励的体验

- 3、对于绩效奖励您有什么个人的体验？
 - a. 请您谈谈您得到过什么样的绩效奖励。
 - b. 奖金多少？
 - c. 您什么时候得到这笔奖金？
 - d. 这笔奖励如何改变您的整个工资？
 - e. 您理解您得到这笔奖金的缘由是什么（您知道您是因为什么得到这笔奖金的吗）？如果是因为学生，您认为学生表现如何才能让您得到奖金？

f. 谁来决定奖金的分配？

g. 在您看来，当获得奖金时，您的体验和同事的体验有何异同？请详细阐述下。

4、你如何理解绩效奖励有助于提高教学与领导的有效性？

a. 绩效奖励是如何影响（或者塑造）您的教学？如教学的方式方法？对教学的认同感？学会教学的愿望？

b. 对于您整体的教学效能，您如何评价绩效奖励的价值与贡献？

c. 还有什么能够帮助您成为一名好老师？

快速检查问题 3 和 4。

How performance incentives shape trust and teamwork

In the last part of this interview I want to talk about how incentives shape the trust between you and your colleagues and how incentives shape your teamwork. A lot of research tells us about what incentives are and the goals of incentives. But we don't know very much about how incentives shape how teachers collaborate together and approach each other? So let's begin, ok?

5. Relational Trust and Teamwork

a. How would you describe your relationships with your fellow teachers? Principal? Other school leaders?

b. In what ways does trust matter for in your work?

c. Can you give an example of 1-2 colleagues whom you trust a great deal?

d. In what ways do you work with your colleagues?

e. In your view, how does this teamwork contribute to your teaching effectiveness?

6. Role of performance incentives in relational trust and teamwork

a. In your view, how do financial bonuses shape your relationships with your colleagues? With your principal? Can you give an example of this?

b. How do bonuses for student performance shape the work you and your colleagues do together?

c. Think about a time when you received a bonus. How did your colleagues learn about your bonus? What made you decide to take this approach? Or if the Ministry or your principal shared this information, in what ways did your colleagues react?

d. Think about a time when you learned one of your colleagues received a bonus. Can you describe how you learned about this? Can you describe your reactions?

e. What other issues and concerns do you have related to performance incentives and your work or your work with your colleagues?

Brief member check on questions 5 & 6

绩效奖励如何塑造（或者影响）信任与团队合作？

在访谈的最后一部分，我想了解绩效奖励（绩效工资）如何影响（或者塑造）您和同事之

间的信任关系，如何影响您的团队工作。很多研究是阐述绩效工资的内涵和绩效工资的目标。但是，关于绩效工资如何推动教师间的合作和密切教师间的相互关系，我们知之甚少。我们现在开始访谈，可以吗？

5、关系信任和团队合作

- a. 您觉得您和各位老师的关系如何？和校长的关系如何？和其他学校领导的关系如何？
- b. 信任是以什么方式影响您的工作的？
- c. 说说您非常信任的 1-2 同事。
- d. 您以什么方式和您的同事一起工作？
- e. 在您看来，团队合作怎样有助于您的教学效能的提高？

6、在关系信任和团队合作中，绩效奖励的作用

- a. 在您看来，经济上的奖励怎样影响你和同事之间的关系，和校长之间的关系？请举一例
- b. 因学生的表现而获得的奖金如何影响你和同事之间的团队合作？
- c. 当你得到奖金时，你的同事是如何获知这一信息的？如果是您告知同事的，是什么促使您告知同事的，是什么促使您做出这一决定的？或者如果教育部或者校长分享（或者公布）这一信息时，你的同事反应如何？（你的同事以什么样的方式反应？）
- d. 想想当您知道您的一个同事得到奖金时，您是如何获知的？您能描述您当时的反应吗？
- e. 关于绩效奖励以及你和同事之间的团队合作，您还有什么其他的问题吗？

