

**A PATCHWORK OF IDENTITIES: EMERGENCE OF CHARTER SCHOOLS AS A  
NEW ORGANIZATIONAL FORM**

**AUTHORS:**

Harsh K. Jha  
Paul Merage School of Business  
University of California, Irvine, USA

Christine M. Beckman  
Robert H. Smith School of Business  
University of Maryland, College Park, USA

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### **Abstract**

We examine the emergence of an organizational form, charter schools, in Oakland, California. We link field-level logics to organizational founding identities using topic modeling. We find corporate and community founding actors create distinct and consistent identities, whereas more peripheral founders indulge in more unique identity construction. We see the settlement of the form into a stable ecosystem with multiple identity codes rather than driving toward a single organizational identity. The variety of identities that emerge do not always map onto field-level logics. This has implications for the conditions under which organizational innovation and experimentation within a new form may develop.

**Key Words:** Institutional logics; Frames; Identity; Emergence; Organizational form; Research paper.

## INTRODUCTION

Historically, public school education in the US has been predominantly state controlled. Recently, emphasis on competitive market mechanisms to deliver education and increased private sector involvement has gained traction in public school education (Quinn, Tompkin-Stange & Meyerson, 2014; Schorr, 2002). The advent of charter schools is an outcome of two distinct but related movements. First, a bottom-up community based movement led by parents and community organizations, especially those in impoverished neighborhoods with failing state schools, was directed at local school districts. Second, a more structured effort by market reform advocacy bodies and think tanks to influence policy making at state and federal levels worked to bring market based reforms in primary and secondary education. Together, they represented “an odd marriage of conservative business types and impoverished inner-city parents” (Schorr, 2002: 15). These movements, the former targeting local mobilization at the school district level, and the latter targeting advocacy at state and federal level policy making, culminated in the introduction of charter schools in the early 1990s as an attempt to bridge traditional public education and local and market-based approaches. This new organizational form - the charter school – was established through this advocacy, with a diverse set of supporters and no clear organizational template.

As publicly-funded and privately-managed schools, charter schools have a clear mandate and outcome-based focus, but no clear agreement on the best methods toward achieving those goals. Charters schools thus represent a useful case to examine the organizations (schools) that emerge within this new form, when the struggles for initial legitimacy have been resolved through the establishment of the form by legislative action. Scholars have often looked at the simultaneous emergence of a new form and new organizational identities as organizations

struggle for legitimacy and the ability to claim membership in a form, but there are also important forms created through legislative action. Unlike the ultimate failure of small business industry corporations (SBICs), that were similarly created by “vague enabling legislation” and allowed organizational models be determined in practice (Rao and Kenney, 1998: 359), the charter school experiment has (to date) resulted in a durable patchwork of multiple organizational identities within the form. Two organizational identities, those primarily associated with corporate or community based founders, are consistently present over time. These identities are most aligned with the interests of the legislative movement that established the charter school form. We also find distinct organizational identities introduced predominantly by founding actors unrelated to the initial movement. Thus the charter school form appears to be a tool useful for a variety of founding actors and has resulted in an increasing variety of organizational identities. We explore the process by which this development happened and theorize about the potential reasons for this settlement of a new organizational form.

In addition, we utilize new empirical methods to trace these organizational identities. In doing so, we contribute to the growing body of work examining vocabularies to understand the linkages between levels within a field (Lowenstein, Ocasio & Jones, 2012). We use a novel approach of identifying field-level documents that represent “ideal type” societal institutional logics to capture the prevalence of these logics in the identities of new organizations. Using topic modeling, we further explore how organizations create locally meaningful identities, and the extent to which these local identities mirror or extend beyond these societal logics. These methods allow us to trace the connection between the field and individual organizations, the meaning associated with particular combinations of words, and the distinct identities across organizations that emerge.

## Background

In this paper we draw on the intuitions of two distinct perspectives that address new organizational forms within organization studies: population ecology (largely identity-based codes) and institutional (encompassing institutional logics and institutional entrepreneurship). Recent work on form emergence has taken an identity-oriented approach, that is, how new organizational forms represent distinct identities (e.g., King, Clemens & Fry 2011; Rao, Monin & Durand, 2003). This issue is important because it allows us to examine the diversity within the legally defined category – charter schools – and not assume one organizational form subsumes just one dominant organizational identity. Building on this approach, we connect the language and meanings used in founding new organizations (which we will call identities or frames) with the larger field in which a new organizational form emerges. Understanding how a new organizational form relates to and draws from the field level institutional environment (e.g., institutional logics) may explain the resonance, survival and particular manifestation of a new form. The particular founding actor also plays an active role in the shaping of organizational identity.

Population ecology scholars typically focus on the set of identity codes held by audiences specifying the features that an organization is expected to possess (Polos, Hannan & Carroll, 2002). Initially an organizational form was considered to have a single distinct identity, but more recent work allows that multiple identities may co-exist within a single organizational form (Hsu & Hannan, 2005). For instance, in their study of the American brewing industry Carroll and Swaminathan (2000) examined the re-emergence of small local craft breweries. A specialist form of craft beer focused on traditional small-scale, handcrafted methods of beer production, and strategically deployed certain identity codes (small, local, quality conscious, traditional methods

and ingredients, customer and community focus) to criticize the values of mass produced generalist beer. In sum, identity includes default expectations held by both internal and external audiences (Hsu & Hannan, 2005). Accordingly, we identify key identities which emerge over time within the charter school form.

To understand the charter school form, we begin at the societal level with the institutional logics literature. This research suggests that actors draw from the cultural material made available by field level institutional logics (see Thornton, Ocasio & Lounsbury, 2012). The institutional logics approach originated in the societal logics framework, which posits that each of the dominant institutional orders of western society - market, corporation, state, professions, family and religion - have a central logic that guides its organizing principles and provides social actors with vocabularies of motive and a sense of self or identity (Freidland & Alford, 1991; Thornton, 2004). These institutional logics are socially shared, historical patterns of cultural symbols and material practices, including assumptions, values, and beliefs, by which individuals and organizations provide meaning to their daily activity, organize time and space, and reproduce their lives and experiences (Thornton & Ocasio, 1999). The central argument suggests the attention of organizations is focused on issues and solutions consistent with prevailing logics and thus logics are embedded within or circumscribe actors' agency. This conceptualization of institutional logics is distinct from the older institutional tradition (see Meyer & Rowan, 1977; DiMaggio & Powell, 1983), and it incorporates increased potential for actors' agency, though still partially circumscribed (see Thornton, Ocasio & Lounsbury, 2012 for details). Hence, we build on the institutional logics literature to examine how particular charter school founders draw from dominant institutional logics in the field of school education to actively create new identities as the charter school form emerges.

In addition, the emergence of a new organizational form is fundamentally associated with political and cultural agency of focal actors. The process of form emergence may be an outcome of collective political action on the part of a few relevant actors, who skillfully manipulate existing power and meaning structures to ensure successful emergence of the new form (see Battilana, Leca & Boxenbaum 2009; Maguire, Hardy & Lawrence 2004). For instance, Khaire and Wadhvani (2010) suggest that the emergence of modern Indian art as a distinct form was preceded by skillful manipulation of historical meanings and cooperation amongst multiple actors. They suggest that shared meanings are established through collective action on the part of several powerful actors – historians, auction houses, critics and museums -- and they document the actions that establish this new identity, such as auction houses changing their catalogues to include the new aesthetic interpretation of modern Indian art. An agent driven explanation of emergence draws attention to the importance of actors engaging with field level meaning structures and selectively manipulating them to create new meaning structures.

