



Article

Assessing unintended administrative burdens of technology: the case of swipe card attendance for child care subsidies

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Abstract

Public child care subsidies are designed to reduce the financial cost of child care for low-income households so that parents can work and/or pursue educational and training opportunities. As is the case with other public services and benefits, families who received child care subsidies may experience administrative burdens or costs when accessing and utilizing them. Moreover, child care providers, as third-party service providers, may also experience challenges in interacting with the state and complying with program rules. While present in many areas, administrative burdens tend to be more relevant in programs serving low-income families, as the eligibility criteria and participation procedures are complex. Technology is often seen as a solution to address complexity and minimize burdens, but just as with other interventions, its success is not guaranteed. This paper focuses on one particular technological mechanism: the use of swipe cards to record attendance for child care subsidies, and uses New Jersey as a case study. Our research question asks: How does using swipe cards alleviate or exacerbate administrative burdens in the child care subsidy system? Our inquiry goes beyond understanding the experience of the parents, or program beneficiaries, to also investigate the experiences of the providers, or third-party service providers, gathering insights and perspectives from various stakeholders. Based on in-depth focus groups and interviews with child care providers, parents and guardians, public agency staff, and advocates from select New Jersey nonprofit groups (n=90), we find that although implemented to ease compliance costs, the implementation and use of swipe cards failed to reduce them and introduced psychological costs.

Keywords: administrative burdens, child care subsidies, public policy implementation, welfare programs, qualitative methods

of the Department or Division or any of our partners. Any omissions or errors are the sole responsibility of the authors.

Availability of data and material

Not applicable.

Authors' contributions

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Introduction

Administrative burdens are costly experiences individuals face when accessing and utilizing public services and benefits (Burden et al., 2012). While present in many areas, these burdens are more relevant in programs serving low-income families, as the program designs present complex eligibility criteria and participation procedures (Fox et al., 2020). Related research indicates that other actors, such as service providers, have unique perspectives on how burdens are embedded into public programs and how these actors themselves are also affected by administrative burdens (Barnes & Henly, 2018; Burden et al., 2012). Studying administrative burdens contributes to our understanding of the policies and programs from an equity perspective, particularly how negative citizen-state interactions hinder policy efficacy (Moynihan et al., 2016).

Despite a rapidly growing body of research related to administrative burdens, gaps in knowledge exist in regards to the effects of program-specific procedures and rules on program access and benefit recipients (Barnes & Henly, 2018; Heinrich & Brill, 2015; Jenkins & Nguyen, 2022). This lack of understanding can lead to profound equity implications (Moynihan & Herd, 2010). More recent scholarship on administrative burdens (Baekgaard & Tankink, 2022; Barnes & Riel, 2022; Halling & Baekgaard, 2023) has called for more qualitative research incorporating participant voice and experience to address this gap in the literature. Research on child care subsidies is moving in this direction and includes studies that have looked at administrative burdens through the perspective of service providers (Giapponi Schneider et al., 2017, 2021; Murrin, 2019; Slicker & Hustedt, 2022) as well as parents (Barnes & Henly, 2018). However, far fewer studies have approached the topic gathering and integrating perspectives from multiple stakeholders (Jenkins & Nguyen, 2022; Washington & Reed, 2008), an approach we argue is critical for gaining a deep understanding of challenges and potential solutions.

Access to affordable child care services has critical implications for households' finances, particularly for low- and moderate-income families. This study examines the administrative burdens associated with a particular aspect of this program in New Jersey, the use of swipe cards for attendance keeping, reporting, and subsidy payments, from the perspective of a diverse group of stakeholders. The State of New Jersey pays child care subsidies directly to child care providers. Starting in 2012, the State developed and implemented a technology to secure an accurate attendance registry: program participants had to use swipe cards daily. However, in response to the COVID-19 pandemic and related executive public health directives, the program switched its mechanism and suspended using these swipe cards. When the state of emergency was lifted, instead of automatically reverting to the previous practices, the State embarked on research to understand the options, including an investigation of technological tools and whether they could be simplified.

The focus of this paper is an assessment of the use of swipe cards on the actors directly involved in the swipe card mechanism: parents and guardians, and child care providers. Our specific research question investigates the effects of swipe cards using an administrative burdens framework. Specifically, we are interested in answering the question: How does using swipe cards alleviate or exacerbate administrative burdens in the child care subsidy system? Understanding that a more profound analysis of administrative burdens must consider the insights of various stakeholders

(Barnes, 2021), we include perspectives from public agency staff and child care advocates, along with those of the parents and child care providers who are directly impacted by the system.

Using New Jersey as a case study, we employ a qualitative approach to investigating the perspectives of various stakeholders through in-depth focus groups and interviews. Our study aligns with prior invitations to examine further these interactions along the policy process (Baekgaard & Tankink, 2022; Jakobsen et al., 2019), especially if these analyses reduce the burdens for citizens through the use of technological tools (Peeters & Widlak, 2023). Our findings suggest that, although intended to ease compliance costs, the implementation and use of swipe cards failed to reduce them and introduced psychological costs.

