

ACCESSING
JUSTICE WITH
ZOOM

EXPERIENCES AND
OUTCOMES IN ONLINE
CIVIL COURTS



Accessing Justice with Zoom: Experiences and Outcomes in Online Civil Courts

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Table of Contents

Executive Summary	1
Background	4
COVID-19 and the Rapid Shift to Remote Technologies	4
Unrepresented Litigants and the Digital Divide	4
Studies of Remote Proceedings During the COVID-19 Pandemic	6
Competing Perspectives on the Impact of Remote Hearings	7
Part I: Digital Experience Sampling Platform	9
Overview	9
Experience Sampling Platform Development	9
Data Collection and Participants	10
Centering on Unrepresented Parties in Civil Proceedings	11
Demographics of Participants	11
Part II: Experiences and Outcomes within In-Person and Remote Hearings	13
Overview	13
Litigants' Preferences for In-Person and Remote Hearings	13
Ex-ante and Ex-post Preferences	13
Preferences by Party Type	14
Preferences by Case Type	16
Experienced Procedural Justice: Judge and Overall Process	17
Procedural Justice and Trustworthiness of Judges	17
Fairness and Satisfaction with Overall Court Process	18
Experienced Distributive Justice: Outcomes and Outcome Satisfaction	20
Resolved Cases: Outcomes and Outcome Satisfaction	20
Pending Cases: Expected Outcomes and Anticipated Outcome Satisfaction	20
Structured Coding of Actual Outcomes in Eviction Cases	22
Method and Measures	22
Results	23
Summary	24
Part III: Structural, Technological, and Psychological Affordances and Barriers	26
Structural Affordances and Barriers	26
Barriers Encountered When Attending Court In Person and Remotely	26
Locations From Which Remote Hearings Accessed	28
Technological Affordances and Barriers	29
Devices and Technology Used to Access Remote Hearings	29
Technological Difficulties During Remote Hearings	32
Structured Observations of Archived Remote Court Hearings	33
Psychological Affordances and Barriers	37
Stress, Coping, and Challenge-Threat	37
Social Exclusion and Social Identity Threat	38
Part IV: Digital Divides and Challenges in Remote Proceedings	41
Overview	41
Risk Factors of Challenges in Remote Proceedings	41
Consequences of Challenges in Remote Proceedings	45
Conclusions	48
Appendix 1: Demographic Measures	50
Appendix 2: Technical Reporting on Experience Sampling Platform	51

Executive Summary

The global COVID-19 pandemic brought significant change to our civil justice system, particularly in the rapid shift from in-person to remote court proceedings. Courts across the country, facing the unprecedented challenge of a global health emergency, embraced rapid innovation and the adoption of remote proceeding platforms, such as Zoom and Webex. State courts did so across case types, including within high-volume civil dockets containing evictions, debt collections, small claims, and family law cases, where millions of self-represented and unrepresented litigants encounter the U.S. civil justice system each year. Amid the pandemic, voices converged to encourage these justice innovations, including the voices of Supreme Court justices, state court administrators, and access to justice reformers who reimagined judicial administration with these new technologies. Concurrently, given this rapid national experiment, challenges ensued, complicated by inexperience with these platforms prior to the pandemic and vexing digital divides.

This report enters the national conversation at an especially crucial time: state supreme courts and court administrators are actively deliberating on what the new normal will entail post-pandemic. Some courts are poised to retreat from remote technologies and return fully to in-person proceedings. Others seek to use these technologies to expand access. The future will depend on decisions made in the present, a present ripe with opportunity and potential. Given growing national and international calls for people-centered justice, these system design and judicial administration decisions should be guided by court users' voices, preferences, and experiences. Yet

the evidence on the effectiveness of these technologies has been lacking.

To date, little empirical research has been conducted on the impact of these remote technologies on vulnerable and unrepresented individuals, including those on the disadvantaged side of the digital divide. This report fills this gap by comparing the experiences of unrepresented persons attending civil proceedings in person with those accessing court remotely and therefore gives voice to these unrepresented litigants.

Like many legal professionals, we, too, reasonably hypothesized that many unrepresented persons, especially unrepresented defendants, in eviction, small claims, debt collection, and family law cases, might leave remote court with negative experiences and concerns about the fairness and justness of online proceedings. We, therefore, hypothesized that many may prefer to attend court in person after attending an online court, despite the conveniences afforded by remote technologies.

However, the unrepresented litigants in this large-scale study spoke loudly and resoundingly: online civil courts enhance access to justice for unrepresented litigants, especially unrepresented defendants navigating high-volume civil dockets. Unrepresented litigants who accessed court remotely wished to access court remotely in the future. Remote proceedings improved their experiences of procedural justice and outcome satisfaction, provided notable conveniences, and decreased the stress of attending court in person. Technological difficulties were rarer than we

anticipated in remote proceedings. Our report highlights the opportunities and challenges of this technological shift in modality. It emphasizes the importance of continuing to listen and learn from the experiences of these litigants to guide innovation and people-centered design within the civil justice system in the United States and more broadly.

We conducted this study as a collaboration between an interdisciplinary team of access to justice researchers and a network of court innovation and design experts, court administrators, legal aid providers, and jurists on Indiana's Coalition for Court Access. Through this collaboration, we developed a first-of-its-kind digital experience sampling platform giving voice to unrepresented persons after their hearings in state courts. This experience sampling platform allowed our research team to collect data from over 2,000 respondents, largely unrepresented litigants from high-volume civil dockets, including eviction, debt collection, small claims, and family law cases. The judges and court administrators who fielded this novel experience sampling platform in their courts exhibited compassion and a sincere desire to listen, learn from, and understand the experiences and outcomes of litigants in their courts, hallmarks of people-centered justice. This study explored multiple dimensions of the litigant experience, including preferences for hearing modalities (in-person vs. remote), evaluations of procedural justice and distributive justice, outcomes, and the structural, technological, and psychological affordances and barriers faced within in-person and remote proceedings.

Key Findings

1. Preferences. Most unrepresented persons who attended court remotely wished to access

court remotely in the future. However, among litigants who attended court in person, we observed a decline in their preference for in-person proceedings. Many unrepresented persons, particularly defendants, who attended court in person expressed a desire to try remote proceedings in the future.

2. Procedural Justice. In-person hearings revealed gaps in procedural justice between unrepresented plaintiffs and defendants, which narrowed or closed in remote proceedings. We observed this pattern consistently across multiple measures of the litigant experience, in part, because unrepresented defendants who accessed court remotely reported more favorable experiences than unrepresented defendants who attended court in person.

3. Distributive Justice. Unrepresented defendants who accessed court remotely reported higher satisfaction with case outcomes than those attending court in person. We engaged in a structured review of eviction case outcomes, which revealed that judgments favoring plaintiffs were more common after in-person proceedings, primarily because agreements were more common after remote proceedings (*i.e.*, we shall discuss the novel use of Zoom breakout rooms for court-assisted mediation and eviction prevention in the report). As a result, evictions were less common after remote proceedings than in-person proceedings.

4. Structural Affordances and Barriers. Litigants more frequently encountered structural barriers, including employment, childcare, and transportation barriers when attending court in person. Yet litigants who accessed courts remotely encountered other barriers associated with technology, including needing to pay for data/minutes,

find convenient Wi-Fi access, and overcome technological problems. At the same time, nearly 80 percent of litigants attending remote proceedings benefited from the convenience of accessing online civil courts from their homes or workplaces.

5. Technological Affordances and Barriers.

The digital divide between lawyers and unrepresented defendants was evident. Most unrepresented persons accessed remote hearings on smartphones. In contrast, lawyers and a minority of unrepresented litigants accessed these hearings from laptops and desktop computers. Most unrepresented persons had high-speed internet access in the home. Yet a notable minority lacked high-speed internet and confidence in the device they used to access remote proceedings. Finally, technological challenges occurred in 10 percent of cases. While infrequent, when these challenges did occur, litigants indicated that these difficulties negatively impacted their hearings. We discuss the predictors and consequences of these challenges in the final section of our report.