We seek to provide a fuller account of a recursive relationship between actors' agency and logics. While it is clear that institutional logics are sources of field level meaning structures, it is also clear that actors shape and manipulate organizational meaning. Logics are envisioned as a partly decomposable model of culture in which fragments or categorical elements are available and differentially accessible to individuals and organizations in novel social situations and specific local settings (Thornton, Ocasio & Lounsbury, 2012). Such a conception of institutional logics suggests that the ability of actors to navigate institutional complexity depends on their access to specific logics and deploying them to their advantage (see Thornton, Ocasio & Lounsbury, 2012; McPherson & Sauder, 2013; Pache & Santos, 2013). For instance, in a micro-level ethnography in a drug court, McPherson & Sauder (2013) document that concrete elements

of different logics are used strategically by actors, including specific words and practices. However, these instantiations predominantly represent access to discrete categorical elements within logics, not meaningful repackaging of elements of multiple logics. Going beyond the notion of selective coupling of intact elements prescribed by different logics (Pache & Santos, 2013: 972), i.e., no alteration in the meaning residing in these elements, we examine how founding actors actively integrate elements of different logics to create new meanings. Our intuition draws from the fundamental issue of polysemy within vocabulary analysis, i.e., meaning emerges out of the contextuality and relationality of words (distinct combinations of words) and is not necessarily a property of words themselves (DiMaggio, Nag & Blei, 2013).

Drawing these multiple strands of research together, we examine how founding actors utilize multiple institutional logics to create unique organizational identities embodied within a new organizational form. Language serves as an important medium through which beliefs become established and reified (Berger and Luckman, 1967; Swidler, 1986), and the language used by organizational members and external evaluators can be used to measure the identity of organizational forms (e.g. see Rao et. al., 2003; Khaire & Wadhvani 2010; King et. al., 2011). We thus connect the field-level discourse with the language utilized by founding actors in the establishment of new organizations. Accordingly, we examine founding documents, i.e., the charter school applications submitted by founding actors, in order to assess the identity codes embedded in them.<sup>1</sup> We draw from institutional logics in the education field to understand the broader meanings of the identity codes embedded and combined in charter applications. As

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<sup>1</sup> Identity in this context is a much broader concept than self-identity of an organization and its members, that is, who we are (Whetten, 2006). It includes the expectations of the external audience, that is, both the sensemaking part of a new organizational form and the active sensegiving (Gioia & Chittipeddi, 1991) or projecting specific identities for gaining legitimacy (King et. al., 2011; Hsu & Hannan, 2005).

access to field level cultural material may depend on founding actors' backgrounds, we also examine and classify the founding actors who submitted charter applications.

### **Repackaging institutional logics as organizational frames**

Our starting premise is that actors may actively access and manipulate field level meaning structures to develop new identities. Despite work on how institutional logics shift over time (Haveman & Rao, 1997; Thornton, 2002), and acknowledgement that this is a cognitive process (e.g., see Thornton and Ocasio, 1999; Dunn & Jones, 2010), we know little about how institutional logics are instantiated in new organizations by founding actors. We draw attention to the ability of founding actors to draw elements from multiple logics and repackage them into distinct, coherent and locally meaningful frames. The constructs of frames has considerable currency in various social sciences, especially sociology and media studies (Benford & Snow, 2000). Frames are typically conceptualized as both sensemaking and sensegiving devices. From a sensemaking perspective, frames “help to render events and occurrences meaningful and thereby functions to organize experience and guide action” (Benford & Snow, 2000: 614). Sensegiving refers to the action oriented sets of beliefs, meanings and identities implicit in frames that are meant to “mobilize potential adherents and constituents, to garner bystander support and to demobilize the opposition” (Snow & Benford, 1988: 198).

The social movement literature conceptualizes frames as products of a “bottom-up” process of meaning construction, that is, how actors, mostly through language and symbolic gestures, frame courses of actions, identities and interests in a manner to mobilize others and gain resources and legitimacy. From this perspective, actors constantly attempt to make sure that their frames have wider societal resonance, by making them consistent with dominant societal discourses or “master-frames” (Benford & Snow, 2000; McCammon, Muse, Newman & Terrel,

2007). For instance, McCammon et. al. (2007) found that supporters of women's jury movement used frames based on competence and "similarity" (between women and men), which were consistent with distinct dominant societal discourses regarding gender roles. The jury activists simultaneously also used the "women's view" frame, arguing that women bring a unique perspective and excluding them risks losing their unique abilities, which resonated with the "difference" master-frame (men and women as distinct and unique).

Organizational frames present one of the few constructs that coherently connect macro cognitive schemas, i.e., institutional logics in our case, to local contexts of discursive interaction (Scott, 2003), i.e., in our case to the construction of organizational identities. In fact, identity construction is an inherent feature of framing processes (Benford & Snow, 2000) and frames "proffer, buttress and embellish identities" (Hunt & Benford, 1994: 185). For instance, Weber, Heinze & DeSoucy (2008) document how the "grass-fed" meat and dairy products industry used codes such as "family farm", "unspoiled breeds", "free range" to tap into newly emerging societal discourses of sustainability, environmentalism and anti-corporatism and create an identity distinct from and counter to organized, industrial scale, monoculture and mass retail based mainstream meat industry. In doing so, they project this identity to discerning consumers sharing these values.

However, despite the acknowledgement of the importance of the cultural context and societal discourse, the sources of frames themselves are relegated to the background. We suggest that organizational frames represent agentic localization of cultural codes drawn from field level institutional logics by actors to produce distinct coherent meaningful identities. This conceptualization is distinct from direct usage of categorical elements of logics by actors (e.g. see McPherson & Sauder, 2013). Instead, we argue that founding actors in charter schools

differentially access fragments of institutional logics in the field and repackage them in distinct locally meaningful organizational frames, which are then selectively deployed by founding actors. This extends our understanding of how field level institutional logics may be instantiated at the organizational level. Our analysis is also guided by the intuition that actor’s access to specific logics and frames is constrained by their background characteristics. In sum, we examine the emergence of a new organizational form – charter schools – by identifying distinct organizational frames or identities embedded in the charter school founding applications. This allows us to understand how a new organizational form is “settled” in terms of the organizational manifestations of field-level ideas by different founding actors over time.

## **RESEARCH CONTEXT**

### **Charter Schools**

The State of California was an early adopter of the charter school organizational form and was the second state to pass a charter school law – the Charter School Act of 1992. The legislative goals were to: (1) expand learning experiences for academically low achieving students; (2) encourage use of different and innovative teaching methods; (3) provide parents and pupils with expanded choice; and (4) provide the schools with a method to change from rule-based to performance-based accountability systems.<sup>2</sup> Charter schools receive per-pupil funding from the state like other public schools, but many also receive funding and support from individual donors and foundations. As of 2015, there are 982 charter schools with an enrollment of 370,000 students in California, totalling roughly six percent of the state’s total school enrollment.<sup>3</sup>

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<sup>2</sup> Legislative Intent, California Charter School Act of 1992

<sup>3</sup> [www.cde.ca.gov](http://www.cde.ca.gov)

We analyze all charter school applications submitted to the Oakland school district in California during the period 1992-2014. The key requirement for opening a charter school is to submit a charter school application, and an application can be made by any individual or organization (both non-profit and for-profit) with the support of teachers and interested parents. The application must address a number of specified elements, including the proposed school's educational program, measurable pupil outcomes, governance structure, budget, and community support and engagement. Overall the charter application should have a clear mission and vision, a strong team representing various functional competencies (including education, assessment, business and finance), governance policies, a clear description of the target student population, and evidence of community support. The local school district can deny any charter application based on the following five criteria: (1) the charter school presents an *unsound* educational program for the pupils to be enrolled in the charter school; (2) The applicants are *demonstrably unlikely* to successfully implement the program set forth in the petition; (3) The petition does not contain the number of signatures required; (4) The petition does not contain an affirmation of each of the conditions described in subdivision; (5) The petition does not contain *reasonably comprehensive descriptions* of all of the required elements (emphasis ours)<sup>4</sup>. However, these criteria do not provide any ready identity template and do not provide clear criteria for success. While the category of charter schools was created by law in 1992, the identity of the new organizational form was far from settled. In this environment, with unclear standards of legitimacy, several powerful legacy participants (e.g. state agencies, school district, teachers) and

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<sup>4</sup> California Education Code 47605

new actors (e.g. educational service providers and community organizations), we have a rich field for examining the emergence of an organizational form.