快速检查问题 5 & 6

Table 1
Key Terms Translation

English Term	English Definition*	Mandarin Pin Yin	Mandarin Characters
salary	overall composite of compensation a teacher received in a fixed salary distribution period	gong zi	工资
base pay	the total fixed salary that a teacher receives in a fixed salary distribution period	ji chu xing gongzi	基础性工资
merit pay	the total variable salary that a teacher receives in a fixed salary distribution period	ji xiao gong zi	绩效工资
merit pay bonus	the variable salary determined by the school administration that a teacher will receive in a fixed salary distribution period	jiang li xing ji xiao gongzi	奖励性绩效工资
district bonus	the variable salary determined by the district leadership that a teacher is eligible to receive in at the end of the first and second semester	qu jiang li	区奖励
city bonus	the variable salary determined by the city leadership that a teacher is eligible to receive one time at the end of the school year	shi jiang li	市奖励
motivation	desire, willingness, or reasons to do something	dong ji	动机
fair	what is just, appropriate, legitimate, or within the rules and standards	gong ping	公平
love	deep affection, interest, or pleasure	ai xin	爱心
enthusiasm	eager enjoyment or excitement	re qing	热情
passion	intense desire or enthusiasm	ji qing	激情
morality	principles held by a person, group or a society, concerning the distinction between right and wrong or good and bad behavior	dao de	道德
conscientiousness, conscientious	the act of doing what is right or to do one's work well or thoroughly	liang xin	良心
responsibility	a duty to fulfill the obligations and assignments prescribed to a teacher	zeren	责任
teaching quality	a teacher's skills and aptitude	jiao xue zhi liang	教学质量
team work	two or more teachers working together	tuan dui he zuo	团队合作
relationship	the interactions, relations, and communications between two or more people	guan xi	关系

Table 1 cont'd.

Key Terms Translation

English Term	English Definition*	Mandarin Pin Yin	Mandarin Characters
working hours	the number of class periods a teacher teaches in one week	gong zuo shi chang	工作时长
number of classes	the number of cohorts of students a teacher is responsible for teaching in one academic year	ke shi liang	课时量
competition	events that occur throughout the school year wherein students and teachers from schools in neighboring districts or provinces compete against one another in mathematics, science, Chinese, English, art, music, and physical education	bi sai jing sai	比赛 / 竞赛
teacher competition	events that occur throughout the school year wherein teachers from schools in neighboring districts or provinces compete against one another to showcase pedagogy and instruction in their subject area expertise	jiaoxuejingsaishi fan ke gong kai ke	教学竞赛 / 示范课 / 公开课
student competition	events that occur throughout the school year wherein students from schools in neighboring districts or provinces compete against one another in mathematics, science, Chinese, English, art, music, and physical education	ti yu bi sai ke ji jing sai wenti lei bi sai	体育比赛 / 科技竞赛 / 文体类比赛
veteran teacher	a teacher with five or more years of teaching experience	lao jiao shi	老教师
novice teacher	a teacher with four or less years of teaching experience	xin jiao shi	新教师
purpose	the aims of a particular policy, program, or act	mu di	目的
Head Teacher	the teacher in charge of general matters of a class (section) of students, who usually also teaches one subject to the students of that class	ban zhu ren	班主任
Pioneer battalion counselor	the counselor for a school's Young Pioneers Organization	da dui fu dao yuan	大队辅导员
Young Pioneer / Red Scarf Organization	a mass youth organization for children aged six to fourteen under the Communist Party of China; usually every elementary student becomes a member sooner or later	shao xian dui hong ling jin	少先队 / 红领巾

Note. * These terms were adapted from their broader meanings and applied to the context of teachers and teaching.