Background

The administrative burden framework

Studying organizational rules and their implications has been a recurring theme in public administration research (Campbell et al., 2023). Recently, administrative burdens, as a research topic, have become of great interest in the discipline (Burden et al., 2012; Moynihan et al., 2015) because it focuses on citizen–state interactions (Baekgaard & Tankink, 2022; Heinrich, 2016). This focus is particularly relevant for studies of means-tested welfare programs, like child care subsidies, as beneficiaries of welfare programs need to navigate a notably complex set of procedures when claiming social benefits (Barnes, 2021). Often, such interactions are perceived to be costly experiences for them (Barnes & Henly, 2018).

Administrative burdens are defined as an individual's *onerous* experience with a public policy or program (Burden et al., 2012; Herd & Moynihan, 2018; Herd et al., 2013; Moynihan et al., 2016). Studying administrative burdens is more than understanding policy rules and regulations because actions and experiences on the frontlines of service delivery, often thought of as related to policy implementation or administration, also matter (Herd & Moynihan, 2018; Moynihan et al., 2015). Understanding how these burdens operate is fundamental because burdens can impede or prevent an individual from accessing services if they cannot overcome the costs or barriers, resulting in policy failure (Barnes & Riel, 2022; Jenkins & Nguyen, 2022; Larsson, 2021; Peeters & Widlak, 2023). In sum, the ultimate objective in understanding these barriers is improving policy uptake (in our case, utilization of child care subsidies) by identifying more simple approaches that help citizens access governmental services (Christensen et al., 2020).

When studying these experiences, Herd & Moynihan (2018) and Moynihan et al. (2015) defined administrative burdens more precisely as a function of three separate costs: 1) learning costs (understanding how the policy works); 2) compliance costs (actions taken to follow the procedure/rule); and 3) psychological costs (shame and feeling of vulnerability that comes when receiving the benefits of the policy). For instance, learning costs can relate to figuring out how to use the benefits (Barnes & Petry, 2021). Compliance costs can be the time wasted in line, completing forms, acquiring and submitting the documentation, or completing the paperwork (Baekgaard et al., 2021). Lastly, psychological costs can be the emotional stress and frustration of facing the process or the feeling of losing autonomy (Baekgaard et al., 2021).

Sometimes, third-party organizations involved in the process, like contracted child care providers in our study, enforce the procedures that could represent burdens (Cook, 2021; van Donge et al., 2022). Moreover, as active players in the delivery of public programs and benefits, contracted service providers are also affected by rules, some of which may be onerous in their own right and could represent another type of burden (Barnes & Henly, 2018; Burden et al., 2012). Thus, including the perspectives of third-party service providers when studying these phenomena is essential (Barnes, 2021; Barnes & Henly, 2018; Halling & Baekgaard, 2023). In our study, contracted service providers were reliant on swipe cards to comply with attendance-taking rules in the child care subsidy program in order to get paid. In this context, provider payment from the state depends on their use and enforcement of swipe cards, making them directly involved as well as impacted by the burdensome experience.

Administrative burdens can also be unintentional (Halling & Baekgaard, 2023; Masood & Azfar Nisar, 2021; Peeters, 2020). Specifically, Peeters (2020) suggested that unintentional burdens are likely associated with limitations in organizational capacity or procedures to secure internal control. Moreover, these unintended burdens do not necessarily imply wrongful motivations by policymakers; instead, they could be designed for government efficiency and effectiveness (Doughty & Baehler, 2020) and to protect the programs from fraud (Halling & Baekgaard, 2023). These originate from a flawed organizational design or practice (Kim, 2021; Peeters, 2020). Our study investigates a change in the administration of the child care subsidy program, the use of swipe cards, motivated by an effort to increase efficiency and thus, is an interesting opportunity to observe unintended consequences of policy decisions.

In our specific study, technological tools, such as swipe cards, can influence administrative burdens by either increasing or decreasing them. In some circumstances, technical malfunctions or the inability to make technological tools accessible to vulnerable groups can increase burdens (Peeters & Widlak, 2018). More specifically, classification systems, which are more common in welfare-related policies, are becoming sources of burdens (Caswell et al., 2010; Wu & Meyer, 2023) and affect implementers' discretion due to their rigidities (Jorna & Wagenaar, 2007; Peeters & Widlak, 2018). Yet, when well-designed, technological tools can reduce administrative burdens. When appropriately used, technology enables governments to absorb the burdens that otherwise will be experienced by citizens (Halling & Baekgaard, 2023; Peeters & Widlak, 2018). More specifically, technological tools that favor procedural simplifications can significantly benefit citizens (Madsen et al., 2022; Peeters, 2020) and facilitate program implementation (Wu & Meyer, 2023).

Administrative burdens in child care subsidy programs

Welfare programs, including child care subsidies, are intended to yield positive effects on those who access these benefits and services by increasing financial security or protecting against material hardship (Compton, 2021). Yet, how these programs are designed and implemented can be burdensome for the beneficiaries (Bruch et al., 2010; Fox et al., 2020; Moynihan & Herd, 2010). An examination of administrative burdens in welfare programs is critical from a policy perspective as such burdens could result in lower take-up of benefits (Barnes & Henly, 2018; Barnes & Petry, 2021; Jenkins & Nguyen, 2022; Lasky-Fink & Linos, 2023), lessening the potential of such programs and

negatively impacting policy outcomes (Jenkins & Nguyen, 2022). In sum, studying administrative burdens in welfare programs is essential because they impact vulnerable groups more heavily (Baekgaard et al., 2021; Eubanks, 2018; Halling & Baekgaard, 2023; Lasky-Fink & Linos, 2023).