### **Institutional complexity in the charter schools field**

The education field is institutionally complex because of the sheer array of actors and occupations present, all motivated and conditioned by different logics (Greenwood, Raynard, Kodeih, Micellota & Lounsbury, 2011). For charter schools, the traditional sectors in the field – traditional school education governed by state and federal regulations alongside a structured profession of school teachers and unions – was now combined with a market driven orientation of charter school proponents and business leaders, and community activists leading school choice. Hence, we see four institutional logics emanating from the societal sectors of state, profession, market and community which simultaneously impinge upon the actors in this field. Given this complexity, the field lacks a dominant model and there are multiple, even contradictory, potential identities for organizations (Fiss & Hirsch, 2005). Further complexity is added by charter school founders, who may include parents, community organizations, teachers and Charter Management Organizations (CMOs). These founding actors differentially access salient institutional logics and engage in identity work to project a legitimate identity. Thus, charter school applicants must employ vocabulary that connects the new form of charter school with established cultural accounts. We investigate how the plural logics of state, profession, market and community are embedded in organizational identities.

The state and teaching profession are the traditionally dominant logics within the field of public education. For example, the 2001 Federal law, No Child Left Behind, laid down policy guidelines regarding charter schools; and State laws, such as the California Education Code, explicitly state the policies for opening and managing charter schools. Thus, the state logic

should have a clear impact on how charter schools are formed. In addition, teachers act as a quasi-profession because they are the repositories of specialist knowledge gained through structured academic preparation and experience. Traditional professions, such as lawyers and medical doctors, are characterized by the claim over a distinctive jurisdiction, abstract knowledge, common code of ethics, and self-organization through peer review (Abbott, 1988). Although teaching is not as strong a profession in the US as law or medicine (Goodlad, 1990; Bottery, 1996), teaching is the most organized profession within the field of education and teachers are critical constituents of any school. These two important logics, state and profession, have been studied within the institutional logics framework (Dunn & Jones, 2010; Goodrick & Reay, 2011).

The new logics represented in the charter school form, given the history we have described, are the market and community logics. The market is one of the key ideological moorings underpinning the charter schools movement. There has been a shift towards “organizational, or better yet, a corporate society” and this trend of market orientation has progressed in transportation, healthcare and the military (Barley, 2007: 201). Research suggests that emphasis on competitive market mechanisms and increased private sector involvement has gained traction in public education (Quinn et. al., 2014). The market logic is exemplified in the field of education by the argument for efficiency through competition and increased attention to the customer (students) through school choice. Similarly, the community logic has gained prominence in the charter schools movement. Within the charter schools discourse, the community logic represents the commitment to local values and ideology, draws attention to the concerns of parents and families, includes the local community in school processes and makes the school visible in the locality served by the charter school. Although the community logic has

been less frequently studied within institutional logics, organizations reside in the shadow of the community, which are the essential mediators of organizational performance and growth (O'Mahony & Lakhani, 2011; see also, Lee & Lounsbury, 2015). Accordingly, we expect both market and community logics to be salient in this field.

In summary, four salient logics of state, profession, community and market are relevant in the emergence of charter schools. We follow prior research and explicate institutional logics “ideal types” in order to facilitate comparison (e.g., see Thornton, 2004; Thornton, Ocasio & Lounsbury, 2012; also see Thornton, Jones & Kury, 2005 for accounting, architecture and publishing; Quinn et. al., 2014 for charter schools; and Goodrick & Reay, 2011 for pharmacist profession). See Appendix A for the theoretical ideal types of each of these logics. These ideal types provide formal analytical models against which empirical observations can be compared.

## **RESEARCH METHODS**

Language and vocabulary analysis has been extensively used to measure institutional logics (Dunn & Jones, 2010; Jones, Maoret, Massa & Svejnova, 2012; Lowenstein, Ocasio & Jones, 2012), rhetorical strategies (Suddaby & Greenwood, 2005) and specific vocabulary registers representing logics (Jones, Livne-Tarandach & Balachandra, 2010; Jones & Livne-Tarandach, 2008). Accordingly, we use vocabulary analysis to examine both the field level logics of education and the founding documents of charter school applications. First, we operationalize institutional logics of state, profession, market and community through content analysis of representative documents from the field. Second, we use topic modeling (Blei, 2012; Blei, Ng & Jordan, 2003) to identify key underlying themes embedded within the charter school applications and code each theme for the presence of institutional logics (words from the first step) and the latent frame represented by the theme (by interpreting the constellation of words).

Third, we code the mission statement in each application for any explicit attempt at presenting a distinct identity or sensegiving. Explicit frames may be deployed in order to actively identify with issues, causes and audiences (see Weber et. al., 2008; Benford & Snow, 2000). Finally, we run a series of simple statistical tests to look for patterns in the emergence of organizational identities. We consider the founding actors associated with these distinct identities and how they change over time.

### **Measuring institutional logics**

Following prior research, we locate archival sources representing institutional logics in the field of public education in the US. In order to identify the vocabulary registers of the institutional logics of state, profession, market and community we sampled a set of representative documents and identified vocabulary distinct to each logic. For instance, to measure state logic, we used key federal regulations (e.g. NCLB 2001), state regulations (e.g. California Charter School Act 1992), department of education strategic plans and school education reports released by the state of California (e.g. California Master Plan 2002). These documents include the all the key federal and California state documents guiding school education in California. Similarly, we identified key documents representing professional logic (e.g. press releases and reports from American Federation of Teachers), market logic (e.g. reports from pro-market think tanks, such as the Heritage Foundation) and community logic (e.g. press releases and reports from community organizations active in the charter schools movement). Table 1 presents the details of field documents used for identifying vocabulary registers representing each logic.

*Insert Table 1 here*

Next, we used a multi-step content analysis process using qualitative analysis software MAXQDA 2010<sup>5</sup> to content analyze these field documents. We broadly followed the steps presented by Jones & Livne-Tarandach (2008) and Jones, Livne-Tarandach & Balachandra (2010). First, we examined the word frequencies to identify the distinct words used in the field documents and removed incomprehensible and irrelevant words (e.g. wrong spelling, pronouns, and connectors such as “and”). Second, we standardized word frequency by calculating the average word frequency ratio (total word frequency divided by total number of unique words in the field document) and selected words with frequency ratio more than the average word frequency ratio. We also ensured that only words uniformly present across the field documents representing the logics were considered. Next, we used scree plots of word frequency ratios to identify shifts in word usage, i.e., sudden drop in ratios indicating high usage words. We decided cut-offs based on the slope of the scree plot and included words present before the slope became comparatively flat. We also incorporated words from the topic modeling solutions, generated in the next step, to ensure that we did not miss key low frequency words. These additional words were assigned to logics based on higher relative frequency across logics. For instance, the word “transformation” has a relative frequency of 3 within community logic documents, versus the value of 1 for professional logic documents and being absent in the state and market documents. Accordingly we assigned the word “transformation” to the community logic.

