

June 2007

Education Policy Analysis Archives 15/13

Arizona State University

University of South Florida

Follow this and additional works at: https://digitalcommons.usf.edu/coedu_pub



Part of the [Education Commons](#)

Scholar Commons Citation

Arizona State University and University of South Florida, "Education Policy Analysis Archives 15/13 " (2007). *College of Education Publications*. 633.
https://digitalcommons.usf.edu/coedu_pub/633

This Article is brought to you for free and open access by the College of Education at Digital Commons @ University of South Florida. It has been accepted for inclusion in College of Education Publications by an authorized administrator of Digital Commons @ University of South Florida. For more information, please contact digitalcommons@usf.edu.

EDUCATION POLICY ANALYSIS ARCHIVES

A peer-reviewed scholarly journal

Editor: Sherman Dorn

College of Education

University of South Florida

Volume 15 Number 13

June 25, 2007

ISSN 1068-2341

Bureaucratic Discretion and Alternative Teacher Certification: Understanding Program Variation in Missouri¹

Ethan B. Heinen
Central Connecticut State University

Jay Paredes Scribner
University of Missouri-Columbia

Citation: Heinen, E. B., & Scriber, J. P. (2007) Bureaucratic discretion and alternative teacher certification: understanding program variation in Missouri. *Education Policy Analysis Archives*, 15(13). Retrieved [date] from <http://epaa.asu.edu/epaa/v15n13/>.

Abstract

Alternative teacher certification literature has contributed significantly to our understanding of this approach to teacher preparation. However, this literature has more often than not treated alternative teacher certification programs (ATCPs) as a black box, thus ignoring program heterogeneity. The present study examines how and why five ATCPs in Missouri have evolved in different ways. To understand this variation and its potential significance for researchers and practitioners, we use political science literature on bureaucratic discretion to understand programs' varied responses within the same state policy context. Using a multiple case study design, we present two key findings. First, external factors such as the state's regulatory approach, programs' relationships with school districts, and programs' relationship with external partners shape program coordinators' perceptions of their discretionary authority. Second, within an environment of limited regulation, programs responded to these external factors in ways that shaped programs in

¹ This material is based upon work supported by the National Science Foundation under Grant No. REC 0335523 as part of the Evaluation Research Evaluation Capacity Building Program.



Readers are free to copy, display, and distribute this article, as long as the work is attributed to the author(s) and **Education Policy Analysis Archives**, it is distributed for non-commercial purposes only, and no alteration or transformation is made in the work. More details of this Creative Commons license are available at <http://creativecommons.org/licenses/by-nc-nd/2.5/>. All other uses must be approved by the author(s) or **EPAA**. **EPAA** is published jointly by the Mary Lou Fulton College of Education at Arizona State University and the College of Education at the University of South Florida. Articles are indexed by H.W. Wilson & Co. Please contribute commentary at <http://epaa.info/wordpress/> and send errata notes to Sherman Dorn (epaa-editor@shermamdorn.com).

dramatically different ways. These approaches ranged from formal partnerships with large urban school districts and philanthropic funders to alternative certification programs that were at least partially blended with existing undergraduate and post baccalaureate teacher preparation programs. In our discussion, we explore how state attempts to widen the discretionary *space between the rules* may have allowed external interests (e.g., school districts, and external funders) to backfill that space in ways that limit the potential for programs to provide high quality preparation experiences. This study explores these consequences and trade offs in order to inform policy makers and practitioners who are concerned with fostering innovative and creative ways to prepare high quality teachers.

Keywords: Teacher education; alternative certification; politics of education.

Discreción burocrática y certificaciones alternativas de maestros/as: Entendiendo la variación de programas en Missouri

Resumen

La literatura sobre certificaciones alternativas de docentes ha contribuido significativamente para nuestro entendimiento sobre este modelo de formación. Sin embargo, muy frecuentemente esa literatura ha tratado estos modelos como si fueran una caja negra, ignorando la heterogeneidad de los programas. Este estudio examina como y porque cinco programas de formación docente en el estado de Missouri desarrollaron variantes diferentes de certificación. Para entender esas variaciones y su potencial para la investigación, la práctica, así como para comprender las diferencias entre las respuestas de cada programa a una misma política estatal, utilizamos la literatura de las ciencias políticas sobre la discreción burocrática. Utilizando un diseño de estudios de casos múltiples, presentamos dos conclusiones relevantes. Primero, es que los factores externos, tales como el modelo de marco regulatorio del estado, las relaciones del programa de formación con los distritos escolares y las relaciones del programa con instituciones asociadas dan forma las percepciones de los coordinadores del programa acerca de la autoridad discrecional. Segundo, en un contexto de regulación limitada, los programas respondieron a los factores externos de maneras dramáticamente diferentes. Esas maneras variaron desde crear asociaciones formales con distritos escolares de gran tamaño y asociaciones filantrópicas hasta la fusión con programas de formación docente a nivel de licenciatura y de post-licenciatura. En nuestro análisis, discutimos como los esfuerzos del estado para expandir el espacio de discreción de las normas puede haber permitido que aquellos intereses externos (por ej. distritos escolares y financiadores externos ocupar espacios que limitan el potencial de los programas para proveer experiencias de formación de buena calidad. Este estudio explora las consecuencias, positivas y negativas para informar a quienes toman e implementan las decisiones políticas para estimular formas innovadoras y creativas en la formación de docentes.

Palabras clave: formación de docentes.; certificaciones alternativas; políticas educativas.

In this era of high stakes accountability for public education the role and quality of teacher education has come under increasing scrutiny. As traditional four-year preparation models prepare teachers in over 1,300 colleges and universities across the US (Wilson, Floden, & Ferrini-Mundy, 2001), alternative teacher certification programs (ATCPs) have also proliferated as states attempt to address teacher shortages (Ingersoll, 2001). Unlike traditional teacher preparation, ATCPs ostensibly recruit professionals from fields such as law, business, and engineering into the teaching ranks at an accelerated pace. Several assumptions are inherent in the ATCP logic. For instance, policy makers often assume that efforts to attract professionals with substantive and relevant backgrounds are successful, and that those efforts result in the recruitment of substantial numbers of these experienced professionals. Many also assume that these professionals bring deep content knowledge that they can organize, access, and present in ways that improve student learning.

While our larger agenda examines these and other assumptions, this paper focuses on program variation across ATCPs and the effects of this variation on policy implementation. This study takes a step back to ask how and why ATCPs in one state, Missouri, respond to their policy context and what implications these decisions have for program variation. By understanding ATCP variation future researchers will be better situated to tease out different types or aspects of ATCPs that best serve aspiring teachers and under what conditions.

This study presents findings from the first phase of a multi-year project to evaluate the preparation, experience, and performance of alternatively certified mathematics and science teachers in Missouri. To understand how and why Missouri's ATCPs have evolved in such varied form we purposively selected the five ATCPs that prepare approximately 80 percent of Missouri's alternatively certified mathematics and science teachers. To achieve our purpose we borrowed from bureaucratic theory—specifically bureaucratic discretion—to examine each program within its unique context. Several questions guided this study, including: How, and in what ways, do ATCP stakeholders (e.g., program coordinators and instructors) make sense of their policy contexts as they shape their programs? What factors influence the level of discretion perceived by stakeholders? And, what impact do these varying levels of discretion have on how these programs develop?