Given the means-tested nature and the conditional elements in many welfare programs, procedures and rules are integral in their design. Hence, organizations often develop strict rule-adherence processes to enforce compliance, diminishing program operators' discretion, and potentially resulting in more burdens for program beneficiaries (Fox et al., 2020). Such rules can discourage possible beneficiaries from applying for these services (Barnes & Henly, 2018; Eubanks, 2018), and worse, the policy design can reinforce stigmatizing perceptions of vulnerability among the beneficiaries (Fox et al., 2020; Lasky-Fink & Linos, 2023). For instance, in their book, Herd & Moynihan (2018) described various burdensome experiences in welfare programs such as Medicare, Medicaid, and the Social Security Administration.

Child care subsidy programs, a critical means-tested welfare benefit for low-income working families, are tailored at the state level (Jenkins & Nguyen, 2022). These programs aim to help vulnerable parents maintain employment while their children are cared for in a safe environment (Sandstrom et al., 2015). Prior evidence indicates that low take-up rates of child care subsidy programs (Barnes, 2021; Sandstrom et al., 2015) may be, at least partially, explained by various burdens experienced by beneficiaries (Barnes, 2021; Jenkins & Nguyen, 2022). Thus, lowering the burdens of participating in the program is an essential objective for policymakers (Adams et al., 2002).

Recent studies have illuminated various types of administrative burdens experienced by the beneficiaries of child care subsidies (Barnes, 2021; Jenkins & Nguyen, 2022). First, there are observable learning costs that are related to understanding the eligibility criteria and application process (Barnes, 2021; Jenkins & Nguyen, 2022). Similarly, compliance costs exist in the lengthy and extensive documentation families must constantly certify. Finally, the often stigmatizing and negative encounters with public servants constitute an elevated psychological cost for beneficiaries (Barnes, 2021; Cook, 2021; Jenkins & Nguyen, 2022).

Other research on barriers in child care subsidy programs has looked beyond the experiences of beneficiaries to also investigate other relevant stakeholders (see Jenkins & Nguyen, 2022; Washington & Reed, 2008). For example, child care providers who accept subsidized children have reported challenges with paperwork and program administration requirements (Jenkins & Nguyen, 2022; Murrin, 2019). Some providers describe needing to allocate additional resources to deal with the subsidized program requirements (Jenkins & Nguyen, 2022). Similar to Washington & Reed (2008), our study examines various stakeholders to gain a more comprehensive understanding of the phenomenon. Moreover, unlike previous research on child care subsidies, our study focuses on a particular technological and policy challenge – whether or not the use of swipe cards eases or increases administrative burdens in the child care subsidy program.

The New Jersey child care subsidy system

In the United States, the federal and state governments subsidize child care services for low-income families and work collaboratively on policy formulation around this critical issue. Key implementation decisions often fall to the states (Jenkins & Nguyen, 2022). In New Jersey, in the

Department of Human Services, the Division of Family Development (DFD) administers and manages the child care subsidy program. The State guarantees a subsidy for families currently enrolled in the Temporary Assistance for Needy Families (TANF) program, children in protective services, and children in foster care. Families with children with special needs, families with very low income, and homeless families are given some priority but are not guaranteed a subsidy. To complete the enrollment process, parents or legal guardians must identify an eligible child care provider and apply to participate in a child care subsidy program at the Child Care Resource and Referral Agency (CCR&R) in the county where they reside. If approved, the chosen child care provider will receive bi-weekly payments from the State to cover a portion of the cost of childcare.

Another set of important implementation decisions relates to the subsidy payment mechanism and the processes surrounding issuing those payments. In New Jersey, child care subsidy payments are made directly to contracted service providers, including licensed child care centers, registered family providers, and approved homes. Over the last two decades, the State has used two mechanisms to pay child care subsidies to all types of providers. In 2012, New Jersey switched from an enrollment-based system, where providers were paid based on the number of children enrolled, to an attendance-based system, where providers were paid based on the number of days a child attended (and excused absences) within a given pay period. Thus, accurate attendance was a foundational part of the new process. To ease the burden of the attendance procedure, the State developed and implemented a swipe card procedure, a mechanism used in other states as well. This technology allowed centers to record attendance without cumbersome paper records and considerably eased reporting requirements.

However, in 2020, in response to the COVID-19 pandemic, New Jersey switched back to an enrollment-based subsidy policy for public health purposes and to ensure a consistent stream of income to providers at a time when attendance fluctuated significantly due to (federal and State) COVID mitigation protocols. With this move to an enrollment system, the use of swipe cards was also paused. This shift in subsidy payment mechanism was supported by temporary federal government COVID relief funds, which were set to expire on December 31, 2023. In spring 2023, at the same time that the COVID state of emergency was lifted, instead of automatically reverting to the previous practices, the State embarked on research to understand the options related to the subsidy payments and procedures (Hetling et al., 2023). Our investigation of the use of the swipe cards is a piece of this larger research project and analyzes data from in-depth focus groups and interviews with a diverse group of stakeholders. In these sessions, the issue of swipe cards was a frequently recurring topic. Given the context in which we are studying the swipe card mechanism, introduced in 2012 on child care subsidies in New Jersey and suspended during the COVID-19 pandemic, we expect to observe various compliance and psychological costs and no learning costs, because participants did not discuss the circumstances when they were first introduced to the swipe card mechanism.