Overall, this content analysis process resulted in 52 distinct keywords for state logic, 22 for professional logic, 14 for market logic, and 26 for community logic. Further, we also identified 52 bivalent keywords, those overlapping two logics. Appendix B presents the exhaustive keywords list by each logic and words overlapping two logics.

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<sup>5</sup> MAXQDA, software for qualitative data analysis, 1989-2016, VERBI Software – Consult – Sozialforschung GmbH, Berlin, Germany.

## **Generating latent frames in charter applications - Topic modeling**

Topic modeling (Blei, 2012; Blei et. al., 2003) is a machine learning method for discovering hidden thematic structures in large data corpuses through probabilistic modeling. With a set of documents as input, topic modeling returns a pre-specified set of “topics” (constellation of words that tend to co-occur more frequently across documents), which represent themes that are latent in a collection of documents and captures the frequency distribution of generated topics that best accounts for each document (Mohr & Bogdanov, 2013; DiMaggio et. al., 2013). Though a common tool in literature, more recently organizational theorists have adopted it in various empirical settings, such as in a corpus of patent applications (Kaplan & Vakili, 2015), framing of government assistance by news media (DiMaggio et. al., 2013) and changes in meanings of seemingly fixed concepts (e.g. crime) over time (Miller, 2013). As one of the outcomes of topic modeling is the presence of a topic across documents, it enables researchers to compare different documents with respect to topic frequency distribution in the same corpus. Topic modeling permits the researcher to “discover the structure of corpus before imposing their priors” and it recognizes “the relationality of meaning” (DiMaggio et. al., 2013: 577). We used topic modeling, instead of, for example, word frequency analysis, because of the issue of polysemy, that is, meaning resides in co-occurrence of words. Distinctly different latent themes may share words, but their meanings may differ substantially because of the combination of words.

We used Latent Dirichlet Allocation (LDA), one of the simplest and most commonly used topic models (Blei, 2012). LDA assumes that there are a set of topics in a document corpus, and groups together terms that co-occur together more frequently than by chance. The algorithm behind LDA analyzes simultaneously the topics and proportion of topics in each document. For a

corpus of text, LDA results produce a set of topics and an estimate of topic proportion for each document. We ran sampling based LDA through MALLET (McCallum, 2002), a java-based package. Our input document corpus included 89 charter school applications submitted to the Oakland School District in California during the period of 1992 – 2014, that is, since the inception of charter schools. Our corpus represents all the charter applications (both accepted and denied petitions) submitted to the Oakland School District, except for five charter applications that we could not find or recover the text files. We included all the documents in one analysis, assuming a common underlying discourse structure. This allows us to examine variations in discourse over time. There is no statistical test for the optimal number of topics. In fact, the idea is “to identify a number of substantively meaningful and analytically useful topics” (DiMaggio et. al., 2013: 583). Accordingly, we ran several iterations ranging from 10 to 100 topics. After these attempts, we settled on using a 20 topic model, as it provided the most coherent set of interpretable topics and was reasonably consistent with iterations using 10 different seed numbers (see Appendix C). All iterations used default MALLET hyper-parameter values.

### **Interpreting latent themes and identifying organizational frames**

The most important element in topic modeling is assigning a coherent theme to the group of words in a topic (DiMaggio et. al., 2013). First, we visually assessed the presence or absence of specific logics in every topic. Next, following standard inductive research process (Charmaz, 2006; Yin, 1994), both the authors independently coded for (1) the dominance of specific institutional logics in each topic; and (2) the overall meaning inherent in each topic. Then, the authors discussed and reconciled their independent coding for each topic. Of the twenty topics generated, we were able to interpret sixteen for the presence of one or more institutional logics and latent frames. We were not able to meaningfully interpret four topics, which is not

uncommon in topic modeling (see Mohr & Bogdanov, 2013; DiMaggio et. al., 2013). The complete coding of each topic by latent frames and institutional logics is in Appendix D.

Once all the topics had been appropriately coded by logics and latent organizational frames, we ran a set of statistical t-tests to ascertain the (1) acceptance of charter applications over time; (2) shift in usage of logics and frames over time; and (3) initial and final identities of the charter school organizational form by founding actors' characteristics. The time period was divided into two phases: initial phase (1992 – 2005) and final phase (2006 – 2014). We chose 2006 as the cut-off point as it represented the peak of the number of charter school applications submitted, and thus is a proxy for identifying pre-establishment and post-establishment phases of the field.

Prior research suggests that the characteristics of the founding actors may have long term effect in terms of future organizational outcomes (Beckman & Burton, 2008; Beckman, 2006), and forging of organizational identity (Fauchart & Gruber, 2011; Gioia, Price, Hamilton & Thomas, 2010; Hsu & Hannan, 2005). As charter schools represent entrepreneurial ventures in a new field, we expect different founding actors to embed identity elements in charter school applications in unique ways. Hence, we identified three different types of founding actors in this field: Charter Management Organizations (CMOs), Community founders and “Other” founders. CMOs are nonprofit entities that manage two or more charter schools. CMOs often provide back office functions for charter schools to take advantage of economies of scale, but some also provide a wider range of services—including hiring, professional development, data analysis, public relations and advocacy. For this analysis, we also coded Education Management Organizations (EMOs) as CMOs (N=3). Legally EMOs are for-profit entities that manage charter schools and perform similar functions as CMOs (which are non-profit). We coded community

founders based on the representation of local community in the proposed school board or management team and explicit support of community organizations, such as Oakland Community Organizations (OCO) and PICO network. The rest of the founding actors, who we were not able to categorize in any coherent grouping were treated as “other” applicants. These applicants represent founders with a diverse set of backgrounds, such as, parents, teachers and community members with varied and extensive functional experience of teaching, school administration, business administration, law, community organizing, non-profit management, and education reform advocacy. We identified 30 CMO, 11 community and 48 other applications.

## RESULTS

We first analyze latent frames embedded within charter applications and the institutional logics from which these latent frames are drawn. We find field-level logics present in all interpretable topics (with state and market being the most prevalent). Our interpretation of the topic model results reveal five latent frames used in charter school applications: *youth development* (largely reflecting a community logic); *college preparation* (largely reflecting a market logic); and three topics largely utilizing profession and state logics: *literacy*, *instructional*, and *formalization*. These latter three frames are present in a large number of the charter petitions, reflecting the incorporation of traditional logics into the application for new schools. In contrast, *youth development* and *college preparation* represent the challenging logics of market and community. A summary of the latent frames and corresponding institutional logics by topic can be seen in Table 2. For instance, youth development frame may include various combinations, such as pure community, community and market, and community and profession.

However, community is the dominant logic for youth development frame as it is present in all three combinations, though it is not an exclusive logic of that or to that frame.

*Insert Table 2 here*

The meanings of the topics, collapsed into these 5 frames, have clear local meaning. Youth development frame signifies the importance of the local community with respect to students. The frame uses words like social, community, families, youth, students, school, learning, support, development and transformation. College preparation frame signifies a student focused schooling outcome – rigorous academic preparation for students, primarily geared towards entry to universities and colleges after finishing high school - and uses words like university, college, graduation, success, prepare, leadership, support, and grade. The literacy frame signifies a focus on the basic functions of a school – ensuring reading and writing abilities of students, especially in English language, and uses words like reading, writing, language, english, words, learning, and support. The instructional frame signifies the core process of teaching in schools - the pedagogical aspects of classroom learning - and uses words like teacher, instruction, assessment, data, process, strategies, performance, expectations, and standards. Finally, the formalization frame signifies the bureaucratic standardization of systems and processes, especially compliance with federal and state laws and uses words like principal, code, harassment, office, complaint, designee, expulsion, discrimination, employee, information, policy, plan, handbook, emergency and report.