6. Social Psychological Affordances and Barriers.

Importantly, stress was greater for unrepresented defendants than unrepresented plaintiffs within in-person proceedings, a gap that narrowed in remote hearings. Unrepresented defendants reported greater stress within in-person proceedings than remote hearings. Similarly, social exclusion and social identity threat were more pronounced for unrepresented defendants than unrepresented plaintiffs in person, but these gaps narrowed in remote proceedings.

Conclusion

These findings highlight the importance of understanding the experiences and outcomes of unrepresented litigants when engaged in civil justice design and underscore the benefits of continuing to make civil proceedings widely available through remote platforms such as Zoom and Webex. At the same time, these findings also emphasize the need to continue addressing technological and structural barriers, ensuring equitable access to online civil courts, and providing litigants with ways of participating in remote court processes that meet the needs of the most vulnerable and least advantaged. By embracing the benefits of remote proceedings and addressing these challenges, courts can enhance access to justice and create more inclusive and equitable virtual proceedings. This research reveals the promise of people-centered justice design and the benefits of continuing to innovate upon civil court proceedings.

We open this report with a Background section reviewing research on the pandemic-driven shift to online courts, as well as research on how online courts create both opportunities and barriers for unrepresented litigants, who themselves are often disadvantaged. In Part I of this report, we discuss the development of our novel experience sampling platform and the demographics of our participants. In Part II, we discuss our findings on the experiences and outcomes of unrepresented litigants within in-person and remote proceedings. In Part III, we outline the structural, technological, and psychological conveniences and barriers online proceedings create. Finally, in Part IV, we focus on the challenges unrepresented litigants encounter in remote hearings, the risk factors of these challenges, and the consequences of these challenges.

Background

COVID-19 and the Rapid Shift to Remote Courts

The gravest public health challenge in a century left our civil justice system disrupted and transformed. In weeks, courts across the country and the world were forced to make countless, rapid, and difficult decisions about preserving the health of court personnel and litigants while continuing to make courtrooms available. Many courts suspended in-person hearings and moved proceedings to remote platforms, such as Zoom.¹

While court reformers have called for courts to embrace new communication technologies for decades,² as of yet a dearth of empirical research exists on how harnessing online civil courts may affect vulnerable unrepresented persons and low-income persons in the United States on the “have not” side of the digital divide.³

Past research on how remote technologies influence judicial administration and outcomes is mixed. Over a decade ago, research examining video conferencing using older technologies found that criminal defendants appearing via video conference were disadvantaged.⁴ One widely cited study revealed that, compared to in-person bail hearings, video hearings resulted in bail amounts 51 percent higher for those appearing remotely than those attending hearings in person.⁵ Even so, most research on the impact of remote proceedings predates the pandemic.⁶ Accordingly, these studies do not fully account for newer technologies, which have improved the quality of remote interactions online,

or the public’s increased proficiency with these technologies. As such, drawing reliable conclusions from studies that predate the pandemic is difficult as many sectors of society have rapidly embraced new forms of digital communication.

At the same time, little attention has been paid to the implications of remote hearings on vulnerable persons who navigate the civil justice system without representation (*i.e.*, unrepresented persons or self-represented litigants). Nor has sufficient attention been paid to high-volume cases involving potential asymmetries in representation, legal experience, and imbalances of power. These asymmetries often occur in evictions, debt collection cases, small claims, and family law cases, where lawyers (or plaintiffs with representation) litigate against unrepresented defendants.⁷

In short, the need for a thorough empirical investigation of the access to justice implications of the shift from in-person to online civil courts is pressing. This report seeks to center the voices and experiences of unrepresented litigants and to surface the access to justice implications of these new technologies.

Unrepresented Litigants and the Digital Divide

Two interlocking trends underscore the need for careful study of the impact of remote civil proceedings: the prevalence of unrepresented persons in our civil justice system and vexing societal digital divides.⁸

First, the number of unrepresented persons, especially unrepresented defendants, in civil courts has risen rapidly. This sea change is especially true in case categories where basic human needs are at stake, including evictions, debt collection, small claims, and family law cases.⁹ Each year, millions of cases filed in our states' civil justice systems involve one or more unrepresented persons. Many of these unrepresented litigants are members of racially and socially disadvantaged groups who encounter this system without legal representation when defending their basic civil legal rights.¹⁰ Because our civil justice system was largely designed for litigants with lawyers, many State Supreme Court justices, state court administrators, and legal scholars reason that access to justice in the United States is in crisis.¹¹

Like other U.S. states, these trends are prevalent in Indiana, where civil cases reveal high rates of unrepresented defendants.¹² For example, in eviction cases, 70 percent of landlord-plaintiffs have representation, yet among defendant-tenants, only 1 percent do. Similarly, in debt collection cases, 98 percent of plaintiff-collectors have representation, but among defendant-debtors, only 4 percent do. In small claims cases, 78 percent of plaintiffs have representation, yet among defendants, only 3 percent do. Finally, in family law cases, while 43 percent of plaintiffs are represented, only 17 percent of defendants have counsel. Thus, most civil cases are marked by representation asymmetries, especially in the prevalence of defendants without representation. These facts highlight the importance of understanding the experience of all unrepresented litigants, both the self-represented litigants filing claims and the defendants representing themselves in court, and any gaps in their experiences

and outcomes when navigating the civil justice system.

Second, understanding how the digital divide impacts virtual court proceedings is critical but unresolved.¹³ The digital divide, including differential access to and expertise with information technology (e.g., computing technology, high-speed internet), limits low-income Americans from fully participating in life online, including learning, seeking employment, obtaining social services, and participating in civil activities and democratic institutions.¹⁴ U.S. society increasingly stratifies Americans into “digital haves,” with easy and fluent access to information technology, high-speed internet, and technical savvy, and “digital have-nots” who rely primarily on smartphones with interrupted, costly, and low-quality internet connections.¹⁵

In Indiana, we recently developed a digital divide dashboard with the Self-Represented Litigation Network (SRLN).¹⁶ This publicly available resource reveals that nearly 740,000 Indiana residents have *no* personal internet access (10.8 percent of the statewide population, according to ACS 2022 ACS 1-Year Estimates for Indiana), a deficit especially pronounced among senior citizens, African Americans, and people living below the federal poverty level. Moreover, possessing a smartphone, in itself, may be insufficient to ensure stable, reliable, or meaningful connectivity, given the burdens of time, energy, and money required to stay digitally connected on a pay-by-the-minute basis.¹⁷

Like other U.S. states, Indiana expanded remote proceedings during the pandemic.¹⁸ The Indiana Supreme Court broadly authorized trial courts to use remote technologies to hold civil proceedings remotely. Most Indiana

courts applied these remote technologies, using Zoom (and less commonly, Webex) to enable online proceedings, and therefore many unrepresented litigants accessed online courts on their smartphones remotely. These platforms also allowed litigants to call into court by phone when they lacked the technology or data to use the programs fully.¹⁹ As the pandemic waned in late 2022, many courts either continued holding most hearings remotely or returned to in-person proceedings, while technically also allowing litigants to object to the modality used by the court and ask for the other modality.

The Indiana Supreme Court rescinded its pandemic remote proceedings guidelines in early 2023.²⁰ Indiana courts now have broad discretion to use these online platforms in non-testimonial proceedings. However, they can hold remote proceedings in testimonial proceedings (*i.e.*, hearings presenting live testimony) only by agreement of the parties or when good cause is shown. The current study was conducted in 2022 before the Indiana Supreme Court narrowed the use of remote proceedings.

Studies of Remote Proceedings During the COVID-19 Pandemic

Most research on remote proceedings either centers on criminal courts or predates the pandemic, studying older video-conferencing technologies.²¹ As of the writing of this report, only a few published studies have examined the access to justice implications of online proceedings in civil courts using technologies such as Zoom.