ATCPs: The National and Missouri Contexts

The National Context

In the 1980s ATCPs emerged as a policy response to teacher shortages by accelerating the certification process (National Center for Education Information [NCEI], n.d. b; Dial & Stevens, 1993). In many cases ATCPs served specific needs including training teachers for specific content areas and/or particular locations (i.e., rural or urban). NCEI (n.d. b) offered a comprehensive definition of ATCPs:

The term commonly refers to becoming a credentialed teacher ranging from emergency teacher certification to very sophisticated and well-designed programs that address the professional preparation needs of the growing population of individuals who already have at least a baccalaureate degree and considerable life experience who want to become teachers.

Although ATCP effectiveness is routinely debated, they have had a significant impact on teacher certification (NCEI, n.d. b). As of 2003, more than 175,000 teachers had been certified through alternative routes, and 45 of 50 states had some type of alternative program managed at the state level. A National Center for Education Information report (NCEI) (n.d. a) suggests that alternative routes could soon contribute as much as one-third of all new hires.

According to Reichardt (2002), the teacher preparation system is implemented through the loose interaction of state education agencies that regulate programs and certify teachers, higher education institutions that prepare teachers, and school districts that hire teachers. For decades, this loose confederation prepared, certified, and hired teachers without one institution unduly influencing the practices of the others. Recently, this dynamic has begun to change. For example, in some states large urban districts have instituted their own ATCPs or have partnered with organizations outside mainstream higher education to recruit and train teachers (Kwiatkowski, 1999). Overall, ATCPs remain overwhelmingly situated in universities of higher education. Regardless of where they sit, ATCPs have changed the landscape of teacher preparation by creating new avenues to teaching.

The proliferation of ATCPs has been accelerated by the federal No Child Left Behind Act (2002) that requires all teachers in core subjects be highly qualified by the end of the 2005–2006 school year. Furthermore, the US Department of Education (Secretary's Report, 2002) has supported ATCPs as a way to lower barriers to teaching certification for non-traditional teachers (i.e., experienced professionals with subject relevant backgrounds) (Hess, Rotherham, & Walsh, 2004).

The Missouri Context

Teacher supply and demand. According to the most recent supply and demand analysis for mathematics and science teachers in Missouri, the state's preparation programs meet only 25% of the state's demand for new secondary mathematics and science teachers (Building Engineering and Science Talent, 2006). The shortfall is resolved by hiring teachers with emergency certifications, hiring teachers from other states, or assigning existing teachers to teach outside their certification area. The fact that approximately one-third of newly certified teachers do not enter teaching and up to 40 percent of Missouri's new teachers leave the profession in their first three years (Scribner, Bickford, & Heinen, 2003) further limits the supply of mathematics and science teachers in Missouri.

The evolution of ATCPs in Missouri. In 1998, Missouri created the Missouri Standards for Teacher Education Programs (MoSTEP) which the state's teacher preparation programs, including ATCPs, must meet. MoSTEP provided overarching guidelines that approved teacher preparation programs must follow (Missouri Department of Elementary and Secondary Education, n.d. a). MoSTEP also requires that teachers pass the Praxis exit exam prior to certification, including the Praxis' subject matter and pedagogy portions.

In addition to MoSTEP, in 2000 Missouri introduced Department of Elementary and Secondary Education (DESE) regulation 80-805.030 (Innovative and Alternative Professional Education Programs) to specifically regulate ATCPs and other innovative programs (Missouri Department of Education, n.d., b). Based on information obtained through interviews, state officials explained that regulations were minimal to allow program administrators some room to innovate. State officials were not experts about how ATCPs *should* work, and did not have adequate state-level resources to oversee and evaluate ATCPs.

This regulation defined ATCPs as "a program for the preparation of professional school personnel that provides a curriculum for post-baccalaureate degree candidates without professional

education preparation to enable them to meet the requirement for state certification” (Missouri Department of Secondary and Elementary Education, no date, a) Furthermore, regulations state that alternative teacher certification in Missouri is for certification of secondary education teachers only. Finally, it is important to note that Missouri’s regulation explicitly required that ATCPs be delivered through an institution of higher education. As a result, ATCPs in Missouri are not offered through other entities such as school districts; however, university partnerships with school districts and/or non-profit organizations are permitted.

Regulations also stipulate requirements for individuals eligible for alternative teacher certification in Missouri. ATCP teacher candidates must have earned a bachelor’s degree or higher in a field related to the desired certification area. Furthermore, teacher candidates are required to have earned a minimum GPA of 2.5 (out of 4.0) both cumulatively and in their major. In a departure from regulations guiding traditional routes to certification, individuals in ATCPs are candidates for certification (2-year provisional certification until program completion) upon admission into their ATCP. Finally, regulations stipulate that individuals in ATCPs are assigned a mentor by their school district in the same subject and approximately the same grade, receive additional assistance as determined by the ATCP, participate in school district professional development, and participate in the employing district’s Performance-Based Teacher Evaluation program (Missouri Department of Education, n.d., b).

Bureaucratic Discretion and Variability among Programs

Each program’s purpose, structure, and processes were shaped in part by the decisions program coordinators made in response to local, state, and even national policy contexts. We used bureaucratic discretion theory to explore how these programs took shape in different ways in one state. Bureaucratic discretion theory suggests that the decisions of program deliverers are bounded and shaped by external forces (e.g., political, economic, or social) that determine the extent of discretion available to decision-makers. Bureaucratic discretion theory serves as a useful lens to study variation among ATCPs precisely because ATCPs have become an explicit strategy to address teacher shortages as elected officials and program administrators respond to school district pressure to increase the number of teacher candidates. In addition, by using bureaucratic discretion as a conceptual lens we are able to acknowledge the heterogeneity of ATCPs, understand why this difference exists, and open avenues for discussion regarding the relative effectiveness of ATCP policy at the state level, and program structure and process at the program level.

Bureaucratic Discretion: The Space between the Rules

Discretion refers to the degree to which choice is available to those responsible for program implementation. As Handler (1986) noted, while bureaucratic discretion is “ubiquitous and difficult to define [it] involves the existence of choice, as contrasted with decisions purportedly being dictated by rules” (p. 331). Thus, discretion is exercised through the interpretation of policy implementers (Keiser, 2001)—i.e., how rules and regulations are interpreted and carried out. The degree of latitude made available to those who implement policy is contingent on the explicitness of rules and regulations promulgated by the governing agency and the capacity of said agency to enforce the rules and regulations (Hummel, 1987). Hawkins (1986) described the extent to which those responsible for implementing programs and policy have discretion to interpret policy as the “space between rules” (p. 11; see also Keiser, 2001).

Extant literature on bureaucratic discretion suggests that policy makers often go to great lengths to control agency behavior and thus discretionary latitude. If policymakers trust an agency, they tend to delegate broadly. When trust wanes policymakers write restrictive and prescriptive mandates in an attempt to control discretion at the implementation level (Huber, Shipan, & Pfahler, 2001). This study challenges this assumption by suggesting that environments permissive of broad ATCP discretion may have less to do with policymakers' trust in these organizations and more to do with trust in competitive and market forces driven by the needs of school district superintendents. Findings from this study underscore the lack of a uniform process for policy implementation based on standardized goals and objectives. Instead, policymakers acted on salient issues (e.g., enrollment increases, teacher shortages) as they arose in the policymaking context.