We next consider the explicit identities embraced in the “mission” statement in charter applications. The mission statement is a required section of the application where founding actors state the most salient aspects of the charter school’s proposed identity in a condensed format. We identify five explicit frames used in charter applications: STEM, special theme,

disadvantage, academic rigor and language literacy. STEM refers to the unique focus of the school on science, technology, engineering and math courses. Special theme refers to those applications incorporating nonacademic themes as guiding principles in their pedagogical approach (e.g. music or art based learning). Disadvantage refers to the dominant mission of the school as serving failing students in underserved poor communities. Academic rigor refers to the focus on high academic expectations, additional contact hours, technology driven teaching, leadership training, test scores, college preparation and internships. Language literacy refers to the specific concern regarding effective learning of English language in minority communities. We find that the disadvantage frame is most often used (29 applications), followed by academic rigor (20 applications), special theme (16 applications), STEM (11 applications) and language literacy (9 applications).

*Insert Table 3 here*

As detailed in Table 3, we explore which founding actors are more likely to adopt particular frames. We find that the identity of CMO applications are that of a “college preparatory” for students, which is based on significantly high use of college preparation and academic rigor frames, and significantly less use of youth development frame. CMOs are the only actor whose charter applications are more likely to be approved (and only in the early period). In other words, they more successfully found new schools at the beginning of the time frame. We also see that community founded organizations are associated with the “youth development” frame. These are the two founding actors most closely associated with the new logics – market and community – creating new organizational identities that incorporate those field level ideas. However, it is important to note that these latent frames have a particular meaning that evolves beyond the market or community level logics. College preparatory, for

example, represents a clear educational model with distinct practices that is very specific and locally resonant to the charter school form. Importantly, the explicit frames are not associated with any of the institutional logics in the field or with the dominant actors relevant for form emergence, but these explicit frames are associated with the “other” founding actors that were more peripheral to the founding of the form. STEM and Special Theme identities, in particular, are adopted by these peripheral actors.

In Table 4 we examine latent and explicit frames by founding actor in the initial period, and in Table 5 we look at these frames over time. As seen in Table 5, peripheral actors are more likely to adopt these new explicit frames in the latter period. These actors start with the “youth development” and Special Theme frames but switch to the STEM and Special Theme frames over time (they also reduce their use of the more common frames of Instructional and Literacy over time). This suggests that other actors are able to use the organizational form for their own purposes and add new identities to the mix. In contrast, the identities used by CMO and community founders are stable over time.

*Insert Tables 4 & 5 here*

Hence, in the second period, we find four distinct identities of the charter school form co-exist: college preparatory schools (predominantly CMOs); youth development schools (predominantly community founders); STEM schools (predominantly other founders) and Special Theme schools (predominantly other founders). This suggests an increase in identities, and not the settlement or dominance of one particular identity. In addition, it is important to note that the “other” founding actors do not use frames associated with any of the institutional logics. This further suggests that the increased variety of organizational identities moves beyond the

political contestation and logics involved in the establishment of the legal form. In Figure 1 we showcase the linkages between institutional logics, organizational identities, and founding actors.

*Insert Figure 1 here*

## DISCUSSION

Rao & Kenney (2008) propose that we understand new forms as “settlements”, that is, negotiated understandings and expectations about a new form, which become identity codes as these understandings and expectations are enforced. Thus, identity settlement follows political settlement. However, in our analysis we find that legitimization of a new organizational form may not necessarily lead to settlement or homogenization of form identity. Instead, the charter school form seems to have a durable “patchwork” of identities from different founding actors (Rao & Kenney: 361). It is not within organizations where we see blending of identity elements as much as we see differences across organizations. There are some common elements based on state and professional logics (the literacy, formalization and instructional frames) but these are not the frames that differentiate organizations: distinctiveness can be found elsewhere.

Importantly, the diversity of identities primarily emerges over time through the other founding actors – not those represented in the early contestation and establishment of the organizational form. Community and market actors use consistent frames over time, and it is the unique explicit (rather than latent) frames adopted by other actors over time that provides variety and diversity in the form. In other words, the diversity and experimentation offered as a rationale for the form when the legislation was passed do emerge – but it does over time and from those actors new to the form rather than from the initial players. A space has been created by the initial founding actors but utilized by others. This is partly because the charter school

form is ambiguous and open enough to allow for multiple identities to co-exist within the form (recall the broad reasons for the rejection of a charter application).

Unlike other cases where the settlement of the form is brittle and breaks down when a variety of identities emerge, such as the SBIC context (Rao and Kenney, 2008), charter schools remain a clear and in some places increasingly dominant organizational form after two decades. Contestation continues around the form itself, between charters and district schools, even as variety within the form flourishes. This is an interesting outcome, as one of the assumptions of the institutional approach is coevolution of a distinct form identity with form emergence – a clear definite collective identity representing the form (e.g. see Navis & Glynn, 2010). Yet we see this organizational form, legitimized through legislative fiat, surviving with multiple identities. So, what explains the lack of identity settlement to a single organizational identity within the form? Even after more than two decades, the form's political legitimacy is contested but not the identity codes within the form.

One explanation of why the variety within the charter school form remains, and indeed grows, may be a result of the lack of competition between charter schools. We find a within form settlement suggestive of “something for everyone” as all three types of founding actors have distinct identities (Rao and Kenney, 2008: 356). These schools operate within distinct geographic areas, and the density of charter schools within any one area does not seem to have created competition for students or for resources (a mapping of schools by locations is consistent with this possibility). Rao & Kenney (2008) suggest that the trajectories of form emergence, specifically identity codification, will depend on the level of ideological compatibility of the actors and the asymmetry of power amongst them. If the actors are not competing with each other for the same set of resources, however, the issues of ideological incompatibility and power

asymmetry become secondary. Instead we see the charter schools focus outward to competition with the traditional form (district schools). In other districts, where charter schools have become more dominant and account for nearly half of all schools in a district, competition may lead to a more typical winnowing of the organizational identities. Examining a more dense charter environment within USA, like New Orleans or Washington DC, would be a useful extension of our work.

An interesting question to pursue is whether the diversity of identities within the form provides strength to the form itself – is it resilient to a variety of attacks of the form – or whether that variety will facilitate attacks on the form. For example, current debates on charter boards of director composition have begun to pit parent representation (aligned with the community logic) against business leaders (aligned with the market logic) (Sharfenberg, 2016). Importantly, this takes the two most stable identities, backed by CMO and community founders respectively, and pushes for a valuation of one model over the other. Although the templates for the different identities were combined from the new logics brought to the field – and so are not exclusively tied to their institutional logics - prior research suggests that ideological movements tend to hold on to their initial frames and avoid changes which may stray them from the core (see Babb, 1996 for a study of the US labor movement). These ideological poles may provide the fodder for those opposed to the charter form to provoke contestation within the form that has so far been avoided. However, it is also possible that the identity proliferation by peripheral actors will help sustain the form itself if the dominant identities come under attack. Prior literature has typically suggested that peripheral actors may have the will but not the capability to undertake identity construction (Wright & Zammuto, 2013; Maguire, Hardy & Lawrence, 2004). In this instance, where the form is legitimate but the identity is not specified, peripheral actors have created new

identities without suffering any penalty. This has led to an increase in experimentation and diversity of identity from this group of founders, as hoped for in the initial legislation. The variety we see may be a function of the range of founding actors and the ability of peripheral founding actors to engage in identity work.