For example, the National Center for State Courts (NCSC) conducted one of the first reported studies of remote hearings during

the COVID-19 pandemic.²² NCSC researchers conducted a 12-month study in eight jurisdictions in Texas of 1.25 million minutes of judicial data. For three weeks in April 2021, participating judges tracked their time across in-person and remote proceedings. This study focused mainly on criminal cases and general civil matters. NCSC researchers found that, on average, remote proceedings took longer than in-person hearings. In follow-up focus groups, judges explained that remote hearings appear to provide court users with various conveniences, including decreasing burdens on travel, employment, and childcare. These focus groups surfaced digital divides, including a lack of computers and internet issues among litigants causing delays. Judges also explained that some litigants had difficulty navigating these remote hearings.²³

A second set of studies, supported by the NCSC and conducted by Rulo strategies,²⁴ focused on drug courts and recovery-oriented compliance dockets. These studies examined the impact of remote hearings during the height of the COVID-19 pandemic. Researchers described results from approximately 900 survey respondents (*e.g.*, judges, coordinators, treatment providers, case managers) from over 500 court programs. These surveys focused on how respondents experienced virtual services in these judicially led diversion programs. Nearly half of these survey respondents strongly supported continuing virtual hearings, with many expressing a preference for a hybrid approach. While most respondents reported few barriers transitioning from in-person to virtual services, they identified access to technology, Wi-Fi the internet, and skill level as barriers among 10-15 percent of participants. These studies also featured the benefits of participation in court and treatment remotely, including lowering barriers (*e.g.*, transportation,

time off from work), health risks, anxiety, and increased comfort in engaging with treatment providers and courts. Nevertheless, a quarter of participants expressed a preference for returning to in-person proceedings exclusively in the future.²⁵

A third study, prepared by NPC Research for the D.C. Bar Foundation in 2021, examined litigant perspectives on remote hearings in family law cases.²⁶ Researchers surveyed 189 litigants referred to researchers by legal service providers in D.C.'s Family Law Learning Network (FLLN) after their remote proceedings. Half the respondents had legal representation, and a quarter spoke with a legal aid attorney before their remote family law proceedings. Researchers found that the litigants in these family law cases connected easily and had the necessary technology to participate remotely. They heard well, understood what was happening, felt comfortable and heard by the judge, and were satisfied with their remote proceedings. Like prior studies, online participation alleviated logistical and financial challenges and increased feelings of safety and security, especially among respondents confronting domestic violence. At the same time, focus groups with legal aid attorneys suggested challenges with remote proceedings, including that virtual appearances made it possible to miss nonverbal cues, especially when parties join without video, and that remote proceedings interrupted interactions between attorneys and their clients. In this study, litigants and attorneys expressed a preference for online proceedings in shorter hearings and those not requiring permanent orders, but in-person proceedings for evidentiary hearings and trials.²⁷

These prior reports suggest opportunities and challenges for high-volume civil courts

administering cases at the center of the access to justice crisis when the pandemic wanes. Yet, further study is warranted as the preference for these remote technologies may have been greatest during the pandemic due to health concerns.

Competing Perspectives on the Impact of Remote Hearings

Current research literature is divided on the benefits and harms of remote proceedings. Remote proceedings provide convenience and flexibility, removing transportation barriers and making participating from homes and workplaces easier.²⁸ Remote hearings may save time by reducing delays caused by travel and waiting in physical courtrooms, conveniences that may enable caregivers and persons with mobility impairments to participate more fully in proceedings.²⁹

Other research highlights the potential harms of remote proceedings, including technological challenges and problems stemming from the digital divide.³⁰ Not all litigants, especially vulnerable ones, have reliable high-speed internet connections and ready access to internet-connecting technology, nor do all court participants have the digital literacy to use these technologies effectively. Remote hearings may also constrain the ability to perceive nonverbal cues and body language. Relatedly, some have posited that remote hearings may reduce empathy for vulnerable litigants due to the impact of this technology on the fluidity of social interactions.³¹ Further, technological challenges may interrupt the quality of justice and efficiency, including the ability to present evidence.³² Finally, remote court hearings lack the formality of the in-person atmosphere, which may affect the perceived legitimacy of the proceedings and reduce engagement.³³

Given the complex costs and benefits of online courts, this report centers on how these new technologies affect the experiences of low-income unrepresented persons who encounter and contend with adversities in remote platforms, such as Zoom. We examine the impact of remote proceedings on the experiences and outcomes of unrepresented persons, especially vulnerable persons, and how these technologies reconfigure the structural, technological, and psychological affordances and barriers within the U.S. civil justice system.

In a recently published chapter, we reported an initial phase of this research program entailing observations of over 500 live-streamed Zoom/ Webex proceedings in high-volume civil courts in Indiana, most of which were eviction, small claims, and debt collection cases.³⁴ We conducted these observations in March-April 2021, early in the pandemic, immediately after the first peak. We found that the vast majority of litigants in these proceedings were unrepresented, and a majority dialed into virtual courts on their smartphones without access to the video capabilities of these remote proceedings. As such, they were neither able to see nor be seen. We noted that many of these cases involved multilayered asymmetries: repeat-player lawyers employed the full range of virtual interaction and video-conferencing capabilities on Zoom, while unrepresented defendants dialed into court and were limited to audio-only.

Building on these preliminary findings, we theorized that remote proceedings provide notable benefits, including the potential to participate remotely from more convenient and less stressful environments.³⁵ Nonetheless, we hypothesized that unrepresented litigants might experience in-person proceedings

as more procedurally just than remote proceedings.³⁶ We theorized that this dampened procedural justice may impair participation and leave these remote litigants less satisfied than in-person litigants. We further hypothesized that unrepresented litigants might leave remote proceedings confused and, potentially, feeling threatened by or leaving with less trust in courts.

We underscored the importance of collecting evidence and conducting people-centered research that examines these hypotheses and centers the voices and experiences of unrepresented litigants. By doing so, this report illuminates how virtual proceedings unfold in the lived experience of unrepresented litigants.

Part I: Digital Experience Sampling Platform

Overview

In Part I, we summarize the development of our experience sampling platform, an online tool developed by our interdisciplinary team. We recruited 58 Indiana judges across 40 courts and 12 counties to field the experience sampling platform in their civil courts. The digital experience sampling platform allowed us to reach over 20,000 litigants shortly after their hearings in Indiana courts and ultimately sample the experiences of over 2,000 civil litigants, most of whom were unrepresented. We collected data about their experiences in civil court proceedings, the ease or difficulty of navigating the civil justice system, the challenges and opportunities presented by new technologies in court, and their experience of procedural justice (summarized in Parts II-IV below). These litigants represented the diversity commonly seen in Indiana courts, with over 60 percent self-identifying as women, nearly 40 percent self-identifying as people of color, over 20 percent reporting a disability, and a wide array of educational backgrounds.

Experience Sampling Platform Development

Over the past three years, our team of access to justice researchers, consisting of legal scholars, social scientists, and data scientists at Indiana University, Stanford, and UC Santa Barbara, collaborated with a remarkable statewide network of court partners in Indiana. This statewide network of court partners included court administrators, legal aid providers, and judges affiliated with the Indiana Supreme Court, the Indiana Coalition for Court Access, and the Indiana Supreme Court's Office of Judicial Administration (OJA). Together, we

developed a novel digital experience sampling platform, revolutionizing how courts gather, analyze, and understand the experiences of unrepresented litigants in state courts. Our collaboration received the support of the Indiana Supreme Court, Indiana Bar Foundation, and Pew Charitable Trusts.

We developed the digital experience sampling platform and recruited courts to participate in the study. In close partnership with OJA, we invited all judges across the state who administer high-volume civil dockets, including small claims, evictions, debt collections, and family law cases, to participate in the study. Moreover, we conducted information sessions, responded to Q&A, and encouraged their voluntary participation.

We exceeded the 20 judges initially targeted for the initiative and ultimately recruited 58 judges across 40 courts and 12 counties to field the digital experience sampling platform in their courts. Courts participating in the study handled a broad swath of the high-volume cases of focal interest (*i.e.*, small claims, evictions, debt collection, and family law cases) statewide.³⁷

After recruiting these courts to the study, we obtained approval from Indiana University's Institutional Review Board (IRB) and the Indiana Supreme Court's Office of Judicial Administration for a comprehensive data request, enabling our research team to merge court data seamlessly into the platform and facilitate the weekly distribution of SMS texts and emails to court litigants via our innovative digital experience sampling platform. The experience sampling platform focused on litigants in cases before judges that

administered high-volume dockets of eviction, small claims, debt collection, and family law cases.