Bureaucratic Discretion and the Street-level Bureaucrat

First, it is important to note that discretion is inherently *neutral*. That is, the degree to which government agents act on their own is neither inherently good nor bad. Instead, this paper explores the effects of discretionary behavior on program implementation. The limited regulation of ATCPs in Missouri provides an interesting case for exploring how this policy context influences program development and implementation. Our study was also informed conceptually by literature on the street level bureaucrat to understand how program stakeholders exercise discretionary authority (Lipsky, 1980) as they operate in the "space between the rules." Lipsky's notion of *street-level bureaucrats* extends the concept of bureaucratic discretion into the realm of those persons "interacting directly with citizens in the course of their jobs" (1980, p. 3).

The amount of the street level bureaucrat's discretionary authority determines the extent to which he or she can interpret organizational goals and direction as they enact the organization's mission through decision-making. According to Lipsky (1980), as the street level bureaucrat's discretion is limited feelings of alienation may increase. However, as Lipsky also points out, the dynamism of environments in which organizations operate also dictates the amount of discretion street level bureaucrats can exercise. Dynamic environments that cannot be reduced to prescribed formats, or standard operating procedures, provide more space for street level bureaucrats to wield discretion (Lipsky, 1980).

Street level bureaucrats struggle in this opaque world as they interpret and implement policies within their unique contexts, while also attempting to ensure fidelity of implementation. However, these roles of policy formulation, implementation, and oversight are challenged in a variety of ways. Most notably, bureaucracies are ill-suited for dealing with the nuances of distinct cases. As a result, bureaucracies balance tensions created by demands to standardize procedures, to be proficient (producing a high-quality, sustainable teaching force), and to be efficient (accelerating the rate of teacher training) with their operations (Hammond & Miller, 1985).

In response to these tensions, bureaucracies typically attempt to maximize efficiency of service delivery by controlling the ways in which agents exercise discretion through training, socialization, and routine-making (Feldman, 1986). Bureaucratic organizations attempt to clearly define the nature of work, develop performance measures, and utilize mechanisms for rewards and sanctions (Hammond & Miller, 1985). However, as decision-making becomes decentralized—and points of service are increased—bureaucratic expertise shifts from the centralized core to the decentralized satellites of the bureaucratic chain of command (West, 1975). For better or worse, decentralization lessens the static nature of bureaucracies and opens the system to pressure from clientele groups (West, 1975). While opening bureaucracies to external pressure can increase their responsiveness to client needs, it can also lead to *agency capture* by the most powerful client groups.

The case of ATCPs in Missouri offers an ideal platform to explore how discretion leads to program variety.

Design and Method

We employed a multiple-case study design and focused on five ATCPs from the sixteen universities with ATCPs in the state (Yin, 1994; Stake, 1994). Yin (1994) argues that multiple case designs are useful because they allow the researcher to explore patterns across cases, which inform or are informed by theory. Thus, while findings from a case study(ies) may not be generalizable *per se*, the bounded nature of case studies allows researchers to make claims applicable to the case(s) studied (Yin, 1994, Hamel, Dufour, & Fortin, 1993) This study represents a subset of findings from a larger longitudinal study of alternative certification policy and practice for secondary mathematics and science teachers in Missouri. Case studies were selected purposively (Erlandson, Skipper, & Allen, 1993) to include programs that prepared approximately 80 percent of alternatively certified mathematics and science teachers. According to Missouri's Department of Elementary and Secondary Education (DESE) administrative files, in 2003–2004, 122 newly certified mathematics and science teachers flowed from Missouri's schools and colleges of education to Missouri's public schools. Based on DESE's data estimates of annual hiring needs for mathematics and science teachers are 270 and 262 respectively. As Table 1 indicates, ATCPs prepared between 11 and 79 mathematics and science *aspiring* teachers during the 2003–2004 academic year for a total of 151 teachers.

Of the 18 ATCPs preparing teachers in Missouri in 2003–2004, 12 were preparing six or fewer mathematics and science teachers. One private university was preparing about 16 mathematics and science teachers, but that university's border location led the majority of those teachers to teach or plan to teach in another state. In addition, the cases in this study represented a diversity of contexts. As Table 1 shows, two programs served two large urban districts; two programs served a large number of mostly rural districts; and one program prepared solely mathematics and science teachers for employment in primarily suburban and rural districts. In addition, the cases chosen also represent different instructional and structural models, including cohorts, non cohorts, and partnerships.

Table 1
Salient Characteristics of Alternative Teacher Certification Programs

Program	Districts	Math & Science Teachers, 2003–04	Location	Funding x	Program Structures & Features
A	≈100	18	Rural	Tuition	<ul style="list-style-type: none"> • Some integration with other existing program courses • Certification only • Field-based adjuncts • Unsequenced curriculum
B	1	11	Urban	Local foundation and DESE	<ul style="list-style-type: none"> • Cohort • Certification and Masters degree options • University faculty • Sequenced curriculum
C	≈10	43	Suburban and rural	Federal grant	<ul style="list-style-type: none"> • Cohort • Certification and Masters degree options • University faculty • Sequenced curriculum
D	≈50	79	Predominantly rural	Tuition	<ul style="list-style-type: none"> • Semi-structured cohort (some coursework shared with other certification routes) • Certification and/or Masters degree • Mostly university faculty • Partially sequenced curriculum
E	1	13	Urban	Local foundation and DESE	<ul style="list-style-type: none"> • Semi-structured cohort (some coursework shared with other certification routes) • Certification and Masters degree options • Mostly university faculty • Partially sequenced curriculum

Data Collection, Participants, and Analysis

We used qualitative methods to investigate the role of bureaucratic discretion in our ATCP cases. The primary data collection method was interviewing; however, documents (e.g., program documents and syllabi) and observations of classroom preparation also served as data sources. We employed a snowball approach to participant selection in order to increase the sphere of potential stakeholders we interviewed who made critical decisions regarding ATCPs at each university. It is difficult to know in advance who actually makes programmatic decisions. We began our research at each site by interviewing deans to gain entrée and to determine where to begin our investigation. In each case, deans directed us to ATCP program coordinators to begin our investigations. In all cases, ATCP coordinators also encouraged us to interview instructors. In one case, we interviewed a college's certification officer on the suggestion of the program coordinator. In all, six ATCP coordinators (one site had two coordinators), 15 instructors, one college certification office, and three state education officials who oversaw alternative teacher certification and teacher quality were interviewed. Instructors interviewed were either mathematics or science education instructors, but three instructors taught topics such as educational foundations or classroom management. The state education officials were interviewed to understand the teacher certification policy and the regulations guiding ATCPs.