Future work may also benefit from a cross-national comparison of new charter forms. For instance, comparing the emergent identities within the charter school form in US with emergent identities within similar forms in other countries (e.g. academies in Britain and Kura Hourua or partnership schools in New Zealand) may contribute to our understanding of form emergence. Our initial reading suggests that the charter school form in Britain and New Zealand have emerged quite differently than the US. The case of academies in Britain was primarily driven by aggressive pro “market” position taken by both the main political parties – Labour Party under Tony Blair and the Conservative Party. There is little evidence of any grass-root community led movement, unlike in in US. In fact, recent plans for the expansion of academies have been vociferously opposed by both community and professional groups. In contrast, the demand for partnership schools in New Zealand is predominantly driven by ethnic minority groups, the Maoris and Pasifika. Of the eight partnership schools operating (to date), five are run by Maori and Pasifika community groups and two by Christian religious organizations. This suggests that the diffusion of a template or label (charter school) may be used by recipients in a highly contextual manner and allow instantiation of various logics favored by protagonists – from a dominantly market logic in Britain to dominantly community logic in New Zealand, and co-occurrence of both in the US. This has direct ramification for the nature of conflict and patterns of identity settlement during form emergence. The close cooperation between carriers of market and community logics during the establishment of charter form in the US may have contributed

to the establishment of a patchwork of distinct identities – one form, multiple identities. In contrast, in Britain and New Zealand we may expect a “one form–one identity” settlement. Cross-national comparisons provide us the opportunity to explore how the historical trajectory shapes the identities within a form.

Theoretically, within the realm of the institutional logics literature, the idea that actors are skilled cultural operators who are able to access the institutional environment in order to gain audience support is well acknowledged (see Uberacher, Jacobs & Cornelissen, 2015; McPherson & Sauder, 2013; Weber et. al., 2008). It is less clear, however, how actors access the institutional environment, and our analysis of field-level vocabulary in organizational identities offers a useful tool for examining how actors combine fragments of multiple institutional logics to create distinct meaningful frames. Our analysis suggests that it might be fruitful to consider frames, as extensions of logics, to measure organizational identities. The broader field level institutional logics may be filtered at the organizational level both by the unique characteristics of the organization (e.g. type of founding actors). Organizational frames allow us to integrate multiple logics and highlight that actors enjoy certain level of autonomy in drawing and mixing logics. Such an understanding of the relationship between actor’s cultural agency and institutional logics may add to our current understanding, and vocabularies and topic modeling provide a useful tool for this analysis.

In addition to the methodological benefits of using topic modeling in this space, future work may also leverage the potential of topic modeling to analyze and compare hidden meaning structures in discourses across levels. For instance, we can potentially apply topic modeling to the field level discourse (institutional logics) as well as the organizational discourse. Through this alternative analysis we may be able to identify distinct latent themes within the *field* and then

compare them with latent themes present in *organizations*. Such an analysis may present a meaningful “frame-frame” comparison across levels, instead of a “words-frames” comparison as we did here.

In addition, our work can be extended to other legislation driven contexts where legitimized forms with underspecified identities may be established, such as health care and financial services. Cross sector comparisons may allow us to examine whether certain patterns of form emergence are sector specific or logic specific. For instance, professional logic may be more salient in the healthcare field. A cross-sector comparison can help us to theorize how differences in salience of specific logics may lead to alternative patterns of form-identity settlement.

Beyond organizational forms, we see direct implications of our work in examining the emergence of distinct organizational identities as a new field is established. For instance, temporal discourse analysis of the field of sustainability may suggest development of three distinct organizational identities: technology focused, community focused and environment focused. A technology-focused identity may draw upon the role of technical innovations in driving sustainability, spawning ventures specializing in technical solutions to immediate problems (e.g. low fuel consumption cars and non-carbon based sources of energy). An environment-focused identity, drawing from the core conservationist impulses of historical environmental movements, may favor isolation and protection of existing ecology (e.g. save the whales movement or project tiger). Finally, a community-focused identity may favor localization and community ownership of sustainability, through stress on traditional knowledge, local solutions and human rights (e.g. Survival International and Amazon Watch). Understanding the

emergence of these identities, and how they interrelate, may help us understand the settlement of fields as well as forms.

## **CONCLUSION**

This paper explains how the diversity of identities increases during the emergence of a new organizational form. Through analysis of representative field level documents in public education and charter school applications in the Oakland, California, school district, we specifically explicate how founding actors combine fragments of multiple institutional logics of state, profession, market and community to create distinct locally meaningful coherent frames. We identify five distinct underlying frames embedded in charter applications, as well as five distinct explicit frames in charter application mission statements. Our analysis suggests that: (1) diversity of identities increases over time, through other founding actors that have few ties to existing ideologies and contestations; and (2) market founding actors (CMOs) and community based founders have the most consistent identities (college preparatory and youth development). This study contributes to our understanding of settlement, or lack thereof, of an organizational form and the process by which actors may access field level cultural material to create new meaning systems.

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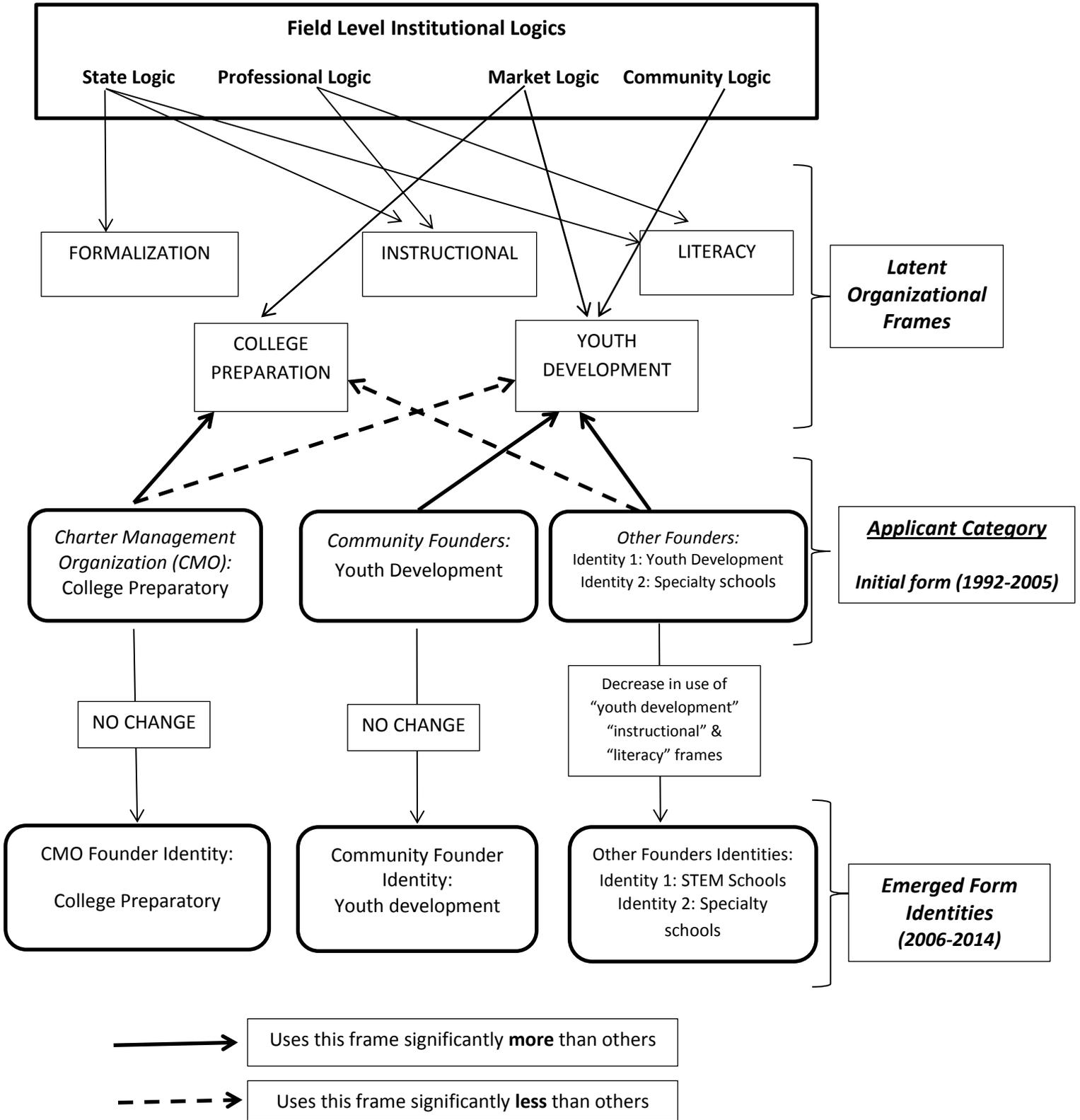
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FIGURE 1