The experience sampling platform disseminated surveys to these court litigants through SMS text and email shortly after their hearings. The experience sampling platform combined Qualtrics technology with SMS text capabilities, API pulls of participation on the platform, and the ability to automatically compensate respondents \$15 afterward through Rybbon.net.³⁸

Data Collection and Participants

We conducted an initial pilot of this experience sampling platform in collaboration with one court in April 2022. We then employed a continuous improvement process to improve the dissemination and recruitment over

subsequent weeks. Encouraged by the results of this iterative approach, we expanded the collection on the platform in May 2022, making the digital experience sampling platform available to litigants after in-person or remote proceedings among all courts enrolled in the study. We created panels for the platform weekly and disseminated surveys through multiple modalities, including SMS text and email.

Participation on the platform revealed excellent week-to-week survey response and completion rates, surpassing those typically observed in marketing or user satisfaction surveys. The average click rate on these SMS texts and emails reached 22% (*SD* = 5%), while survey completion reached 10% (*SD* = 24%). Ultimately, we collected over 2,000 experience sampling responses, enriching our understanding of litigants' first-person experiences within the civil justice system.

Experiencing Sampling Tool and Platform

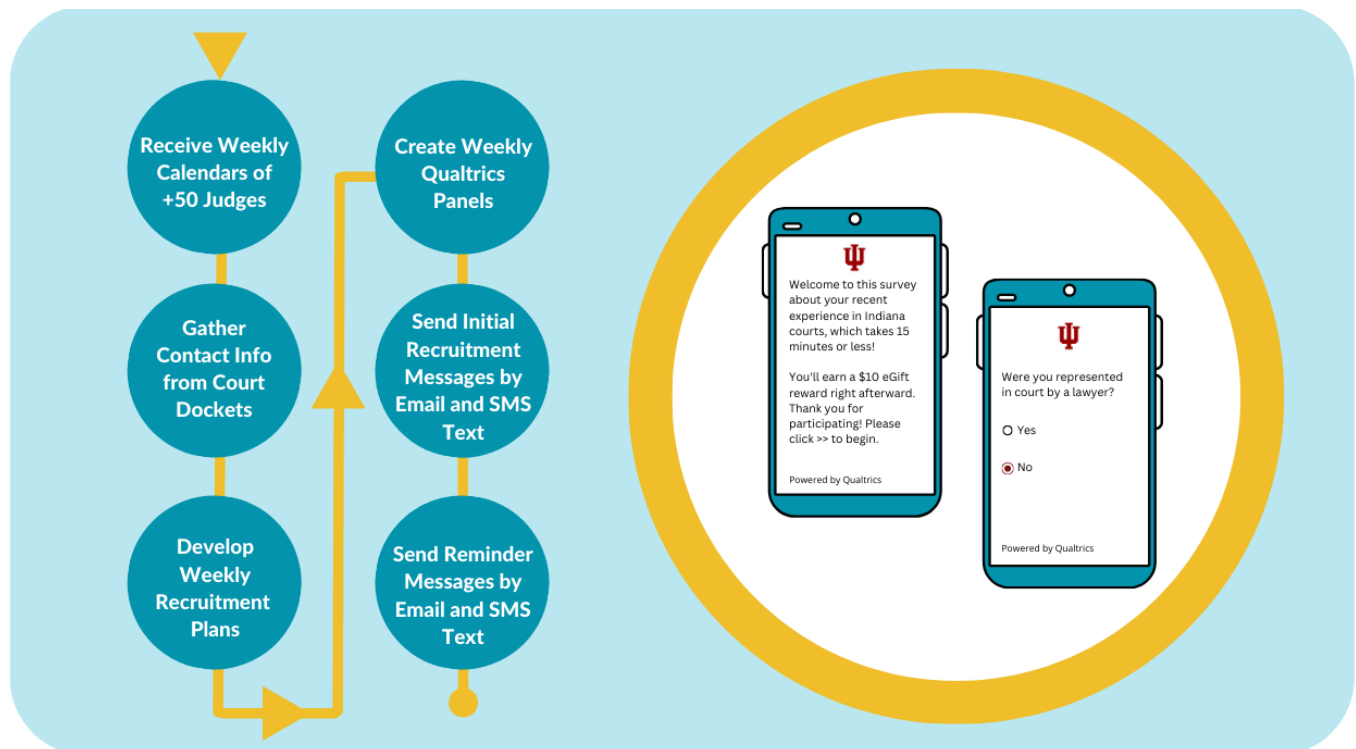


Fig. 1.1

Centering on Unrepresented Parties in Civil Proceedings

The vast majority of the over 2,030 respondents in the digital experience sampling platform were unrepresented parties ($n = 1,878$, 93%), including unrepresented plaintiffs ($n = 881$, 43%) and unrepresented defendants ($n = 997$, 49%). Because more than 90 percent of these respondents were unrepresented, we limited our analysis to persons without representation in the remainder of the report, ensuring we have sufficient statistical power to draw inferences confidently.

We fielded the experience sampling platform among judges handling high-volume civil dockets consisting of evictions, small claims/debt collections, and family law cases. Overall, 46 percent of the unrepresented persons participating in the platform appeared in eviction cases ($n = 866$ evictions), 31 percent in small claims/debt collection cases ($n = 588$), and 23 percent went to court in family law cases ($n = 424$).

Finally, we studied the experiences and outcomes of unrepresented litigants who attended court proceedings in person or remotely on platforms such as Zoom or Webex. Almost 70 percent ($n = 1,315$) of these unrepresented litigants attended court in person, while 30 percent ($n = 563$) attended hearings remotely. In this report, we grouped litigants who accessed remote proceedings by Zoom, Webex, or who dialed into these proceedings by phone, as remote participants.³⁹

Demographics of Participants

Our experience sampling platform included demographic questions inquiring about the gender, race, education, and age of

these unrepresented litigants, along with their disability, language, caretaking, and employment status.⁴⁰

Gender. Most participants on the experience sampling platform self-identified as women (Women: 62%, $n = 1,153$; Men: 37%, $n = 693$; Selected Other: 1%, $n = 23$). Unrepresented plaintiffs and defendants reflected similar gender compositions.

Race. While most participants self-identified as White, a large minority were People of Color (White: 62%, $n = 1,053$; POC: 38%, $n = 650$). Substantial racial-ethnicity differences existed between unrepresented plaintiffs and defendants, with unrepresented defendants reflecting greater racial-ethnic diversity. Among unrepresented defendants, 46 percent self-identified as People of Color (Dfs. POC: 46%, $n = 414$), while among unrepresented plaintiffs, 30 percent self-identified as People of Color (Plfs. POC: 30%, $n = 236$).

Education. When taken together, 31 percent of the unrepresented persons on the platform attained only a high school diploma or less education. In comparison, 34 percent obtained a vocational degree or completed some college, while 36 percent had earned a college degree or more education (High school or less: 31%, $n = 575$; Some college/vocational training: 34%, $n = 622$; College or higher: 36%, $n = 659$). Large education gaps existed between unrepresented plaintiffs and defendants. Specifically, among the unrepresented defendants, only 27 percent (Dfs. College or higher: 27%, $n = 261$) had a college education or more education, whereas 46 percent of unrepresented plaintiffs (Plfs. College or higher: 46%, $n = 398$) had a college degree or further education. Most unrepresented defendants only had a high school diploma or less education (Dfs. High school or less: 38%, $n = 369$).

Disability. Overall, 23 percent of the unrepresented participants reported a disability (Disability: 23%, $n = 424$). More unrepresented defendants indicated that they had a disability than unrepresented plaintiffs (Plfs. Disability: 19%, $n = 169$; Dfs. Disability: 26%, $n = 255$).