Methods

We examined the swipe card mechanism in New Jersey's child care subsidy program through a

qualitative approach, which provides critical insights into the meanings, concepts, and characteristics surrounding the issue under investigation (Creswell & Poth, 2018; Lune & Berg, 2017). Specifically, we conducted interviews and focus groups to capture the experiences and perspectives of various stakeholders concerning the child care subsidy program related to the payment process and of particular interest to our present research question as they relate to the use of swipe cards as an attendance mechanism. In short, these methods help describe specific observations as they occur in context (Nowell & Albrecht, 2019). The University Institutional Review Board approved the research project.

Participant recruitment

The recruitment of study participants relied heavily on purposeful sampling, which means that the main objective is not generalizing the findings but gaining an in-depth understanding of specific cases (Patton, 2015). Moreover, because the stakeholder groups are diverse and have different relationships with the subsidy program, we used different strategies to recruit participants based on their stakeholder group identity. For parents, guardians, child care providers, and public agency staff, we also considered county location a critical element in understanding program experience. Thus, recruitment strategies for these groups prioritized the inclusion of experiences from certain counties, as described below.

Parents and guardians

We selected the three counties with the largest number of subsidy recipients for focus groups with parents and guardians. Flyers were used to recruit participants and distributed through each selected county's CCR&R agency. Parents and legal guardians enrolled in the child care subsidy program were eligible to participate in the study.

Child care providers

Using geospatial analysis to see the distribution of the types of child care providers and other variables (such as poverty level), we selected six counties to conduct virtual focus groups with child care providers. An invitation letter was sent to directors or managers of licensed centers and registered family home providers in these six counties. We organized four initial virtual focus groups: two for center-based providers and two for registered family-based providers. However, due to low participation in these groups, we opened up the groups to all active providers in the state's child care provider data system whose licenses are valid from 2022 to 2025 and who provided an email contact (n=3,035).

Public agency staff and advocates

The selection of potential interviewees representing both public state and county agency staff and advocates began with conversations with the DFD leadership to gain a better understanding of the landscape of child care subsidy policy and its implementation in New Jersey. To increase data reliability, we selected the same counties where we conducted the parents and guardians focus groups to conduct interviews with CCR&R staff. Individual CCR&R staff were selected because of

their experience and expertise in working in the child care field. Child care advocates were selected based on their professional experience, which included their knowledge of the issues and their participation in different networks that connect parents, providers, CCR&Rs, state authorities, and legislative bodies at the State and federal levels. To recruit child care advocates, we implemented a snowball sampling procedure, asking initial interviewees for recommendations of others in the field to be interviewed (Lune & Berg, 2017). Participants were invited to participate by email, and a follow-up email was sent two weeks after the first email in cases of non-responses.

Data collection

We conducted focus groups to identify and understand the perspectives and experiences of parents and guardians, and providers. Focus groups are well suited to these stakeholders because of the method's strength in uncovering group consensus and perspectives. Simultaneously, we interviewed state and county agency staff and child care advocates. Table 1 summarizes the number of participants by data collection method and the length of the sessions. Focus group and interview instruments were semi-structured and included questions about the swipe card mechanism and perspectives on the differences between the payment systems before and during the COVID-19 pandemic, including processes, logistics, and resources. Specific questions were asked about

Table 1. Participants by data collection method

Data collection method	Stakeholder	Number of participants ¹⁾	Length (min) ²⁾
Focus group	Parents and guardians	12	40
Focus group	Parents and guardians	12	42
Focus group	Parents and guardians	6	39
Focus group	Parents and guardians	6 ³⁾	19
Focus group	Child care provider	3	53
Focus group	Child care provider	5	51
Focus group	Child care provider	3	41
Focus group	Child care provider	9	64
Focus group	Child care provider	8	46
Focus group	Child care provider	6	61
Focus group	Child care provider	3	61
Interview	Advocate	1	52
Interview	Advocate	2	56
Interview	Public agency staff	1	49
Interview	Public agency staff	1	58
Interview	Public agency staff	1	51
Interview	Public agency staff	1	80
Interview	Public agency staff	8	54
Interview	Public agency staff	2	56
Total		90	

¹⁾ Participants at the beginning of the session.

²⁾ Recording time. It does not include the consent process review with participants.

³⁾ Bi-lingual English-Spanish focus group. The researcher who led the focus group is a native Spanish speaker (bi-lingual). One participant, who was more comfortable speaking in Spanish, replied in that language while other participants spoke in English. Spanish portions of the transcript were translated into English by the researcher, and subsequent coding was conducted fully in English.

opinions on the strengths or opportunities of the subsidy program, what worked well, what were the limitations or constraints of the program, and what did not work or could be improved. Finally, the data collection process for all interviews and focus groups was led by two researchers and was conducted remotely, either via Zoom or telephone.

Parents and guardians

We conducted four focus groups from September to October 2022 with parents and legal guardians who received a child care subsidy in New Jersey. Each session was limited to 12 participants to encourage the engagement of all participants. Parents and legal guardians received a \$30 Amazon gift card to compensate them for participating.¹ At the beginning of each session, participants electronically signed their participation consent forms. They completed a short survey with demographic and professional information, as well as basic information about their place of employment. Most participants were African American, employed women with an average age of 32 years, a bachelor's degree, and an annual income between \$20,000–\$40,000.