Interviews were semi-structured and open-ended to encourage spontaneity and free flowing thought. Interviews lasted 30–60 minutes. All ATCP coordinators were interviewed at least twice. Follow-up interviews usually focused on clarifying information already gathered. All interviews with coordinators, instructors, and teacher candidates were conducted on-site and were tape-recorded. Interviews with state agency officials were conducted on-site and were not tape-recorded. In addition to interviews, observations of instruction were conducted to better understand the nature of teachers' preparation experiences. At four sites, initial summer courses and coursework during the academic year were observed to understand the nature and content of material delivered to teachers. At one case study site, most courses were taught via the internet. In those cases content was reviewed on-line. Twenty-six class sessions across the programs were observed.

Documents gathered from the sites and from the state agency were used to verify factual knowledge, explore espoused program logics, and to inform questions asked during interviews (Yin, 1994). Documents were especially helpful in understanding program designs, philosophies, and goals. State-level policy documents were analyzed to understand formal regulations that govern ATCPs. Analysis of data was supported by qualitative analysis software (NVivo) to help facilitate thematic development and theorizing. Data were analyzed using the constant comparative method to “generate theory by using explicit coding and analytic procedures” (Glaser & Strauss, 1967, p. 102). The constant comparative method consisted of categorizing data and reducing data into themes that enabled theorizing around our central concepts (Glaser & Strauss, 1967). Data were categorized by applying techniques of *open* and *axial coding* (Strauss & Corbin, 1990). Open coding was used to categorize data and to elicit questions from the data; axial coding was used to make connections across categories and to develop theory (Strauss & Corbin, 1990).

Results

In this section we present two principal findings. First, we present data on the policy context and other external forces that influenced program discretion; second, we explore how ATCP

coordinators responded to these forces as they exercised discretion in different ways and to different degrees that resulted in substantial program variation.

Bureaucratic discretion is a tricky concept. Stakeholders' discretion to make decisions can be fostered or curtailed by myriad factors. In addition, discretion (or lack thereof) is neither inherently positive nor negative. As we will show below, ATCP coordinators made sense of and responded differently to an ambiguous alternative certification policy and accompanying regulations in different ways. Their experiences with external environment pressures also differed. As a result of these factors that influenced discretion, programs developed and implemented ATCPs that varied in significant ways.

Determinants of Discretion

Making sense of the “space between the rules.” As we described above, the state of Missouri—like other states—originally adopted alternative teacher certification policy to address teacher shortages. With the onset of NCLB, alternative certification also became a strategy to increase the number of *highly qualified teachers* by increasing the percentage of certified teachers teaching in their subject area. State certification officials acknowledged that Missouri adopted broad regulations in an attempt to foster creativity, innovation, and timely development of programs. However while this *space between the rules* created potential for programs to exercise broad discretion, the decisions made within this space varied in interesting ways.

Our data suggest that because Programs B, C, and E were newly conceived and extraordinary for Missouri, coordinators sought more state guidance during program development and early implementation phases. In particular, these three cases responded directly to a call for proposals by the state agency for new models of program delivery, thus inviting higher levels of oversight from the beginning. In these cases, program coordinators sought oversight as they developed and implemented their novel programs in order to ensure that program practices would not be challenged later by stated officials. Program E's coordinator commented:

We had to get special permission from the state for our program to provide the Masters [degree] as well as the certification and we had to submit coursework. I would say that the state expectations and guidelines have been very instrumental...and we try to follow them.

However, complicating this program-state relationship was the ambiguity of the oversight when coordinators sought guidance. One program coordinator called it the “we'll know it when we see it” syndrome when referring to guidance received from the state. As a result, while these programs with their novel partnership structures and instructional delivery models were careful to practice within the confines of their written program design, they grew accustomed to a general *laissez faire* approach to state oversight. For instance, Program B's coordinator indicated that over time her communication with the state agency increasingly focused on administrative details. Likewise, the Program C coordinator described how her interactions with state agency officials were “front loaded” at program outset.

In practice, what discretion these program coordinators exercised was within the confines of their clearly defined program missions, such as “preparing alternatively certified science and mathematics teachers” or “preparing teachers for the urban school environment.” Programs B, C, and E's deliberate focus on their well-defined missions was also shared by multiple stakeholders (e.g., coordinators and instructors) involved in curriculum development and delivery. For example, Program C faculty were able to describe their program in similar terms, and all faculty interviewed

had a shared understanding of the purpose and goals of the program. A Program C coordinator described this process:

As we designed our program, we had to think not only what would the graduate school work with, but what our faculty would work with, and how our certification office would respond. There were all those pieces of the puzzle, as well trying to figure out what we believe about teacher education.

On the other hand, the case study programs that developed their ATCPs more explicitly on the chassis of existing teacher preparation programs perceived less oversight from the state education agency. Notably, Programs A and D delivered at least some ATCP programming via existing undergraduate or master's courses. Program documentation supported the fact that in many cases ATCP teachers in these two programs not only received the same coursework content but in some cases attended the same classes as aspiring teachers in other preparation tracks. While reasons for the different nature of state-program interactions are difficult to unequivocally discern, coordinators suggested that the structural familiarity of Programs A and D would have reduced the perception that they were creating new programs and thus reduced the perceived need for state oversight.

Regardless of the program stakeholders' perceptions of state oversight, each of the ATCP coordinators agreed that it was difficult to know if their programs always aligned with state regulations. Coordinators believed that most inconsistencies and disconnects between their programs and the state's intentions for the programs were due to at least three factors. First, broad state regulations allowed for a wide berth of interpretation at the program level. Second, the state's lack of ongoing oversight and guidance created a situation in which ATCPs flourished around the state but did not benefit from systematic communication and coordination. As one program coordinator put it, "programs around the state were reinventing the wheel" as a result of lack of communication among programs and the state. And third, the state generally responded reactively to program coordinators' questions but tended to respond proactively with new programs, particularly in the early stages. A Program C coordinator commented:

We had a lot of struggles internally with interpreting the policy. Policies [are] interpretable on many levels and there certainly were conflicts about how we interpret the policy . . . There's policies on paper and then there's stuff that's in people's heads about the interpretation of those policies or that traditional practice that come out of these policies, and they are not the same.

Along this same vein, a Program B coordinator described the gap between state level policymakers and the realities of program implementation:

There aren't even standards. How would they know if you're a program? For one thing, it is all a document game. I give them documents that say we're going to cover all the standards in 33 hours. And they are sitting down to a meeting with five PhDs who can talk the talk and how do they have time to go and find out?

State agency officials agreed that consensus on what ATCPs should look like did not exist, nor was there agreement about how they should function. As a result, officials informally gave discretion to program directors and coordinators to develop programs as they saw fit. Data illustrate the give and take between state officials and program personnel. Below we show how other factors influenced discretion and ultimately program variation.