English speaking. The vast majority of the participants, 96 percent, selected English as their primary language (English primary: 96%, $n = 1,802$). Although we made our platform available in Spanish, only five litigants completed the survey in Spanish. Our report, therefore, cannot speak to the experiences of non-English native speakers or language access barriers.

Care of Dependents. Nearly 60 percent of the participants (Primary Caregiver: 59%, $n = 1,102$) reported that they are primary caretakers of dependents. Unrepresented plaintiffs and defendants differed in this respect, with unrepresented defendants more frequently serving as primary caretakers (Dfs. Primary Caregiver: 64%, $n = 635$) than plaintiffs (Plfs. Primary Caregiver: 53%, $n = 467$).

Job Status. Sixty percent of participants (Full-Time: 60%, $n = 1,128$) held full-time jobs, while 13 percent (Part-Time: 13%, $n = 237$) were part-time employees. The remaining 27 percent (Unemployed: 27%, $n = 500$) were unemployed. These percentages were comparable for unrepresented plaintiffs and defendants on the platform.

Age. On average, participants were 43 years old ($M = 42.8$, $SD = 13.8$). Yet we observed age differences in which unrepresented plaintiffs were almost a decade older on average than defendants. While unrepresented defendants were 39 years old on average (Dfs. Age: $M = 38.7$, $SD = 11.6$), unrepresented plaintiffs were 48 years old (Plfs. Age: $M = 47.5$, $SD = 14.5$).

Part II: Experiences and Outcomes within In-Person and Remote Hearings

Overview

This section evaluates in-person and remote proceedings by examining the experiences and outcomes of unrepresented litigants. We collected data using a platform fielded across Indiana courts, and this section draws findings from this experience sampling platform. In this section, we describe unrepresented litigants' preferences before and after they attended their hearings, their experiences of procedural justice with judges, the court process, and their self-reported outcomes and outcome satisfaction within in-person versus remote proceedings. We close this section by reporting case outcomes within in-person versus remotely held eviction cases.

Litigants' Preferences for In-Person and Remote Hearings

Do unrepresented litigants prefer to go to court in person, or would they rather access court remotely? What are their preferences? These people-centered questions honor the choice, self-determination, autonomy, and dignity of the people served by the civil justice system. To meet the needs of unrepresented litigants, courts must first know what they want, and whether they would prefer to attend court in person or access court remotely.⁴¹ With this knowledge, court administrators can design people-centered processes that include the in-person/remote modalities that court users demand.⁴² These preferences may also draw attention to the processes that court users believe are fair and just.

We, therefore, begin this report by focusing on two key issues: First, to what extent do the in-person/remote hearing modalities used by courts match unrepresented litigants' preferences before they attend court (*i.e.*, their *ex-ante* preferences)? Second, to what extent do the in-person/remote modalities used by courts match unrepresented litigants' preferences on how they wish to attend court in the future (*i.e.*, their *ex-post* preferences)?

Casting light on these questions, we included two measures in the experience sampling platform, which reached court users shortly after their hearings. First, we asked unrepresented litigants about their *ex-ante* preferences (*"Before the hearing, I wanted to appear in court by ..."*). Second, we asked them about their *ex-post* preferences (*"If I have to go to court again, I would prefer to do so by..."*). Both questions included three response options: going in person to the courthouse, calling on the phone, and going online (*e.g.*, Zoom, Webex). We grouped going online and calling on the phone into a single category, representing a preference for remote proceedings.

***Ex-ante and Ex-post* Preferences**

We turn first to unrepresented litigants who went to court in person. Going to court in person matched the *ex-ante* preferences of 88 percent of these in-person litigants, revealing that the vast majority of these court users wanted to go to court in person before their hearings. After these hearings, however, 75 percent wished to attend court in person in the future, reflecting a statistically significant

decrease in their *ex-ante* to *ex-post* preferences ($p < .001$).

We next focus on unrepresented litigants who accessed court remotely. Going to court remotely matched the *ex-ante* preference of 74 percent of these remote litigants. The vast majority of these court users wanted to go to court remotely before their hearings. Unlike in-person litigants, however, we did not observe a decline in their *ex-ante* to *ex-post* preferences. After accessing court remotely, 74 percent wished to do so in the future.

Taken together, the in-person/remote modalities used by courts matched most unrepresented litigants' *ex-ante* preferences. Yet, some of these litigants were mismatched into a modality they did not prefer (*in-person*: 12%, *remote*: 26%). This underscores the importance of ensuring that court users are aware of their choices and empowered to choose how to attend court before their hearings.

Notably, the percentage of unrepresented litigants who preferred in-person proceedings declined after attending court in person ($p < .001$). In contrast, the percentage who preferred remote proceedings remained stable after going to court remotely. This decline in the preference for in-person proceedings, and the stability of the preference for remote proceedings, suggests that court users may have encountered unexpected challenges when attending in-person hearings, thereby leading them to want to explore remote proceedings in the future. That the *ex-ante* and *ex-post* preference for remote proceedings remained stable after attending remote proceedings

suggests that, in the aggregate, most court users were generally satisfied with this modality.

Preferences by Party Type

Probing in greater detail, we observed a pattern suggesting that the strength of these *ex-ante* and *ex-post* preferences differed among unrepresented plaintiffs and unrepresented defendants. Like the overall patterns presented,

Figure 2.1: Parties' hearing preference changed more after in-person vs. remote hearings.

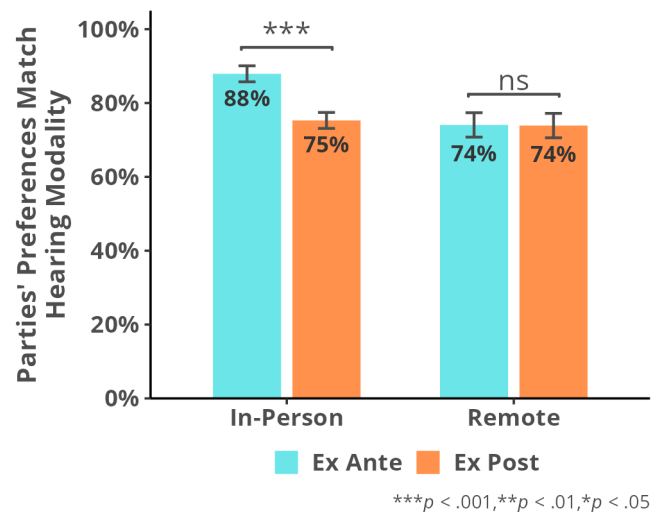


Fig. 2.1. *Ex-ante* to *ex-post* preference change differed for in-person and remote court users, $F(1, 1875.40) = 43.70$, $p < .001$. Significant decline among in-person court users, $\Delta prob = 0.13$, $SE = 0.01$, $p < .001$; no decline among remote court users, $\Delta prob = 0.00$, $SE = 0.02$, $p = .910$.

the in-person/remote modalities courts used frequently matched the *ex-ante* preferences of unrepresented plaintiffs and defendants. However, among in-person participants, plaintiffs more frequently preferred in-person proceedings than defendants ($p < .001$). In contrast, among remote participants, defendants more frequently preferred remote proceedings than plaintiffs ($p < .001$). Yet, like the overall patterns presented, we observed a decline in *ex-ante* to *ex-*

post preferences among both plaintiffs and defendants who attended in-person proceedings. This finding suggests that both plaintiffs and defendants encountered challenges going to court in person, and some wished to switch to remote proceedings in the future. In contrast, the *ex-ante* and *ex-post* preference for remote proceedings remained stable for plaintiffs and defendants who attended court remotely.

Figure 2.2: Before the hearing, defendants preferred remote options.