Child care providers

We conducted seven focus groups with child care providers from August to October 2022. The number of participants at each session ranged from three to nine individuals and totaled 37 individuals altogether. We offered different days of the week and times of day to facilitate participation. Directors of registered home providers and licensed center providers were invited to separate sessions. At the start of each session, participants completed a short survey with demographic and professional information, as well as basic information about their place of employment. Of the 37 participants, 35 filled out the initial survey. The majority of participants were female and between 31 to 76 years of age. Most (86%) had completed at least a bachelor's degree, 9% held a vocational degree, and the other 5% had a high school degree or equivalent. The racial/ethnic composition was predominantly White non-Hispanic (70%), followed by African American/Black (20%) and Hispanic (10%). (Note that one person refused to provide this information.) All participants worked full-time, and their experience working at a child care facility ranged from one to 49 years.

Public agency staff and advocates

Data collection from public state and county agencies and advocacy groups was completed from September to October 2022 and was comprised of eight one-hour, in-depth interviews via Zoom with a total of 17 individuals. Six interviews were conducted with public agency staff, and two were with advocates (one had two participants). Within the stakeholder group of public agency staff, and to understand experiences at the county agencies, we conducted five interviews with CCR&R staff, four of which were individual interviews and one a group interview with eight people. We also conducted one group interview with two state-level DFD staff members with extensive experience in child care subsidy programs.

¹ Parents and legal guardians were the only study group who received an incentive for participating in the study.

Data analysis

All interviews and focus groups were recorded and transcribed. Written notes and internal memo writing were used to document researcher observations further and summarize participants' concerns, motivations, and general understanding of the issues. The research team organized the data collection to better understand the costs associated with the change of payment method for the child care subsidy program in New Jersey. Semi-structured data collection instruments allowed flexibility and no predetermined themes or codebook was used. For this reason, we conducted a content analysis approach as a "data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings" (Patton, 2015, p. 790).

During the focus groups, there were at least two members of the research team present at each session: the facilitator and an observer. Once the participants left the session, the pair had a short reflection on the information provided by the participants and the impressions of the session. Simultaneously, a different researcher conducted the interviews, and only one of the interviews had an observer. For the transcription process, the principal investigator assigned pairs to review the transcripts' accuracy and provide internal feedback on the coding process. We started creating NVivo codes directly from participants (Patton, 2015; Saldaña, 2013) using NVivo (version 14) to identify better and organize the codes, allowing us to quickly find the quotes and identify descriptive themes (Graneheim et al., 2017). For example, initially, we identified quotes and coded them using "swipe cards" to identify them easily. NVivo helped to identify the stakeholders who mentioned these quotes.

As an iterative process, we initially started identifying the most recurrent issues identified by participants using previous notes. These themes were analyzed in pairs to check their reliability. After the researchers identified themes of interest for the bigger project, we focused on the swipe card system for this paper. We used an Excel spreadsheet to align codes, categories, and themes following Saldaña's model (2013) for the process coding. Table 2 shows the final organization of the main theme and subthemes by categories based on the theoretical framework of administrative burdens.

Findings

The majority of participants had negative perceptions of the swipe card mechanism. Parents and guardians, child care providers, and advocates disliked the swipe card mechanism and commented on its negative effects. Moreover, advocates even questioned the motivations behind State decisions, reflecting a tense relationship between the advocacy community and State agencies regarding child care policy. In contrast, state and county agency staff expressed more nuanced feelings about the swipe card system because many considered it innovative when it was introduced in 2012 and were initially pleased with its development. However, public agency staff agreed that over time, the system's disadvantages became apparent.

The major theme related to swipe cards that emerged from our analyses was that the swipe card mechanism introduces various administrative burdens. This theme is comprised of three major subthemes, which we present in this section. We follow the structure of Table 2 to describe each of the subthemes along with the associated categories and subcategories related to compliance and psychological costs.