Leveraging discretion from the bottom up. Program coordinator's choices regarding how proactively they worked with school district superintendents and brokered school district needs with the Department of Elementary and Secondary Education (DESE) also contributed to the level of discretion coordinators exercised. Unlike the case study ATCPs that served fewer school districts, Programs A and D proactively served as agents for superintendents of Missouri's numerous and

sometimes far-flung rural districts. As state officials acknowledged, DESE's regulatory function was less important in practice than its mission of meeting the needs of school districts. This organizational stance further facilitated the provider-client relationships between Programs A and D and school districts they served. Program A's coordinator described the relationship with the state agency as his program met school district needs:

A lot of the communication [with the state education agency] is informal. I'll give you an example. I'm up there chatting with the state official and he said, "Oh by the way, you may not realize this, but I know you have a lot of [alternative certification teachers] down there in business ed....They kind of flow down to seventh and eighth grade and we probably won't worry about it." I said, "So you're telling me that I can go ahead and run an academic contract, and that I can go ahead and run [alternative teacher certification] down to the middle school?" He said, "Yeah go ahead and do that." So there's nothing in writing. Not a damn thing. But we've been doing that. A lot of that.

Of the five case studies, Program A exercised the most discretion when negotiating with the state education agency to meet the employment needs of school districts. Program A served a large, mostly rural, geographic area in which schools had difficulties filling teaching vacancies. As such, school districts actively engaged Program A's coordinator to expedite the certification process and passed along these concerns to state officials. The result was a symbiotic relationship in which Program A focused on certifying teachers (as opposed to post baccalaureate degrees, instructional cohorts etc.) and responding to districts needs on a case by case basis. Program A's coordinator described the situation:

Superintendents and principals come to us. They had holes they couldn't fill. That's one problem endemic to this area. So it's been the demand from the superintendents and the principals for help, not the state agency. So it was that kind of demand that drove it.

To respond to this demand, Program A's coordinator devised methods to increase the program's ability to respond quickly to teacher shortages. For example, in addition to preparing teachers within the ATCP regulatory framework described earlier (e.g., 2.5 GPA, bachelor's degree in a related area, etc.), Program A's coordinator created a side route to alternative certification for teachers who did not meet those minimum criteria. Program A's coordinator described this process:

At one point early in the fall, we had over 350 students in the program. Now they're [teachers] not all even officially alternative certification... for lack of a better term we call them advisees... [W]hat happens is they'll actually get in, and they're usually lacking a subject area... We let them take some of the initial courses that are in the alt-cert sequence versus our normal undergraduate. Sure, why not? What am I going to do, turn tuition away?

Unlike the more tightly coupled structures and missions of Programs B, C, and E, the responsiveness of Program A to school district needs resulted in a more fluid program but with less shared understanding between the program coordinator and instructors. One interview with a Program A instructor illustrates the resulting gap:

Interviewer: Are there any overarching goals that you try to stick to?

Respondent: No.

Interviewer: Because there aren't any? Do they exist formally and aren't operationalized?

Respondent: I am sure they exist formally. But, well, actually, I shouldn't say that. I'm not even sure they exist formally.

Interviewer: So the alt cert instructors don't have any sense of . . . [respondent cuts off interviewer]

Respondent. . . .The alt cert people never get together.

These data suggest that within the Missouri context of limited regulations, program coordinators who chose to respond directly to district needs exercised considerable discretionary authority. As our data will show below, those programs who worked closely with external partners narrowed their own discretionary authority, particularly in central aspects of teacher preparation.

External partnerships and program discretion. While Programs A and D partnered informally with school districts, Programs B and E partnered formally with one large urban school district and third party organizations with a variety of significant roles. Program C did not have a formal partner as such; however, Program C received federal funding to implement a program with specific goals—i.e., the preparation and placement of secondary mathematics and science teachers in Missouri's public schools.

Working with a small number of school districts increased accountability to partner school districts and decreased overall program discretion. In programs that served a larger number of school districts, accountability was distributed across partner districts, and ATCPs had access to many partner school districts for teacher placements. In effect, their risk was spread across many districts and the power relations were more equal or in favor of the programs. These programs could afford to have a poor relationship with a particular school and did not have to sacrifice time and resources on non-productive relationships. Program D's coordinator explained:

We work with a lot of neighboring schools and districts, and it gives us flexibility in terms of placements. We have a closer working relationship with some, but we try to work with as many we can. And some of them are very different from one another. We have a lot of access.

Generally, formal partnerships increased accountability of the program to external entities and reduced the program's level of discretion. Discretion was curtailed for these programs in terms of teacher placement and mentoring situations. Where program funding was provided in part or completely by local philanthropic organizations, the input on program decisions such as recruitment, admittance, and job placement were not under the sole purview of ATCP coordinators or instructors. Tension was palpable in Programs B and E in which external partners provided significant funding and influenced key areas for decision-making. For example, while Program E personnel expressed concern for preparing teachers in the areas of pedagogy, content knowledge, and classroom management, the coordinator believed that external partners were more concerned about placing teachers in schools quickly.

Similar sentiments were expressed at Program B where program and partner goals were not closely aligned. Program B had long-term goals to train teachers who would stay in the field for a significant period of time. According to Program B's coordinator, however, the school district partner used these teachers to fill difficult positions in schools with the greatest need. The result was a significant drain on the program, in addition to raising concerns about long-term sustainability and impact. A Program B coordinator stated:

One of the problems we've had is that we want to find our career transition folks what we would consider to be better placements. [The district] doesn't. And you have to understand these schools. They put some of our people into some of the roughest, most dead-end schools where the faculty is already burned out. It's just a bad place, and it is the kind of place that loses first-year teachers each year and we didn't want that.

In short, the number of districts served and the presence or absence of external partners appeared to influence program discretion. In rural areas, programs A and D actively served large

numbers of small rural districts, districts that had few other teacher suppliers. The dependence of so many districts on their programs may have cultivated a service approach towards their relationship with these districts. On the other hand, in cases where formal partnerships existed, the discretion and input of professional educators' on important decisions regarding recruitment, selection, and placement was limited.

Program Responses to Varying Levels of Discretion

The previous sections shed light on how ATCP decision-makers made sense of their discretionary authority in relation to external factors such as state oversight, school district pressure, and formal partnerships. In this section we explore how these perceptions may have led to different programmatic responses and perceived challenges. These responses influenced program structure and process decisions such as numbers of students admitted, standards for admittance, and modes of instructional delivery. In addition, programs with less perceived discretion seemed to struggle with the tension between delivering an accelerated curriculum and meeting the learning needs of the teachers more than the programs that responded to the needs of many districts.

With higher levels of perceived discretion, programs A and D used the most open admissions standards and program choices. For instance, these programs' coordinators made choices that ensured the utmost responsiveness to key constituents in their external environment. Choices made included accepting students based on the minimum requirements of a 2.5 GPA in a bachelor's degree and a forgiving interpretation of the relatedness of past experience to either science or mathematics than programs with less perceived discretion. While Programs A and D did not actively recruit teachers, they prepared the most alternatively certified teachers (see Table 1). In Program A the coordinator accommodated as many prospective teachers as possible. For example, as we showed above Program A teachers who did not meet minimum coursework for alternative certification were allowed in the program unofficially while they completed their prerequisites.