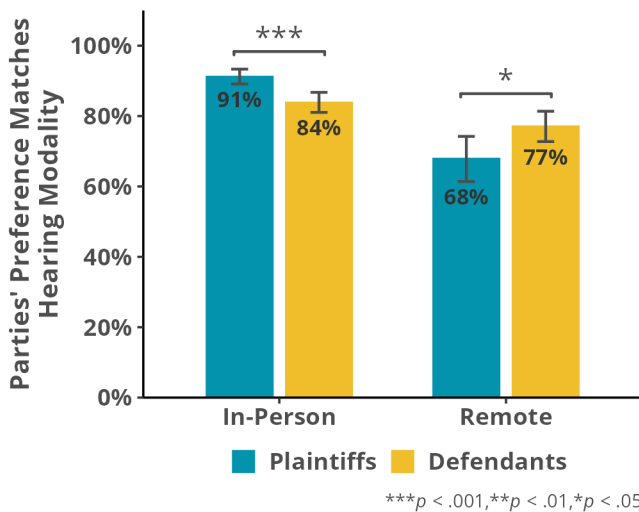


Fig. 2.2. Plaintiffs' and Defendants' *ex-ante* preferences differed across hearing modality, $OR = 3.23$, $SE = 0.26$, $p < .001$. In-person Pls. preferred in-person hearings more than in-person Dfs., $OR = 2.03$, $SE = 0.35$, $p < .001$. Remote Dfs. preferred remote hearings more than remote Plfs., $OR = 0.63$, $SE = 0.12$, $p = .018$.

Figure 2.3: After the hearing, defendants preferred remote hearings.

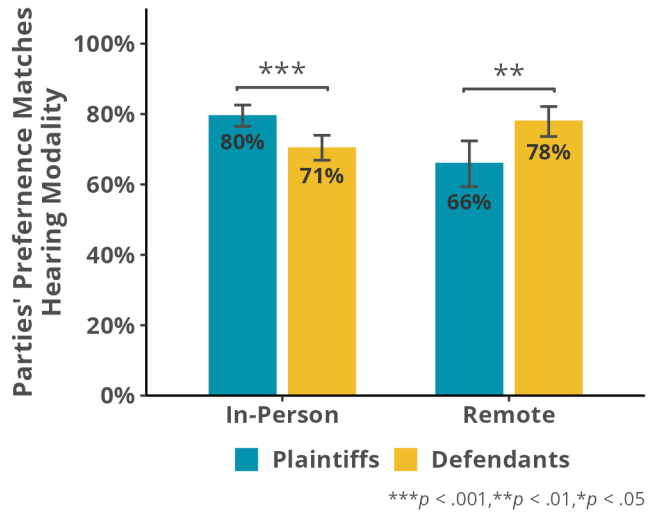


Fig 2.3. Plaintiffs' and Defendants' *ex-post* preferences differed across hearing modality, $OR = 3.00$, $SE = 0.24$, $p < .001$. In-person Pls. preferred in-person hearings more than in-person Dfs., $OR = 1.64$, $SE = 0.21$, $p < .001$. Remote Dfs. preferred remote hearings more than remote Plfs., $OR = 0.55$, $SE = 0.11$, $p = .002$.

Preferences by Case Type

In the above analyses, we aggregated data from the experience sampling platform across case types (*i.e.*, eviction, small claims/debt collection, and family law cases). Yet, the preferences of unrepresented litigants may differ across case types. If so, this may suggest that, across case types and modalities, litigants' experiences may differ. We turned to this question by examining whether unrepresented litigants' *ex-ante* and *ex-post* preferences differed across case types. We did not observe a difference across case types ($p = .802$). Instead, the same pattern was consistent in eviction, small claim/debt collection, and family law cases.

Like the aggregate analysis, the in-person/remote modalities courts used matched most litigants' *ex-ante* preferences in eviction, small claim/debt collection, and family law cases.

This finding across case types was durable. Moreover, the percentage of court users who preferred in-person proceedings declined after attending court in person. In contrast, the percentage who preferred remote hearings remained stable after accessing court remotely across each case type.

Because we did not observe a difference across these case types on this critical measure of court users' preferences, we chose to aggregate across case types in the remainder of the report. We note that the absence of evidence of a difference across these case types in this large sample is not the same as evidence of an absence of a difference across case types in the population at large.

Figure 2.4: Parties' hearing preferences were similar across case types.

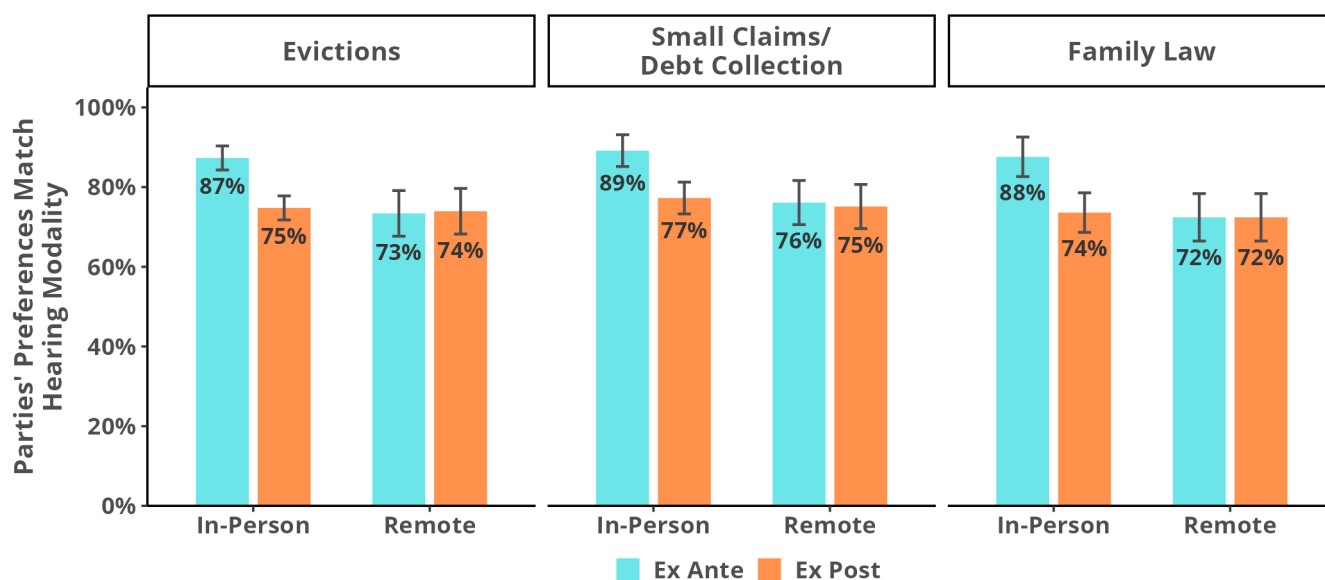


Fig. 2.4. The relationship between *ex-ante* to *ex-post* preference change for in-person and remote court users did not significantly depend on case type, $F(2, 1871.46) = 0.22, p = .802$. Even when accounting for case type, *ex-ante* and *ex-post* preference change continued to differ for in-person and remote court users, $F(1, 1871.46) = 42.71, p < .001$.

Experienced Procedural Justice: Judge and Overall Process

Decades of research reveal that experiences of procedural justice and beliefs about the trustworthiness of judges and the overall fairness and justness of court processes powerfully shape court users' thoughts, feelings, and behaviors.⁴³ These experiences and beliefs, for example, shape the extent to which people obey court decisions voluntarily⁴⁴ and their beliefs about institutional legitimacy.⁴⁵ Procedural justice metrics are, therefore, crucial for understanding peoples' experiences of justice.⁴⁶

Procedural Justice and Judicial Trustworthiness

We examined two critical questions relating to procedural justice: (1) Do the procedural justice experiences of unrepresented litigants who attend court in person differ from those who attend court remotely, and (2) how comparable are the experiences of unrepresented plaintiffs and defendants? To answer these questions, we included *procedural justice* and *judicial trustworthiness* measures in the experience sampling platform.

Shortly after court hearings, unrepresented litigants rated their experience of procedural justice on six items centering on the judge's role in the proceeding (e.g., "The judge treated me with respect."). These six items formed a reliable composite measure of procedural justice ($\alpha = .89$). Participants also expressed their belief about *judicial trustworthiness* on a single measure (i.e., "The judge who handled my case is trustworthy").

In aggregate, unrepresented litigants reported favorable experiences of procedural justice and judicial trustworthiness in both in-person and remote modalities. Yet, we observed a pattern revealing that the experiences of unrepresented plaintiffs and defendants differed within in-person proceedings, but remote proceedings reduced or eliminated this gap in experience.

