

Using Behavioral and Design Science to Reduce Administrative Burdens: Evidence from Public Housing

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This study explores the potential of an interdisciplinary approach that integrates design and behavioral science theories to identify behaviorally-based obstacles and promote organizational change grounded in participant experience. The approach is tested in a mixed-method study with Minneapolis Public Housing Authority (MPHA). Through the partnership with MPHA, I show how a design-based approach can help identify behaviorally-based obstacles such as the existing choice architecture and residents’ cognitive outcomes that may be causing undesirable outcomes; and how it can help mobilize participant expertise to help change existing choice architecture. Through an experimental test, I show the ability of the resulting intervention to reduce eviction actions. Integrating these approaches in the context of a behaviorally-informed understanding of administrative burdens opens fertile theoretical and methodological ground for a behavioral design approach.

While the behavioral and design sciences share an academic lineage, they have drifted toward different disciplines, picking up the methods of their adopted fields. This drift is unfortunate because design offers powerful tools to uncover the knowledge of system participants and make changes that fit an organization (Simon, 1968; Cross, 2011), while behavioral science offers a deep literature of techniques to understand human behavior, alter choice architecture, and measure the impact of that change (Thaler & Sunstein, 2008).

Research Design and Key Takeaways

This research involved a mixed methods study of public housing to help the local public housing authority reduce the number of tenants who get behind on their rent payments and become subject to eviction actions. In the study, I found a few ways that complex processes made it difficult for residents to pay rent in a timely manner. In working with public housing staff, I implement and evaluate the impact of two interventions: **simplifying a late payment letter** and **promoting the use of automatic rent payments**.

Research Questions	Sample and Methods	Key Takeaway
RQ1: What features of public housing contributed to the current choice architecture and resident cognitive biases that are associated with negative housing outcomes?	I used a design-based approach to understand and map current individual and organizational conditions in public housing. This included staff (n = 15) and resident interviews (n = 12), field observation (60 hours), focus groups (2 groups), a resident survey (n = 538), and review of administrative data to identify complexity and cognitive errors, as well as potential changes.	By using multiple methods, researchers can better converge on the existing conditions and latent needs of residents. In particular, the findings point to the important, reciprocal conversations that happens when resident engage with peers, bureaucrats, and institutions, writ large. What residents learn from these conversations appears to influence future individual decision-making.

Research Questions 	Sample and Methods 	Key Takeaway 
RQ2: How do modifications to the choice architecture emerge and evolve over time through the application of a design-based approach?	I completed in-depth staff interviews (n = 11) at the end of the project to understand how <i>behavioral design</i> promotes change.	In public housing, the qualitative and quantitative data helped identify a menu of cognitive errors and related administrative burdens that could be modified. However, even the modifications that were possible to make within existing organizational constraints still require fundamental shifts in organizational behavior.
RQ3: What impact did the design-based interventions have on eviction actions in public housing?	After consulting with staff and residents on what changes to pursue, I experimentally tested the impact of one of these behavioral bottlenecks: an automatic withdrawal nudge (10,500 individuals across 46 clusters) that sought to increase on-time payments. A second intervention to change late payment letters (n = 2,500) was also designed and put in the field, but COVID-19 halted the experiment.	In this case, the design-based approach was able to create a contextually relevant nudge to sign-up for automatic rent payment withdrawal that reduced administrative burdens for residents. The behaviorally-informed payment letter change also became standard agency practice.

Research Implications

Research drawing on behavioral design has the power to improve the design of interventions and promote organizational change. This research shows the importance of working alongside system participants to identify frictions that hamper the pursuit of their own long-term, self-defined goals. Behavioral design also allowed for organizational change, by promoting reflection on data collected. Following the intervention, interviews with public housing leadership and staff showed the behavioral design process of collecting data from the frontlines and bringing it to staff for discussion **created the conditions to change processes** that staff had previously considered “sacred, not to be touched”.

This knowledge can then be marshalled—through deliberation with residents and staff—to refine interventions and encourage organizations to change the extant choice architecture. In emphasizing local voices and knowledge, this approach can implement solutions that are valuable and viable not only in housing policy, but also influence the general process of policymaking to become more participatory for citizens with firsthand experience.

References

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