These programs also exercised flexibility in the options available to teachers to earn their alternative certification. Although Program A only offered certification, the program coordinator delivered a flexible and individualized curriculum in order to attract teachers into the program and move teachers into the field as quickly as possible. Program A teachers were often paired with adjuncts such as principals to address a required topic for course credit. Program A's coordinator explained that separating alternative certification from degree programs afforded him the utmost flexibility in responding to district needs. On the other hand, Program D ensured flexibility by combining aspiring teachers from various tracks in some of the same preparation courses. For example, we observed courses focused on child development and learning theory in which both alternative certification teachers and undergraduate education majors were in attendance. In other cases, alternative certification teachers attended classes with masters students. Ultimately, Programs A and D succeeded in recruiting large numbers of students in spite of their location in low density population areas. As Program D's coordinator described, "we have to de-recruit because we can't accommodate all the potential teachers interested in alt cert." In short, Programs A and D were designed to accommodate many teachers quickly, while other programs planned around a central cohort that moved through the program uniformly.

In contrast, Programs B, C, and E structured their programs differently in response to perceived state oversight and influences from external partners and funders. As one coordinator said, "By being innovative, by using cohorts, by interfacing with local philanthropic organizations, and by working closely with troubled urban school districts, we invite oversight [by the state and partners]." Programs B, C, and E also delivered program content in more tightly structured formats

than the other programs. For example, programs B, C, and E grouped teacher candidates in cohorts to deliver their program. As a result, teacher candidates received content together and in planned sequence. These programs actively recruited students with backgrounds or interests relevant to the subject areas and contexts in which they would teach. For instance, Program B and E's teacher candidates were recruited by partner organizations across multiple subject areas. However, teacher candidates were sought who had a desire to teach in the urban context. On the other hand, Program C's external funding included support for recruitment which they used to recruit solely mathematics and science teachers using radio advertisements, highway billboards, websites, as well as more traditional forms of recruitment. A Program C coordinator described this:

With recruiting we are working with the Human Services director at the local school district. We've been trying to reach people who are coming right out of college with bachelors in math or science. We've contacted the placement offices in the colleges around Missouri. We even went to a couple of county job fairs.

Programs that coupled certification and a master's degree described more pointedly the struggle to offer both advanced curriculum and high quality learning experiences to alternative certification teachers, rather than simply addressing district needs or partner wants as quickly as possible. A Program C Instructor described this philosophy:

The issue was, "How do I create a course that will help students who historically are very content-centered and help them become more student-centered?" One of the ongoing dichotomies in virtually every college of education are those people who are student-focused and those who are content-focused.

The tension created by accelerating teacher preparation while focusing on program quality was a challenge for all programs. In some cases, the rhetoric of program quality juxtaposed with observation and interview data suggested program quality was in danger of being merely an espoused value. Reviews of syllabi and coordinator, instructor, and teacher interviews suggested that teacher coursework focused primarily on survival tactics rather than deeper pedagogical and content learning. For example, a Program B instructor described his approach to teaching and the curriculum:

I met with people that were originally supposed to teach the course and they suggested things that would be good to cover. Which was great, but I didn't set it up that way. I let the students pick which chapters they wanted to cover because they knew what they needed to know more than anyone else . . . and I think they're more invested in it because they got to choose.

While also faced with the same challenges, one program managed to address more than survival tactics to a great extent than the other programs. Observations, interviews and documents all suggest that Program C was designed and implemented in a way that exposed teachers to relevant content knowledge, pedagogical practices and philosophies, and practical classroom management experience. Data would suggest that this success was due to the tight coherence of the program (i.e., cohorts, prescribed sequencing and content of coursework, interface of classroom learning and field experience) and a focus on solely mathematics and science teachers that enabled program instructors to connect all content to teachers' subject areas.

More highly structured programs tended to produce fewer teachers, offered longer periods of training prior to placements, and were held more accountable or were otherwise constrained by partnership arrangements. Lesser degrees of discretion appeared to force programs or their partners to actively recruit teachers to fill these positions. These findings also showed that programs with less perceived discretion acknowledged the tension posed by moving teachers to the field quickly and providing them with the appropriate depth and breadth of preparation needed to succeed. Unfortunately, across most programs, coursework did not focus on teaching as a discipline but

instead emphasized procedures of lesson/unit planning and classroom management. While knowledge and skill related to these matters were indeed vital to a teacher success, the fact was that in the more loosely structured programs the how-to's of teaching were given priority. The integration of pedagogy and content knowledge with the procedural knowledge of teaching was even less evident.

Discussion

Describing catalysts for bureaucratic change, Nelson (1982) explained that high profile events are often responsible for creating the political forces that instigate change in public organizations. In Missouri, the impetus to expand the pipeline of newly minted teachers was spurred by NCLB requirements for highly qualified teachers (i.e., certified teachers, teaching in their area of certification), chronic and acute teacher shortages, and increased skepticism of traditional modes of teacher preparation. One response to these catalysts was to foster discretionary authority among ATCPs in Missouri's colleges and via broad regulations. The bureaucratic tension between efficiency and effectiveness (Hammond & Miller, 1985) is evident in Missouri's ATCP experience. The external pressure to move more teachers to the classroom outweighed most programs' ability to create and implement preparation models capable of providing teachers the breadth and depth of knowledge, skills, and dispositions required of new teachers that extant literature suggests (e.g., Darling-Hammond & Youngs, 2002). This tension recalls West's (1975) assertion that *bureaucratic drift* (Epstein & O'Halloran, 1999) may result from *agency capture* in which clientele groups (e.g., school districts) exert sufficient influence to override intended organizational missions regardless of regulation and oversight (Gailmard, 2002).

Based on five cases studies, we draw several conclusions that we believe are worthy of further consideration and future investigation by researchers and practitioners alike. This multiple case study suggests that broadening the discretionary *space between the rules* may foster new and even innovative practices, but increased discretion may also create conditions for program proliferation in ways that invite external pressures at odds with program missions.

Market-oriented advocates for educational reform argue that education stakeholders are better served when choice is expanded and government regulation is limited. These advocates argue that choice and broad discretion at the *street level* will lead to innovation. Most would agree that fostering and identifying new, different, and effective methods of getting high quality teachers into the class is a laudable goal. Nor does it seem that limiting the discretion of those closest to the action would enhance our ability to alleviate teacher shortages or prepare high quality teachers. However, this study sheds light on how programs within the same policy context, operating under the same state approved program standards, and given the same regulatory latitude respond to their environments in ways that lead to significant and profound program variation. This variation holds the potential for innovation. Yet, it neither guarantees the emergence of innovative program delivery, nor does it inoculate ATCPs from practices that could undercut program quality. The important question explored here (and worthy of continued exploration) is, "What factors constrain or facilitate discretion—i.e., the ability to respond to one's environment in order to pursue program goals—and to what effect?"

The wide variety of programmatic approaches and decisions supported the notion that broad regulations foster program innovation and creativity in the face of vexing problems. However, broad discretionary latitude should not occur at the expense of oversight to ensure high quality preparation. Nor should broad discretion supplant continuous communication between state officials, program coordinators, and school district personnel. Concern should extend beyond

placing teachers in classrooms to include concern for continuous program improvement for the sake of new, non-traditional teachers—many of whom are teaching in our most challenging environments. The state should play a stronger facilitative role in this effort to continuously move toward effective preparation practices. Moving toward open systems of teacher preparation without consideration of what works dooms teachers to more of the same.