Whereas unrepresented defendants attending court in person reported significantly lower procedural justice than unrepresented plaintiffs (Plfs. = 4.99, vs. Dfs. = 4.75, $p < .001$), their procedural justice ratings in remote proceedings did not differ (Plfs. = 4.89 v. Dfs. = 4.87, $p = .872$). Although this interaction pattern was marginally significant for procedural justice ($p = .066$), the pattern was statistically significant on measures of judicial trustworthiness ($p = .010$). This pattern was driven, in part, by the fact that unrepresented defendants reported significantly lower scores of judicial trustworthiness (Plfs. = 5.16, vs. Dfs. = 4.85, $p < .001$) than unrepresented plaintiffs when attending court in person. In remote proceedings, however, the gap between the parties closed.

These findings suggest that unrepresented plaintiffs and defendants leave in-person hearings with divergent experiences of procedural justice and feelings of judicial trustworthiness. When participating remotely, however, these gaps may narrow or close. We observed this pattern across multiple measures in the experience sampling platform, meaning the pattern was consistent.

Figure 2.5: Experience gaps in procedural justice were larger among in-person vs. remote parties.

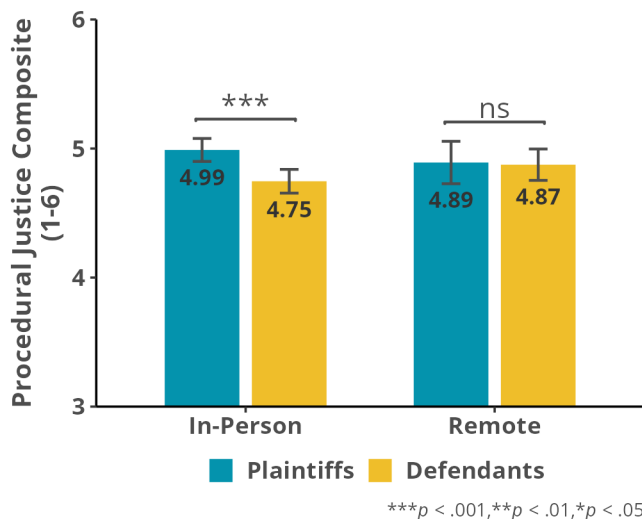


Fig. 2.5. Plaintiffs' and Defendants' sense of procedural justice somewhat depended on attending in-person or remote hearings, $F(1, 1864) = 3.37$, $p = 0.066$, $\eta_p^2 = 0.002$. In-person Plfs.' and Dfs.' perceptions differed, $t(1864) = 3.72$, $p < .001$, $d = 0.21$, but remote Plfs.' and Dfs.' perceptions did not, $t(1864) = 0.16$, $p = .872$, $d = 0.01$.

Figure 2.6: Experience gaps in judge trust were larger among in-person vs. remote parties.

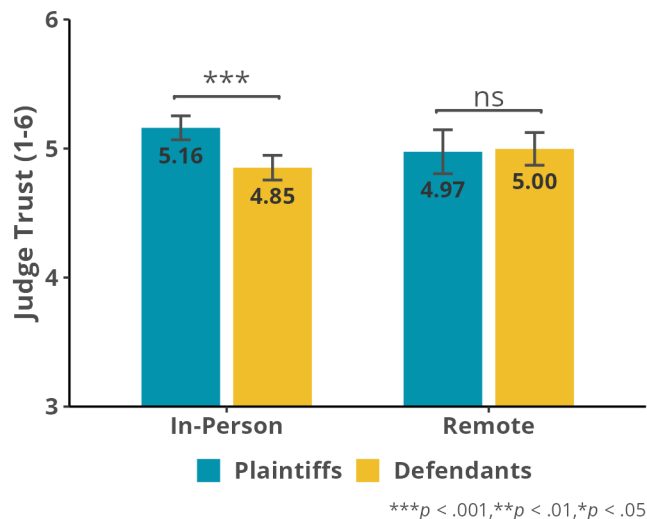


Fig. 2.6. Plaintiffs' and Defendants' trust in judge depended on attending in-person and remote hearings, $F(1, 1863) = 6.72$, $p = 0.010$, $\eta_p^2 = 0.004$. In-person Plfs.' and Dfs.' trust differed, $t(1863) = 4.55$, $p < .001$, $d = 0.25$, but remote Plfs.' and Dfs.' trust did not, $t(1863) = -0.21$, $p = .837$, $d = -0.02$.

Fairness and Satisfaction with Overall Court Process

Procedural justice metrics often seek to measure whether the public believes they were treated fairly by judges and other governmental officials.⁴⁷ Research has also revealed that overall evaluations of the fairness and justness of court and institutional processes influence justice-related thoughts, feelings, and behaviors.⁴⁸ These evaluations closely relate to trust and legitimacy in institutions.⁴⁹ Therefore, these overall evaluations are another key metric indicating the quality of justice courts confer.

We sought to investigate two questions: 1) to what extent do overall evaluations of court processes among unrepresented litigants who attend in-person hearings differ from those who attend remote hearings, and again, 2) to what extent are overall evaluations of

unrepresented plaintiffs and defendants comparable? Accordingly, we included questions in the experience sampling platform that asked respondents to offer their overall assessment of the court experience and the convenience of attending their hearing.

Litigants provided their overall assessment of the fairness and satisfaction of the court process on two items (e.g., "Overall, how satisfied or dissatisfied are you with the entire process.") (1 = very dissatisfied - 6 = very satisfied), which formed a reliable composite representing their *overall evaluation* of court process ($\alpha = .92$). They then rated the *convenience* of the court experience by selecting one of two options: "My recent court experience was convenient." or "My recent court experience was inconvenient."

We again observed a significant interaction pattern ($p = .038$) whereby, when in-person, unrepresented plaintiffs' and defendants' overall evaluations of the court process differed, but when remote, the gap between these parties closed. Indeed, although in-person defendants reported significantly lower overall process evaluations than in-person plaintiffs (Plfs. = 4.72, vs. Dfs. = 4.35, $p < .001$), the overall evaluations of remote defendants and remote plaintiffs did not differ. The closure of this gap was driven, in part, because defendants who participated remotely had significantly more favorable experiences than defendants who participated in person ($p = .034$).

Why might evaluations of in-person and remote modalities differ? One reason may be the relative convenience of attending court remotely. Unrepresented plaintiffs and defendants reported significantly different levels of convenience when attending court in person (Plfs. = 73% vs. Dfs. = 60%, $p < .001$). Both groups of litigants reported higher and comparable levels of convenience when attending court remotely (Plfs. = 81% v. Dfs. = 78%, $p = .025$). Yet, these convenience gains were especially pronounced for unrepresented defendants. In Part III, we will discuss the affordances and barriers navigated by litigants within in-person and remote hearings in great detail.

Figure 2.7: Experience gaps in process evaluations were larger among in-person vs. remote parties.

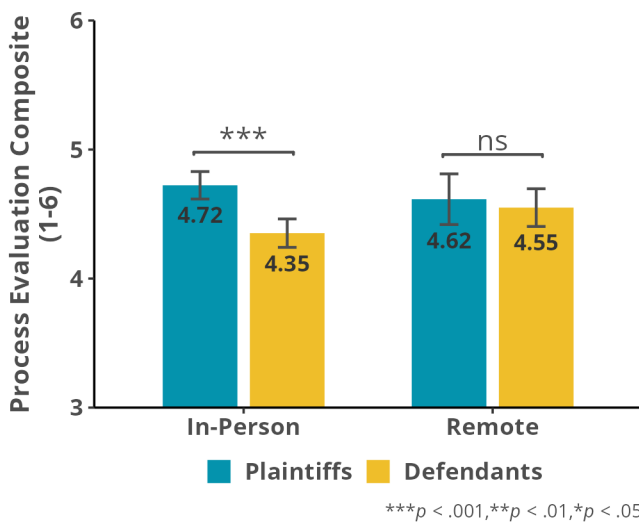


Fig. 2.7. Plaintiffs' and Defendants' overall process evaluations depended on attending in-person and remote hearings, $F(1, 1862) = 4.31$, $p = 0.038$, $\eta_p^2 = 0.002$. In-person Plfs.' and Dfs.' evaluations differed, $t(1872) = 4.75$, $p < .001$, $d = 0.26$, but remote Plfs.' and Dfs.' evaluations did not, $t(1872) = 0.52$, $p = .602$, $d = 0.05$.