Table 2.
Recruitment Questionnaire and Information Sheet

English	Chinese Mandarin
<p>My name is Priya La Londe. I am a doctoral candidate at the University of Illinois at Urbana-Champaign, a large research university in the United States of America. I am conducting research on how financial bonuses and other incentives shape school culture in high performing schools in Shanghai, China. This study is important because education policy around the world is moving toward awarding bonuses or merit pay to teachers and administrators whose students perform well on standardized assessments. I have two goals for this research. First, I want to describe the scope and aims of bonuses/merit pay and how they are used in schools. Second, I want to analyze how how bonuses/merit pay shapes school culture – specifically in terms of trust and collaboration among teachers. I will <u>not</u> collect any identifiable data on students or teachers. I am <u>not</u> here to judge or evaluate your school or you work. I simply want to better understand your experiences with merit pay and your thoughts about how these bonuses shape your work.</p>	<p>我叫 Priya La Londe，是一名来自伊利诺伊大学厄巴纳——香槟分校的博士研究生。伊利诺伊大学是美国一流研究型大学。目前我正在研究财政补贴和其他激励措施如何塑造校园文化，研究范围是中国上海的优质学校。本研究的重要性在于，目前世界各地的教育系统都在致力于推行以学生表现为评价标准的奖金制度。本研究主要有以下两个目的：首先，我希望了解贵校设立奖金的目的，奖金的内部结构以及奖金制度的运作情况。其次，我想要分析在这个过程中奖金制度如何塑造校园文化——特别是如何影响教师之间的信任关系与合作关系。我是一名研究者，并非想要通过此研究来判断或者评价您的学校以及您的工作，过程中我也不会收集任何教师或者学生的私人信息。我只是希望能够了解您的经历、您对奖金的看法以及奖金如何影响您的工作。</p>
<p>Your Name, Your Mobile Phone Number, Your Email ID</p>	<p>您的名字, 您的电话号码您的, 箱, 微信</p>
<p>1) Have you ever received merit pay? If yes, when? How much merit pay?</p>	<p>(1)您曾经获得过奖金吗？若有，是什么时候获得？金额是多少？</p>
<p>2) In 2014 or 2015, did any teachers in your school received merit pay? If yes, approximately how many teachers? If yes, approximately how much merit pay did each teacher receive?</p>	<p>(2)在 2014 年和 2015 年期间，贵校有教师获得奖金吗？若有，大概有几个人获得？每人大约多少金额？</p>
<p>3) Do you consider your school a high ranking or top performing school in Shanghai? If yes, how do you know?</p>	<p>(3)在您看来，贵校在上海算是排名靠前或者说是优质学校吗？如果是，您是怎么知道的？</p>
<p>4) Would you be willing to participate in an interview with the Research Assistants and I about your experiences with merit pay? If yes, please suggest the most convenient date and time for you.</p>	<p>(4)您是否有兴趣参加访谈，向我和我的研究助手分享您关于奖金制度的体验和经历。如果您愿意，可以告诉我们您最方便的时间。</p>

Table 3
Participant Inventory

Participant	title	grade level(s)	subject	lessons	leader	gender	years experience	years at M1	hometown
1	administrator		n/a	0		female	25	4	Shanghai
2	teacher	3	Chinese	13	bzr	female	23	8	Shanghai
3	teacher	3	English	14	rd	female	3	3	Shanghai
4	teacher	1, 2	science		grs	female	2	2.5	Shanghai
5	teacher	3	physical education	11	grs	female	12	4	Shanghai
6	teacher	4	Chinese	12	bzr	female	32	10	Shanghai
7	teacher	5	English	10	ss	female	12	8	Shanghai
8	teacher	3	information technology	11		male	4	4	Shanghai
9	teacher	2	science	14	ad	female	10	10	Shanghai
10	teacher	3	math	13	grs	female	12	8	Jiangsu
11	teacher	2	Chinese	13	bzr; grs	female	6	4	Heilongjiang
12	teacher	1, 2	Music	16	ss	female	16	3	Jiang xi
13	teacher administrator	1, 2	Art	17	ss	female	22	10	Shanghai
14	teacher	3	English	13	grl	female	2	2	Shanghai
15	teacher	4	math	15	bzr	female	1	1	Shanghai
16	teacher	1	Chinese	16	ss	female	15	15	Shanghai
17	teacher	5	art	12		female	8	6	Shanghai
18	teacher	4	music	11		female	7	5	Shanghai
19	teacher	5	Chinese	13		female	6	6	Shanghai
20	teacher	1	math	14	bzr	female	3	3	Shanghai
21	teacher	2	art	12		female	4	4	Shanghai