**Table 1. Sources of institutional logics - summary of field documents**

State Documents (N=11)	Professional Documents (N=30)	Market Documents (N=22)	Community Documents (N=16)
<i>Federal Regulation</i>	<i>Press Releases &amp; Reports</i>	<i>Think Tank Reports on Education</i>	<i>Book</i>
No Child Left Behind, 2001	American Federation of Teachers	The Heritage Foundation	Hard Lessons: The promise of an inner city charter school
<i>Department of Education Strategic Plans</i> Years: 2001 -2005; 2002 - 2007; 2007 - 2012; 2011 - 2014	United Federation of Teachers California Teachers Association	The American Enterprise Institute The CATO Institute	<i>Community Organizations</i> Oakland Community Organizations (OCO) Center for Educational Justice, NY PICO Network <i>Reports on Community Organizing</i> Annenberg Institute for School Reform, Brown University
<i>Department of Education Guidance Notes</i> School Choice Guides, 2003 and 2009 Charter Guide, 2004			
<i>California State Documents</i>			
California Charter School Act, 1992			
California Masterplan for Education, 2002			
California Blueprint for Great Schools, 2011			
<b>328847 Words</b>	<b>124430 Words</b>	<b>118491 Words</b>	<b>128309 Words</b>

**Table 2: Latent frames and dominant institutional logic sources**

<b>Latent Frame</b>	<b>Logic 1</b>	<b>Logic 2</b>	<b>Applications (N)*</b>
Youth Development	Community		3
	Community	Market	7
	Community	Profession	17
College Preparation	Market		20
	Market	State	3
	Market	Community	7
Formalization	State		9
	State	Market	12
	Generic		4
Instructional	Profession	State	38
	Profession	Community	6
	State		3
Literacy	Profession	State	38
	State	Community	1
	Profession	Community	6
	None	None	3

*\* Number of charter applications in which the specific logics combination for each latent frame is present*

**Table 3: Frames and Institutional Logics by Founding Actors**

		Founder Type		
		CMO (30)	Community (11)	Other Applicants (48)
<b>Institutional Logics</b>	State	10***	6	31**
	Professional	11**	8	28
	Community	2***	9***	18
	Market	15	4	29
<b>Latent Frames</b>	Youth Development	1***	7***	16
	College Preparation	15**	3	12*
	Formalization	13	3	20
	Instructional	11	7	24
	Literacy	10*	7	25
	STEM	1*	1	9**
<b>Explicit Frames</b>	Special Theme	0***	1	15***
	Disadvantage	10	5	14
	Academic Rigor	15***	0**	5***
	Language Literacy	2	0	7

\* p<.1; \*\* p<.05; \*\*\*p<.01

Cell Color: Dark Gray - Positive; Light Gray - Negative

**Table 4: Initial Founder Identity**

		Time Period: 1992-2005		
Variables		CMO Applicants N=11	Other Applicants N=23	Community Applicants N=11*
<b>Latent Frames</b>	Youth Development	1***	13**	7***
	College Preparation	7**	5**	3
	Formalization	4	8	3
	Instructional	5	15	7
	Literacy	5	15	7
	STEM	0	1	1
<b>Explicit Frames</b>	Special Theme	0	6**	1
	Disadvantage	4	5	3
	Academic Rigor	4**	3	0
	Language Literacy	1	3	0

\*\* p<.05; \*\*\*p<.01

\*Total community applications. N size in initial period too small (3)

Cell Color: Dark Gray - Positive; Light Gray - Negative

**Table 5: Identity Shifts over Time**

		CMO Applicants		Community Applicants		Other Applicants	
Variables		1995-2005	2006-2014	1995-2005	2006-2014	1995-2005	2006-2014
N		11	19	3	8	23	25
<b>Latent Frames</b>	Youth Development	1	0	2	5	13	3***
	College Preparation	7	8	1	2	5	7
	Formalization	4	9	1	2	8	12
	Instructional	5	6	2	5	15	9**
	Literacy	5	5	2	5	15	10*
<b>Explicit Frames</b>	STEM	0	1	0	1	1	8**
	Special Theme	0	0	0	1	6	9
	Disadvantage	4	6	2	3	5	9
	Academic Rigor	4	11	0	0	3	2
	Language Literacy	1	1	0	0	3	4

\* p<.1; \*\* p<.05; \*\*\*p<.01

Cell Color: Dark Gray - Positive; Light Gray - Negative

**Appendix A. Ideal Type of Institutional Logics and Characteristics of School Education Field**

<b>Characteristics</b>	<b>State Logic</b>	<b>Professional Logic</b>	<b>Market Logic</b>	<b>Community Logic</b>
<b>1. Mission / Goals</b>	Universal education; student academic outcomes	Personal development of students	High quality education; Build competitive position	Propagate community values; student academic outcomes
<b>2. Sources of Identity</b>	Educational Equity	Teaching as a profession	Education as business	Cultural, religious, ethnic moorings of the local community
<b>3. Sources of Legitimacy</b>	Student achievement; school improvement	Specialist knowledge through educational programs controlled by the profession.	Competition driven quality and innovation; customer choice	Community as a stakeholder in education
<b>4. Governance: Sources of Authority / Authority Structure</b>	Bureaucratic hierarchical: State regulations; Elected district board; Superintendent; union representation	Professional association: teachers have exclusivity of all key positions and actions.	Market competition: appointed board; leader as entrepreneur manager	Community oriented: elected board and community oversight
<b>5. Strategy</b>	Standardization of curricula and pedagogy; systems and plans, economies of scale; centralization of activities for operational efficiencies.	Professional autonomy for curricular and pedagogical innovation; professional development; individual attention to students	Acquisition based growth; build market channels to connect with customers	Localization; diversity of curricula and pedagogy to reflect unique character of the local community
<b>6. Expert Knowledge</b>	State credentialed teachers and principals; Experienced bureaucrats / administrators	Teachers with credentials from the professional association	Mix of specializations and departmental silos: Teachers, MBAs, CFA, finance, human resources	Mix of specializations: Teachers, MBAs, HR