On the other hand, new partnerships that bring together ATCPs, school districts, and other outside organizations can provide contexts for programs to address specific district needs. This study showed how most of the program coordinators developed partnerships in one form or another to pursue their alternative certification mission. Programs in the two urban districts were part of formal partnerships in which roles were defined. In practice the urban-serving ATCPs entered into novel program partnerships, yet they abdicated influence over important program aspects such as recruitment and placement.

Programs that were free to react to their clients appeared to develop programs capable of responding to external needs arguably at the expense of consistent, coherent, and integrated preparation for teachers. Bottom-up pressure from school district superintendents with pressing personnel needs may have compromised the quality of teacher training as programs have striven to meet market demands. Programs A and D illustrated this tension well. These programs dutifully responded to the needs of their constituent superintendents who served rural areas with limited pools of potential teachers. As a result of superintendents' pressing needs and the service- and hands-off orientation role of the state education agency, these ATCPs' missions were captured by the market force to provide certified teachers to classroom as expeditiously as possible. While a laudable and rationale goal, one must also question how to ensure quality preparation for these teachers in order that they will serve students well and remain in the field. In short, without some form of oversight to ensure that professionals have the authority to make decisions within their realm of expertise—and that tensions between efficiency and effectiveness are managed—ATCPs are susceptible to compromising one value in attempting to emphasize the other.

This study shows the importance of balancing pressure on programs. On one hand, from the desperate need to fill teaching vacancies in areas that do not attract applicants bottom-up pressure from school districts to ATCPs can spur responsiveness but at the potential expense of quality. On the other hand, top-down pressure from the state education agency on ATCPs should be used to ensure that program responsiveness is not only to school districts but to aspiring teachers and their eventual students as well. The challenge to place teachers in hard to fill positions such as mathematics and science while also providing teachers the foundation necessary to be effective should be at the forefront of all stakeholders vested in the preparation and induction of new public school teachers.

Implications

Even in tightly regulated industries, discretion exists for most organizational decision makers. When considering discretion's influence on ATCPs, one must consider how, why and under what conditions discretion is or is not exercised. Why do programs with similar purposes, operating under the same sets of state and national standards for teacher preparation programs look so different? In this study we attempted to explore these issues in order to inform scholars and practitioners interested in understanding ATCP policy and program implementation. In the future, others may consider this complexity in order to discern differential impacts of various types of ATCPs on important outcomes such as teacher quality and student achievement.

In order for decisions regarding teacher preparation, certification, and licensure to be thoughtfully addressed in the public arena, policymakers should attend to several important issues. First, they should challenge themselves and other stakeholders to make explicit their beliefs on teaching and teacher quality. Questions such as “What content knowledge should alternatively certified teachers possess prior to entering the field?” and “What should their induction and in-service learning experiences look like?” should be answered. Future research should be designed to measure the quality of teachers emerging from these programs in ways that tease out the influence of the variety of alternative certification approaches. Finally, policymakers and educators should consider the long-term goals (i.e., teacher quality and student learning) of alternative teacher certification in the face of more pressing short-term issues (e.g., addressing the teacher shortage).

References

- Bickman, L. (1987). The functions of program theory evaluation. *New Directions for Program Evaluation*, 33, 5–18.
- Bickman, L., & Petersen, K. (1990). Using program theory to describe and measure program quality. *New Directions for Program Evaluation*, 47, 61–72.
- Building Engineering and Science Talent. (2006). Making Missouri a national leader in mathematics, engineering, technology, and science. Jefferson City, MO: Missouri Governor’s Office. Retrieved January 13, 2007, from <http://www.gov.mo.gov/mets/metsleader.pdf>.
- Chen, H. (1990). Issues in constructing program theory. *New Directions for Program Evaluation*, 47, 7–18.
- Darling-Hammond, L., & Youngs, P. (2002). Defining “highly qualified teachers”: What does “scientifically-based” research actually tell us? *Educational Researcher*, 34(9), 13–25.
- Dial, M., & Stevens, C. J. (1993). The context of alternative teacher certification. *Education and Urban Society*, 26(1), 4–17.
- Dill, V. (1996). Alternative teacher certification. In J. Sikula (Ed.), *Handbook of research on teacher education* (2nd ed., pp. 932–957). New York: Macmillan.
- Epstein, D., & O’Halloran, S. (1999). *Delegating powers*. Cambridge, U. K.: Cambridge University Press.
- Erlandson, D. A., Harris, E. L., Skipper, B. L., & Allen, S. D. (1993). *Doing naturalistic inquiry: A guide to methods*. Newbury Park, CA: SAGE.
- Feldman, S. (1986). Social limits to discretion: an organizational perspective. In J. Handler (Ed.), *The conditions of discretion: Autonomy, community, bureaucracy* (pp. 163–183). New York: Russell Sage Foundation.
- Gailmard, S. (2002). Expertise, subversion, and bureaucratic discretion. *Journal of Law, Economic and Organizations*, 18(2), 536–555.

- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative theory*. Hawthorne, NY: Aldine de Gruyter.
- Hamel, J., Dufour, S., & Fortin, D. (1993). *Case study methods*. Newbury Park, CA: Sage Publications.
- Handler, J. (1986). Discretion, power, quiescence, and trust. In J. Handler (Ed.), *The conditions of discretion: Autonomy, community, bureaucracy* (pp. 333–360). New York: Russell Sage Foundation.
- Hassel, B. C., & Shelburne, M. E. (2004). Cultivating success through multiple providers: A new state strategy for improving the quality of preparation. In F. M. Hess, A. J. Rotherham, & K. Walsh (Eds.), *A qualified teacher in every classroom?* (pp. 201–222). Cambridge, MA: Harvard Education Press.
- Hawkins, K. (1986). The use of legal discretion: perspectives from law and social science. J. Handler (Ed.), *The conditions of discretion: Autonomy community, bureaucracy* (pp. 331–360). New York: Russell Sage Foundation.
- Hess, F. M., Rotherham, A. J., & Walsh, K. (Eds.). (2004). *A qualified teacher in every classroom: Appraising old answers and new ideas*. Cambridge, MA: Harvard Education Publishing Group.
- Huber, J. D., Shipan, C. R., & Pfahler, M. (2001). *Legislatures and statutory control of bureaucracy*. *American Journal of Political Science* 45(2), 330–345.
- Hummel, R. P. (1987). *The bureaucratic experience*. New York: St Martin's Press.
- Ingersoll, R. M. (2001). *Teacher turnover, teacher shortages, and the organization of schools*. University of Pennsylvania: Center for the Study of Teaching and Policy.
- Keiser, L. R. (2001). Street-level bureaucrats, administrative power and the manipulation of federal social security disability programs. *State Politics and Policy Quarterly*, 1(2), 144–164.
- Kwiatkowski, M. (1999). Debating alternative teacher certification. A trial by achievement. In M. Kanstoroom & C.E. Finn, Jr. (Eds.), *Better teachers, better schools*. Retrieved May 10, 2005, from <http://www.edexcellence.net/foundation/publication/publication.cfm?id=15>
- Levin, H. (1980). Teacher certification and the economics of information. *Educational Evaluation and Policy Analysis*, 2(4), 5–18.
- Lipsky, M. (1980). *Street-level bureaucracy: Dilemmas of the individual in public services*. New York: Russell Sage Foundation.
- McClintock, C. (1987). Conceptual and action heuristics: tools for the evaluator. *New Directions for Program Evaluation*, 33, 43–58.