Table 4

Experimental Evidence on Performance-Based Compensation

PBC Program	Incentive Level	Citation	Method	Program Timeline	Findings
New York City, New York, USA	Schoolwide	Goodman and Turner, 2011	RCT	2007-2010	There was no effect on student achievement among students in the treatment group. Teacher absenteeism dropped slightly among those in the treatment group who received the largest incentives.
New York City, New York, USA	Schoolwide	Fryer, 2011	RCT	2007-2010	There was a negative but insignificant effect on student achievement, attendance, and graduation among students in the treatment group. There was a negative but insignificant effect on achievement among students in the treatment group in larger schools. There was a negative but insignificant effect on teacher behaviors among teachers in the treatment group.
New York City, New York, USA	Schoolwide	Marsh et al., 2011	RCT	2007-2010	There was a negative but insignificant effect on student achievement, attendance, and graduation among students in the treatment group. There was a negative but insignificant effect on achievement among students in the treatment group in larger schools. There was a negative but insignificant effect on teacher behaviors among teachers in the treatment group.
Nashville, Tennessee, USA	Individual math teachers	Springer et al., 2010	RCT	2006-2009	Students in the treatment group did not significantly outperform students in the control group. Teachers in the treatment group were no more likely to report that incentives discouraged teachers from working together.
Andhra Pradesh, India	Individual and Schoolwide	Duflo, Hanna, and Ryan 2012	RCT	2005-2010	There was a positive effect on teacher attendance and student achievement among teachers and students in the treatment group.
Andhra Pradesh, India	Individual and Schoolwide	Muralidaran and Sundararaman, 2011	RCT	2005-2010	Students in the treatment group had higher scores in non-incentive subjects – science and social studies. Students in the treatment group whose teachers received schoolwide incentives did not significantly improve in math but improved in language.
Kenya	Schoolwide	Glewwe et al., 2003	RCT	1998-1999	Students in the treatment group improved performance, but this was not sustained the year after the program ended. Attendance improved among teachers in the treatment group slightly.

Table 4
Experimental Evidence on Performance-Based Compensation

PBC Program	Incentive Level	Citation	Method	Program Timeline	Findings
Israel	Schoolwide	Lavy, 2002	Regression discontinuity	1996-1997	Students in the treatment group showed reduced rates in dropout and increases in the number of credits taken.
Israel	Individual	Lavy, 2009	Regression discontinuity	2000-2001	There was a slight positive effect on student achievement in math and English among students in the treatment group. Teachers in treatment groups were more likely to work extra time with low performing students, use small group instruction, and differentiated instruction.
Little Rock, Arkansas, USA	Individual	Winters et al., 2007	Difference-in-difference	2003-2006	Students slightly improved their math performance.
England, U.K.	Individual	Atkinson et al., 2009	Difference-in-difference	1999-2002	Students whose teachers had more experience showed higher test scores.
Michigan, USA	Individual	Eberts et al., 2002	Difference-in-difference	1996-1999	Student improvement in course completion was the direct result of PBC. Student decline in attendance was not the direct result of PBC.
North Carolina, USA	Schoolwide	Vigdor, 2008	Regression discontinuity	1996-2007	Students whose teachers did not receive a bonus improved slightly.
Dallas, Texas, USA	Schoolwide	Ladd, 1999	Difference-in-difference	1991-1995	Students improved in dropout, attendance, and slightly in math and reading. Principal turnover rates increased.
USA	Individual	Figlio and Kenny, 2007	OLS regression	1988 NELS and 1993 SAS	There was no effect on student achievement among students in schools with group- or school-based bonuses. There was a slightly significant slightly positive effect on student achievement among students in schools with individual bonuses. The largest positive effects on student achievement were in schools with individual bonuses and with the most students from low-income families.
28 OECD nations	Schoolwide and individual	Woessman (2011)	OLS regression	2003	Students whose teachers received merit pay performed slightly better.

Note. Adapted from “The Economics and Politics of Teacher Merit Pay,” by A. Leigh, 2012, *CESifo Economic Studies*, 59, p. 1-33.

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SPECIAL ISSUE
Global Perspectives on High-Stakes Teacher Accountability Policies

education policy analysis archives

Volume 25 Number 88

August 21, 2017

ISSN 1068-2341



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