Table 2. Coding process

Theme: Swipe card mechanism introduces various administrative burdens		
Subthemes	Category/subcategory	Quote
The swipe card mechanism is burdensome for beneficiaries	Compliance/technology	"So I have to swipe the card, put the pin and then like, oh, man, it's been a while. [...] sometimes I will have a problem with the, with the swiping [machine], so I will have to get somebody to help me how to do it." [Parents and guardians]
	Compliance/time consuming	"If you had more than one children, you had to start all over for that second child. It was a very difficult process. Some people did it beautifully, and other people, some people are in a hurry, some people have difficulty coping." [Public agency staff]
	Compliance/time consuming	"To get a parent to swipe in in the morning and out at the end of the day, every single day, or to back swipe that you know, fourteen-day period after it's already taken place, I mean, for any parent who's dropped off a child care, that time doesn't exist." [Advocates]
	Psychological/stigma	"You know, it's not even just with child care. It can be with just utilizing your snap card, you know what I'm saying? You know, going to the grocery store and just trying to get your groceries and then someone sees you pull out your snap card and then it can make you feel uncomfortable because of that stigma that unfortunately comes with it." [Parents and guardians]
	Psychological/social marker	"A few years ago, this is how it was in our grocery stores, when people would go in and there'd be a specific cashier that could deal with food stamps. Now, you wouldn't know because it was unacceptable in society to be, you know, kind of earmark like that and identified like that. However, we have the same antiquated system in our childcare." [Child care provider]
	Psychological/social marker	"... And it is so terrible to see these families have to identify themselves by this swipe in swipe out system. It's archaic. It is. It's just I don't say inhumane, but the social justice of it is so huge, and it's 2022, and we're lining up families that live in poverty to identify themselves." [Advocates]
The swipe card mechanism is burdensome for child care providers	Compliance/staff	"... I typically had to hire a staff member just to do epic to look in, to see who swipe and who didn't swipe, and that's a lot." [Child care provider]
	Compliance/staff	"I'm the person who goes to the the infants room into our waddlers room, and I'm also the person who's supposed to be keeping track of our payments and finding any problems, and if someone didn't swipe and they have 2 weeks to do the back swipe I'm supposed to be the person managing that, and that's the problem." [Child care provider]
	Compliance/staff	"Rather than being frantic about having to look at that portal every day: Did they transact? Was it a successful transaction? Who do I have to chase? I have to hire a whole person to look at those transactions all the time, and I have to spend an entire salary on someone to do that kind of work. And that is so very hard to do that." [Public agency staff]
	Compliance/procedures	"You could get more than one machine [to transact], but it's still people are coming, there're coats going on and off, there're carriages, there's: "oh, I just wanna let you know, Johnny didn't really feel well," Johnny puked, you know... There's just commotion getting all these people in the door, and who punched, who didn't punch. Now you need somebody running after them: "Oh, you didn't Punch." [Public agency staff]
	Psychological/mistrust	"All of these systems are built simply because they do not trust child care providers to do things in the same way that the Department of Education does it." [Public agency staff]
Recommendations to reduce burdens	Efficiency of resources	"Creating a better process and experience for both providers and parents; and being efficient and effective." [Public agency staff]
	Innovative ways	"I'm sure that every center takes attendance for insurance purposes." [Public agency staff]

Subtheme: The swipe card mechanism is burdensome for beneficiaries

The first subtheme that emerged from our analyses was that the swipe card mechanism was burdensome for the beneficiaries of the subsidy program, the parents and guardians. Coding revealed strong agreement across all stakeholder groups that parents and guardians experience significant compliance and psychological costs as a direct result of the use of swipe cards in the child care subsidy program. All stakeholders agreed that parents and guardians, as beneficiaries of the child care subsidy program, were directly affected by the implementation of the swipe card mechanism. Parents and guardians unanimously expressed negative opinions about using swipe cards. They agreed that the swipe card mechanism was inconvenient, and some mentioned it was

even “torture.”

Regarding compliance costs, advocates expressed concerns about the mechanism of the necessary reliance on the card and parents’ ability to consistently use it properly. Parents and guardians had to use it twice daily, first to check in their child and later to check them out, to remain compliant with the subsidy program. Various challenges were discussed in relation to the daily nature of the task. Specifically, parents and guardians said they sometimes forgot them, or more often, relatives picking up their children did not have the card with them. Also, parents and guardians perceived swiping cards as a “hassle,” especially when there was no parking or they needed assistance with the machines because of technological issues.

According to public agency staff, problems and complaints with the swipe cards happened regularly. Staff described it was easy to make mistakes due to various factors, particularly problems with corrections and remembering the unique child code associated with the swipe card. They agreed that the swipe card mechanism placed too much onus on parents, as one staff member explained:

“Transacting every day was in their best interest. But again, these are parents who are running around like crazy people trying to get things done and keep their families together, and they still had to use this card and swipe it.”

Similarly, parents and guardians mentioned that correcting errors due to failed transactions when using the card, which was described to be common, posed additional hassle. Parents mentioned they sometimes had to call by phone to adjust attendance when the card failed. Others made adjustments in person with their provider but felt uncomfortable because of the time it consumed. Parents and guardians described an additional difficulty adjusting attendance records when they did not know the exact day their child’s attendance was not properly recorded. In this sense, a participant expressed that: *“they make you feel like you tried to fraud in child care, with all the notifications, so if you don’t know the day, it is impossible to catch up.”*

Regarding psychological costs experienced by parents and guardians, all stakeholders described associated burdens in this category. For instance, parents and guardians who had experience with the swipe card mechanism expressed that there was a *“stigma associated with it.”* Some participants explained that they chose the phone-based attendance option with the swipe-card code instead of physically swiping the card so other parents would not know their child was receiving a subsidy. Moreover, one participant from the advocate stakeholder group commented that the swipe-card system resembles the stigma that food stamps generated when they initially came out, stating that it is *“inhumane”* to differentiate vulnerable families from others.

Similarly, child care providers echoed the concerns of parents and guardians regarding stigma. They explained that tracking children’s attendance through a publicly identifiable mechanism contributed to stigmatizing low-income families. According to them, this situation can create discrimination among both children and parents. For instance, providers referred to daily situations where, for example, parents blamed subsidized children for any playground incidences or other confrontations. Child care providers agreed that this circumstance is a unique misstep to this benefit. One participant summarized it:

“I really have a huge issue with the equity of the swipe system. And I think that it is, I cannot believe in 2022, that we are asking for families that have less means to identify themselves at such a core community place as a child care center, that basically stamps them with a scarlet letter saying that I don’t have the same as a person that just came in.”