**Appendix B. Key words representing institutional logics\***

State Logic	Professional Logic	Market Logic	Community Logic	Bivalent Words**	Logic 1	Logic 2
accountability	association	attend	build	assess	State	Profession
activity	classroom	choice	capacity	assist	State	Profession
agency	consultant	college	change	evaluate	Profession	State
allocate	contract	congress	class	family	Market	State
application	council	private	create	federal	Market	State
appropriate	course	response	engage	leader	Community	Market
authorize	experience	result	future	office	State	Community
available	health	scholarship	organize	opportunity	State	Market
award	mentor	spend	partner	organization	State	Community
california	nurse	studied	politics	participate	Profession	State
continue1	practice	voucher	power	people	Community	Market
determine	prepare	<i>online</i>	principal	profession	Profession	state
effective	process	<i>president</i>	<i>group</i>	quality	State	Profession
eligible	review	<i>research</i>	<i>creative</i>	recommend	Profession	State
english	skill		<i>urban</i>	responsible	State	Profession
enroll	special		<i>leadership</i>	school	State	Market
ensure	staff		<i>Transformation</i>	service	State	Profession
entity	<i>teacher</i>		<i>homework</i>	succeed	Profession	Community
fiscal	<i>teachers</i>		<i>spanish</i>	union	Profession	Market
grant	<i>skills</i>		<i>classes</i>	university	State	Market
identity	<i>harassment</i>		<i>community</i>	<i>schools</i>	State	Market
implement	<i>professional</i>		<i>communities</i>	<i>area</i>	State	Profession
increase			<i>relationships</i>	<i>corporation</i>	Community	Market
information			<i>focus</i>	<i>develop</i>	Profession	State
institution			<i>parent</i>	<i>development</i>	Profession	State
intervention			<i>reform</i>	<i>emergency</i>	Profession	State
issue				<i>governing</i>	State	Profession
language				<i>interested</i>	Community	Market
limited				<i>team</i>	Community	Profession
postsecondary				<i>teams</i>	Community	Profession
proficient				<i>workshop</i>	Community	Profession
provision				<i>workshops</i>	Community	Profession
purpose				<i>lesson</i>	Community	Profession
receive				<i>social</i>	Community	Market
secondary				<i>train</i>	State	Profession
secretary				<i>training</i>	Profession	State
serve				<i>youth</i>	Community	State
strategy				<i>youths</i>	Community	State

\* words in italics were derived from the topic model generated from charter school applications

\*\* overlapping two institutional logics (logic 1 and logic 2)

**Appendix B (Continued)**

<b>State Logic</b>	<b>Professional Logic</b>	<b>Market Logic</b>	<b>Community Logic</b>	<b>Bivalent Words**</b>	<b>Logic 1</b>	<b>Logic 2</b>
title				<i>assessments</i>	State	Profession
<i>fund</i>				<i>performance</i>	State	Profession
<i>enrollment</i>				<i>parents</i>	Community	Market
<i>projected</i>				<i>content</i>	Profession	State
<i>access</i>				<i>costs</i>	State	Market
<i>math</i>				<i>study</i>	Community	Market
<i>certificate</i>				<i>discrimination</i>	Profession	Market
<i>certificated</i>				<i>secure</i>	Profession	Community
<i>requirements</i>				<i>services</i>	State	Profession
<i>requirements</i>				<i>business</i>	Community	Market
<i>funding</i>				<i>board</i>	Community	Market
<i>educational</i>				<i>standard</i>	Market	Community
<i>local</i>				<i>teach</i>	Profession	Market

\* words in italics were derived from the topic model generated from charter school applications

\*\* overlapping two institutional logics (logic 1 and logic 2)

**Appendix C. Topic modeling solution for all charter applications - 20 topics (0-19) and 20 words (1-20)**

Topics	1	2	3	4	5	6	7	8	9	10
0	program	director	development	community	behavior	year	curriculum	staff	committee	research
1	students	student	district	board	education	academic	learning	year	community	state
2	leadership	schools	program	university	student	agreement	courses	college	site	graduation
3	student	principal	college	code	schools	students	writing	harassment	teacher	office
4	community	students	transformation	learning	student	schools	education	year	social	youth
5	students	student	teachers	class	grade	director	college	homework	staff	executive
6	education	child	parent	interested	meaningfully	guardian	year	code	grade	term
7	community	area	district	college	teachers	research	develop	engineering	families	urban
8	students	student	reading	writing	teacher	grade	language	learning	year	teachers
9	employee	time	students	employees	information	child	work	person	parent	days
10	staff	change	emergency	leave	response	employee	level	grade	office	learning
11	students	language	english	education	year	parent	immersion	child	guardian	sound
12	college	enrollment	unit	angles	leadership	workshop	lesson	review	spanish	access
13	council	student	governing	education	program	development	directors	director	year	programs
14	education	schools	program	development	student	students	support	teachers	instruction	instructional
15	budget	year	employee	projected	state	executive	director	fiscal	training	draft
16	community	creative	education	district	children	skills	standards	curriculum	program	grade
17	children	urban	language	child	understanding	design	develop	employee	director	words
18	board	corporation	directors	director	meeting	office	state	education	meetings	time
19	schools	students	innovation	team	year	member	executive	director	college	members

**Appendix C (Continued)**

Topics	11	12	13	14	15	16	17	18	19	20
<b>0</b>	social	classes	agency	policies	members	youth	learning	instructional	work	programs
<b>1</b>	code	staff	teachers	required	policies	include	standards	provide	work	educational
<b>2</b>	staff	technology	principal	research	office	small	support	requirements	service	
<b>3</b>	complaint	activity	designee	expulsion	pupil	learning	minilesson	level	discrimination	technology
<b>4</b>	support	district	children	leadership	families	development	primary	professional	teacher	
<b>5</b>	math	schools	day	content	year	teacher	standards	management	academic	families
<b>6</b>	estimates	request	attend	level	grant	number	guardians	pursuant	secure	enrolled
<b>7</b>	university	communities	social	support	success	training	relationships	projects	responsive	pupil
<b>8</b>	standards	assessment	level	support	data	process	read	strategies	instruction	english
<b>9</b>	leave	area	policy	plan	handbook	personal	year	emergency	employment	report
<b>10</b>	incident	instructional	performance	goals	writing	management	actions	expectations	standards	resources
<b>11</b>	word	meaningfully	parents	interested	words	guardians	term	letter	attend	
<b>12</b>	resources	skills	writing	essay	algebra	online	plan	lines	summary	prepare
<b>13</b>	staff	plan	certificated	faculty	instructional	month	schools	time	support	guardians
<b>14</b>	professional	teacher	staff	parents	team	curriculum	principal	skills	services	english
<b>15</b>	teacher	program	programs	pupil	costs	song	funding	research	brain	
<b>16</b>	research	english	reading	work	teacher	study	focus	writing	home	main
<b>17</b>	spelled	skills	writing	materials	english	numbers	number	executive	work	
<b>18</b>	bylaws	teacher	children	members	special	notice	interest	officer	president	business
<b>19</b>	diverse	student	data	draft	income	learning	technology	percent	project	

**Appendix D. Topics coded by institutional logics and latent frames**

<b>Topic</b>	<b>Applications (N)**</b>	<b>Institutional Logics</b>		<b>Latent Frames</b>	
0	17	Community	Professional	Youth Development	
1*	86				
2	15	Market		College Preparation	
3	4	Formalization			
4	3	Community		Youth Development	
5	5	Market		College Preparation	
6	3	State			
7	7	Community	Market	Youth Development	College Preparation
8	38	Professional	State	Instructional	Literacy
9*	29				
10	3	State		Instructional	Formalization
11	1	Community	State	Literacy	
12	1	Market	State	College Preparation	
13*	10				
14*	81				
15	6	State		Formalization	
16	6	Community	Professional	Instructional	Literacy
17	3	Literacy			
18	12	Market	State	Formalization	
19	2	Market	State	College Preparation	

\*Topic not interpretable

\*\* Number of charter applications in which the topic is present