- Missouri Department of Secondary and Elementary Education. (n.d., a). Missouri standards for teacher education programs. Retrieved February 7, 2007, from <http://dese.missouri.gov/divteachqual/teached/standards.htm>.
- Missouri Department of Secondary and Elementary Education (n.d., b). *Title 5-Department of Elementary and Secondary Education Division: Teacher Quality and Urban Education, Chapter 805: Educator Preparation*. Retrieved February 7, 2007, from <http://dese.mo.gov/schoollaw/rulesregs/80805030.html>.
- National Center for Education Information (n.d., a). *Alternative teacher certification: A state by state analysis*. Retrieved May 3, 2003, from <http://www.ncei.com>.
- National Center for Education Information (n.d., b). *Alternative teacher certification: An overview*. Retrieved May 2, 2003, from <http://www.ncei.com/alt-teacher-cert.htm>.
- Nelson, M. (1982). A short, ironic history of the American national bureaucracy. *The Journal of Politics*, 44, 747–778.
- No Child Left Behind Act of 2001, Pub. L. No. 107–110 (2002).
- Reichardt, R. (2002). *Alternative teacher education: Trends and implications in policies and practices*. Aurora, CO: Western Interstate Commission for Higher Education.
- Rice, J. K. (2003). *Teacher quality: Understanding the effectiveness of teacher attributes*. Washington, DC: Economic Policy Institute.
- Scribner, J.P., Bickman, A., & Heinen, E.B. (2003). Research on alternative certification. Paper presented at Alternative Certification: Meeting the Challenge in Math and Science Education, Columbia, MO.
- Scribner, J.P., Bickman, A. & Heinen, E. (2003). *Alternate routes to teacher certification in Missouri: Evaluating a policy response to teacher shortages in mathematics and science*. Paper presented at the annual conference for the University Council for Educational Administration (Portland, OR).
- Stake, R. E. (1994). Case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 236–248). Thousand Oaks, CA: SAGE.
- Strauss, A., & Corbin, J. (1990). *Basic of qualitative research: Grounded theory procedure and techniques*. Newbury Park, CA, SAGE.
- U.S. Department of Education. (2005). *Secretary's fourth annual report on teacher quality: A highly qualified teacher in every classroom*. Washington, DC: Author.
- West, W. F. (1995). *Controlling the bureaucracy: Institutional constraints in theory and practice*. New York: M.E. Sharpe.
- Wilson, J. Q. (1975). The rise of the bureaucratic state. *The Public Interest*, 41, 77–103.

Wilson, J. Q. (1989). *Bureaucracy: What government agencies do and why they do it*. New York: Basic Books.

Wilson, S. M., Floden, R. E., & Ferrini-Mundy, J. (2002). Teacher preparation research: An insider's view from the outside. *Journal of Teacher Education*, 53(3), 190–204.

Yin, R. K. (1994). *Case study research: Design and methods*. Thousand Oaks, CA: SAGE.

About the Authors

Ethan B. Heinen

Central Connecticut State University

Jay Paredes Scribner

University of Missouri-Columbia

Email: ethanheinen@hotmail.com

Ethan B. Heinen is a member of the faculty at CCSU in the Department of Educational Leadership and Professional Studies. His research interests include the politics of education, teacher education, and organizational theory. Dr. Heinen received his doctorate from the University of Missouri-Columbia.

Jay Paredes Scribner is an associate professor of Educational Leadership and Policy Analysis and Director of the Hook Center for Educational Leadership and Renewal at the University of Missouri-Columbia. His research focuses on professional learning and preparation of teachers and principals, leadership as an organizational quality, and educational program evaluation.

EDUCATION POLICY ANALYSIS ARCHIVES <http://epaa.asu.edu>

Editor: Sherman Dorn, University of South Florida

Production Assistant: Chris Murrell, Arizona State University

General questions about appropriateness of topics or particular articles may be addressed to the Editor, Sherman Dorn, epaa-editor@shermadorn.com.

Editorial Board

Noga Admon	Jessica Allen
Cheryl Aman	Michael W. Apple
David C. Berliner	Damian Betebenner
Robert Bickel	Robert Bifulco
Anne Black	Henry Braun
Nick Burbules	Marisa Cannata
Casey Cobb	Arnold Danzig
Linda Darling-Hammond	Chad d'Entremont
John Diamond	Amy Garrett Dikkers
Tara Donohue	Gunapala Edirisooriya
Camille Farrington	Gustavo Fischman
Chris Frey	Richard Garlikov
Misty Ginicola	Gene V Glass
Harvey Goldstein	Jake Gross
Hee Kyung Hong	Aimee Howley
Craig B. Howley	William Hunter
Jaekyung Lee	Benjamin Levin
Jennifer Lloyd	Sarah Lubienski
Susan Maller	Les McLean
Roslyn Arlin Mickelson	Heinrich Mintrop
Shereeza Mohammed	Michele Moses
Sharon L. Nichols	Sean Reardon
A.G. Rud	Lorrie Shepard
Ben Superfine	Cally Waite
John Weathers	Kevin Welner
Ed Wiley	Terrence G. Wiley
Kyo Yamashiro	Stuart Yeh

Archivos Analíticos de Políticas Educativas <http://epaa.asu.edu>

Editores

Gustavo E. Fischman Arizona State University

Pablo Gentili Universidade do Estado do Rio de Janeiro

Asistentes editoriales: Rafael O. Serrano (ASU) & Lucia Terra (UBC)

Hugo Aboites

UAM-Xochimilco, México

Claudio Almonacid Avila

UMCE, Chile

Alejandra Birgin

FLACSO-UBA, Argentina

Mariano Fernández Enguita

Universidad de Salamanca. España

Roberto Leher

UFRJ, Brasil

Pia Lindquist Wong

CSUS, USA

Alma Maldonado

University of Arizona, USA

Imanol Ordorika

IIE-UNAM, México

Miguel A. Pereyra

Universidad de Granada, España

Romualdo Portella de Oliveira

Universidade de São Paulo, Brasil

José Ignacio Rivas Flores

Universidad de Málaga, España

José Gimeno Sacristán

Universidad de Valencia, España

Susan Street

CIESAS Occidente, México

Daniel Suárez

LPP-UBA, Argentina

Jurjo Torres Santomé

Universidad de la Coruña, España

Armando Alcántara Santuario

CESU, México

Dalila Andrade de Oliveira

UFMG, Brasil

Sigfredo Chiroque

IPP, Perú

Gaudêncio Frigotto

UERJ, Brasil

Nilma Lino Gomes

UFMG, Brasil

María Loreto Egaña

PIIE, Chile

José Felipe Martínez Fernández

UCLA, USA

Vanilda Paiva

UERJ, Brasil

Mónica Pini

UNSAM, Argentina

Paula Razquin

UNESCO, Francia

Diana Rhoten

SSRC, USA

Daniel Schugurensky

UT-OISE Canadá

Nelly P. Stromquist

USC, USA

Antonio Teodoro

Universidade Lusófona, Lisboa

Lílian do Valle

UERJ, Brasil