Finally, public agency staff also noted psychological costs associated with stigma. One county agency staff member described how swipe cards functioned as a mark to differentiate the “*poor kids, and who were not the poor kids.*” A state agency staff member also discussed the stigma of using swipe cards since they served to differentiate subsidy families from private paying ones. They expressed hope that the cards could change, as one participant stated: “*just trying to erase that stigma of the card ... we know that there are other systems out there where attendance can be captured without having to carry around that card.*”

Subtheme: The swipe card mechanism is burdensome for child care providers

The second subtheme revealed through our coding process was that the swipe card mechanism was burdensome for the third-party service providers, the child care providers. As expected, child care providers in our focus groups raised various concerns related to the swipe cards, noting that tracking child attendance by swiping cards was costly for them in terms of time, staff, and money. These concerns are associated with compliance costs. Participants described the primary problem with swipe cards as “*inconsistent*” because parents sometimes forgot them, the machines sometimes malfunctioned, or the lines to use them were too long. In some cases, child care providers had to hire and pay a staff member “*just to supervise who swipes and who does not*” to facilitate correct record-keeping.

Child care providers from large centers explained that they could have up to four swipe card machines, but the machines still got crowded, which made it hard to track attendance and assist parents when they needed help. In cases when parents forgot to swipe and corrections were not made immediately, providers explained that they sometimes opted not to get paid rather than undergo the “*manual adjustment.*” For them, the additional paperwork and time were not worth the amount of the reimbursement payment when parents did not swipe.

Family-based child care providers had a different perspective, as small providers were not required to use the swipe card system. Instead, attendance registration was done manually for these providers. While they had the option to use the system, family-based providers explained that they would need to pay for the machine as well as a second telephone line to connect the device. These providers unanimously felt that opting into the swipe card system was not worth this cost.

Child care providers saw the use of swipe cards as a symbol of the mistrust they felt in operating under an attendance-based payment system. In other words, providers also felt a degree of psychological cost. Although child care providers acknowledged the importance of accountability in a public system, they agreed that the strict model of swiping cards reflected the mistrust and poor perception they felt others had of them. One participant mentioned:

“There is a distrust of the State and our industry. And all of these systems are built simply because they do not trust child care providers to do things in the same way that the Department of Education does it.”

The Department of Education does not need to walk down through a district with pencil and paper and swipe in and out and track children in this way. And it is simply because they do not trust us to identify the number of children on subsidies, what that is costing us to hold those spots and to be provided funds for it.”

Public agency staff commented on the compliance costs that child care providers faced. In particular, one county staff member explained that swipe card use (or non-use) directly impacted payments to providers but not parents’ ability to continue using the provider’s services. In this way, providers depended on parents *transacting* (using the swipe card mechanism correctly) to receive their payments, but the parents had little incentive to comply. Similarly, county-level staff whose job was to support providers said that despite their efforts to ensure the transaction was recorded, there was always some level of non-compliance from the parents. As one participant said, *“train the parent, train the provider, but you’re at the will and the mercy of the parent transacting.”* Participants confirmed that some providers had to hire additional staff to monitor the transaction procedure exclusively.

Finally, advocates explained that child care providers had limited resources and requiring them to monitor parents’ swiping or checking in for attendance could be excessive. One participant said: *“We don’t have business administrators that sit in an office and just do these kinds of reports that they think up there. So, anything that’s daily is gonna be too much.”*

Subtheme: Recommendations to reduce burdens

Lastly, the coding of the focus groups and interviews yielded a strong consensus that swipe cards should be eliminated and replaced completely with a different attendance mechanism. Some articulated reasons related to the reduction of psychological costs. Parents and guardians explained that eliminating swipe cards would allow them to use their benefits more discretely, like in other social programs such as health insurance and food assistance. All public sector participants expressed strong interest in improving the system for parents and child care providers, noting the need to reduce both psychological and compliance costs. Participants also commented that they constantly interact with providers and parents to introduce changes that could improve the system, and expressed hope that such conversations might help them identify potential improvements. As one participant commented, they *“bring their voice to the State so we can make sure their voice is [considered] in our policies, and we’re hearing their concerns.”*

Recognizing the burdens of the swipe card system, public agency staff felt that there are more innovative ways to keep track of children. One participant suggested that the swipe card system could be replaced with provider data. In this sense, child care providers suggested that there should be better ways to maintain accountability without compromising their finances and the quality of their child care services. Almost all the public agency staff agreed that one possible strategy to yield higher compliance would be for child care providers to deny service to parents who did not swipe. However, one participant disagreed and explained that state policy did not permit providers to terminate parents for habitually failing to properly complete transactions.

One frequently mentioned solution was the development of an app to track attendance. Some public agency staff participants suggested the use of apps or machines that require fingerprints

to let the parent into the building. However, some advocates commented that developing an app for parents to report attendance is problematic because not all families have access to wireless services or have a smartphone to support this technology. One advocate emphasized that program administrators should not spend public resources on designing an app to record attendance and that those resources could be better used. In sum, despite the strong consensus that swipe cards should not be used, stakeholders failed to identify a solution that was supported by all.

Discussion

Mapping our themes related to stakeholder experiences with the child care subsidy swipe card system in New Jersey to an administrative burdens framework reveals insights regarding two types of costs. As expected, given that our investigation focused on an inactive mechanism, we did not see evidence related to learning costs. Findings reveal numerous compliance costs, and new and unanticipated psychological costs incurred by participants through swipe cards to record attendance. The aforementioned costs are embedded in multiple layers, affecting both the beneficiaries and the third-party service providers. First, compliance costs are related to the daily hassles associated with the routine practice of signing children in and out of attendance using swipe cards. When enforcing these rules regularly, unexpected daily situations added to these burdens. For instance, our findings showed burdens when there were inconsistencies in using swipe cards when parents and guardians forgot them, experienced a machine malfunction, corrected past errors, or had long lines to swipe. Interestingly, enforcing swipe cards modified the discretion of these providers by procuring rule-following, as previous studies stated (see Jorna & Wagenaar, 2007; Peeters & Widlak, 2018). Prior studies suggest that child care providers' participation in subsidy programs is associated with their administrative capacities, among other elements (Giapponi Schneider et al., 2017, 2021; Slicker & Hustedt, 2022). Additionally, employing resources to enforce rule-complying favored the identification of more burdens, as Fox et al. (2020) expressed. Particularly, our results are consistent with prior reports that described elevated burdensome experiences for child care providers, especially pertaining to the responsibility of ensuring attendance recording (Murrin, 2019).

Second, our findings reveal significant psychological costs as participants noted that swipe cards served as a marker, differentiating subsidy recipients from private paying parents. The attendance-reporting procedure left parents who receive a subsidy feeling stigmatized, supporting prior related findings (see Cook, 2021). These psychological costs seemed to be an unintentional outcome of the policy design (Peeters, 2020). Specifically, the decade-long swipe cards mechanism could have been intended to procure efficiency (Doughty & Baehler, 2020) and deter fraud (Halling & Baekgaard, 2023), but did not consider the related psychological costs on program participants. Participants advocated less-stigmatizing mechanisms in this scenario, as in other welfare programs.

Overall, the swipe cards were an innovative technological tool at the time of their adoption. However, contrary to some studies, this technology did not facilitate a burden reduction for beneficiaries. Furthermore, in our study, when challenges with the swipe cards arose for parents and guardians, dealing with such issues was the responsibility of the third-party providers, not the state actors. In these circumstances, studies suggest that governments should strategically improve

their information systems to contribute to better services (van Donge et al., 2022). Our study was purposely designed to consider various stakeholders, with the understanding that their perspectives and experiences facilitate a better understanding of the phenomenon. The confluence of these points of view could help decision-makers to improve the child care subsidy system in the future. For example, participants suggested that policymakers should consider technological innovations allowing recipients to use these benefits more discretely (like an app).

Like in all research projects, our findings are bound by the limitations of our scope and must be understood within this context. As a New Jersey case study, our findings are tied to the context of New Jersey practice, policy, and politics. Similarly, our findings about the swipe card mechanism are intrinsically tied to the broader attendance-based payment system. Stakeholder recommendations, in particular, would likely look different under other policy circumstances. Future research on the experiences of other states could serve to bolster or refine our findings. Furthermore, our virtual data collection strategies, which relied on Zoom meetings, likely introduced some bias in our sample. While very convenient for most working parents and staff, virtual groups and interviews are inaccessible to those lacking access to a computer, smartphone, and/or the requisite technological skills were not able to participate. With these limitations in mind, we emphasize the value of including parent voice in our research and echo other recent calls for more qualitative research on administrative burdens (see Baekgaard & Tankink, 2022; Barnes & Riel, 2022; Halling & Baekgaard, 2023).

Conclusion

Administrative burdens are costly experiences that individuals face when accessing and utilizing public services and benefits. A deep understanding of policy design and implementation must consider the extent of these burdens, a particularly critical endeavor in regard to programs serving low-income families, as they typically have complex eligibility criteria and participation procedures. Such is the case for child care subsidies. In 2012, the State of New Jersey implemented a swipe card mechanism for attendance taking, an integral element for calculating subsidy payments to child care providers, which was later paused during the COVID-19 pandemic. This study examined how using swipe cards alleviates or exacerbates administrative burdens in the child care subsidy system and found that the swipe cards added both compliance and psychological costs to the experiences of beneficiaries. Moreover, our findings indicate that the experiences of the child care providers in our study can also be understood using the framework of administrative burdens. Our study provides preliminary insights into a circumstance in which these third-party service providers needed to assume some of the burden in order to secure their payments from the state.

In sum, our study adds to the administrative burden of scholarship in the understudied topic of child care subsidies, providing meaningful insights about the effects of procedures and rules on program access and benefit recipients, and to a more limited extent, third-party service providers. Access to affordable child care services has critical implications for households' finances, particularly for low- and moderate-income families. Our results serve as a cautionary tale in adopting new technologies and illustrate the need for states to think critically about past decisions, as New Jersey

did in this case. Overall, despite our focus on the State of New Jersey, our findings have implications for other states that also employ swipe cards. Our examination of different perspectives beyond the usual participant–implementer approach provides a more profound understanding of the complexities surrounding state decisions and their impacts on both beneficiaries, and to a lesser extent, on third-party providers.

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