Figure 2.8: Experience gaps in convenience were larger among in-person vs. remote parties.

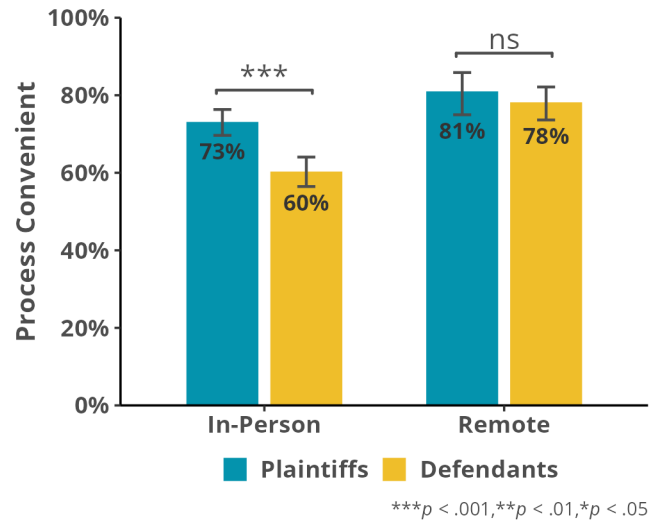


Fig. 2.8. Remote participants found the process more convenient than in-person participants, $OR = 1.57$, $SE = 0.20$, $p = .025$. In-person Plfs.' and Dfs.' evaluations differed, $OR = 1.79$, $SE = 0.21$, $p < .001$, but remote Plfs.' and Dfs.' evaluations did not, $OR = 1.19$, $SE = 0.26$, $p = .430$.

Experienced Distributive Justice: Outcomes and Outcome Satisfaction

Distributive justice—whether people experience outcomes as just—is another critical metric of people-centered justice and dispute-system design and a crucial dimension of overall court experience.⁵⁰ Whether the shift from in-person to remote court processes impairs the perceived fairness of and satisfaction with outcomes, courts must seek to understand. For example, do litigants leave court with different outcomes—or experience their outcomes differently—depending on whether they attend in-person vs. remote proceedings? If their cases are still pending, do litigants expect that their ultimate case outcomes will vary depending on whether they attended court in person versus remotely?

Therefore, we first asked unrepresented litigants in the experience sampling platform ($n = 1,878$) to indicate whether their cases had been resolved (43%, $n = 805$), whether their cases were still pending (50%, $n = 932$), or whether they were unsure (8%, $n = 141$).

Litigants whose cases were resolved then answered a single item that captured their self-reported *case outcome*: whether they felt that they had won or not (“Overall, I feel like I won this case.” or “Overall, I feel like I did not win this case.”). Afterward, they provided their overall evaluation of the fairness and satisfaction of their case outcome on two measures (e.g., “Overall, how satisfied or dissatisfied are you with the outcome of your case?”) (1 = very dissatisfied - 6 = very satisfied), which formed a reliable composite of *outcome satisfaction* ($\alpha = 0.96$).

Litigants with ongoing cases answered a single item that captured their self-reported expected case outcome: whether they felt they would win

or not (“Overall, I feel like I will win this case.” or “Overall, I feel like I will not win this case.”). They then provided their overall expectation of the *fairness* and *satisfaction* of their case outcome on two items (e.g., “Overall, how satisfied or unsatisfied do you think the outcome of your case will be?”) (1 = very dissatisfied - 6 = very satisfied), which formed a reliable composite of anticipated outcome satisfaction ($\alpha = 0.93$).

Resolved Cases: Outcomes and Outcome Satisfaction

Among resolved cases, more unrepresented plaintiffs felt like they had won their case than unrepresented defendants after both in-person proceedings (Plfs. = 85% vs. Dfs. = 58%) and remote proceedings (Plfs. = 88% vs. Dfs. = 59%). The gaps in these self-reported case outcomes across modalities were comparable ($p = .561$).

On outcome satisfaction, however, although unrepresented defendants reported significantly lower outcome satisfaction than unrepresented plaintiffs within in-person proceedings (Plfs. = 4.99 vs. Dfs. = 4.35, $p < .001$), these gaps narrowed in remote proceedings (Plfs. = 5.15 v. Dfs. = 4.77, $p = .087$). Why might this be? Unrepresented defendants reported greater satisfaction with their outcomes when accessing court remotely than when attending court in person ($p = .008$).

Pending Cases: Expected Outcomes and Anticipated Outcome Satisfaction

In pending cases, more unrepresented plaintiffs anticipated winning than unrepresented defendants after both in-person (Plfs. = 88%

vs. Dfs. = 55%) and remote proceedings (Plfs. = 74% vs. Dfs. = 48%).

Yet, these ongoing cases presented a different pattern of results than resolved cases. In these ongoing cases, unrepresented plaintiffs' outcome expectations were significantly lower when accessing court remotely than when attending court in person ($p < .001$). Similarly, unrepresented plaintiffs anticipated being less satisfied with their ultimate case outcomes when accessing court remotely than when attending court in person (Plfs. In. = 4.46 v. Plfs. Rem. = 4.13, $p = .022$). We observed similar patterns for unrepresented defendants that did not reach statistical significance.

Taken together, in-person/remote modalities do not appear to alter self-reported case outcomes: whether court users believe they

won or lost. Yet these remote modalities appear to improve satisfaction with eventual case outcomes, especially among unrepresented defendants.

Interestingly, the experiences of court users with resolved cases did not match the expectations of those who attended hearings in ongoing cases. Remote participants anticipated winning less frequently and having less satisfaction with outcomes than warranted based on our findings, especially unrepresented plaintiffs. Stated differently, unrepresented litigants, and especially unrepresented plaintiffs, who accessed court remotely anticipated that going to court remotely decreased their chance of winning and may dampen their satisfaction with ultimate outcomes. This gap between expectations and actual experiences is worthy of continued study.

Figure 2.9: Experience gaps in outcome satisfaction were larger among in-person vs. remote parties.

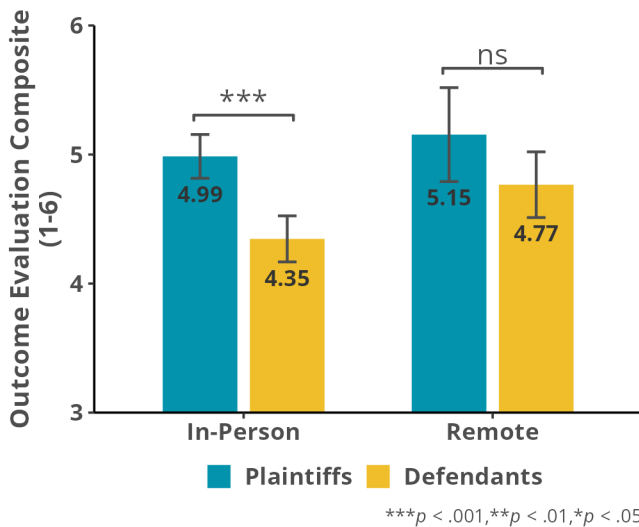


Fig. 2.9. Plaintiffs' and Defendants' evaluation of their case outcome did not depend on attending in person or remotely, $F(1, 799) = 0.94, p = 0.332, \eta p^2 = 0.001$. In-person Plfs.' and Dfs.' evaluations significantly differed, $t(799) = 5.10, p < .001, d = 0.42$, but remote Plfs.' and Dfs.' evaluations did not, $t(799) = 1.72, p = .087, d = 0.25$.

Figure 2.10: Experience gaps in expected outcome evaluations were larger among in-person vs. remote parties.

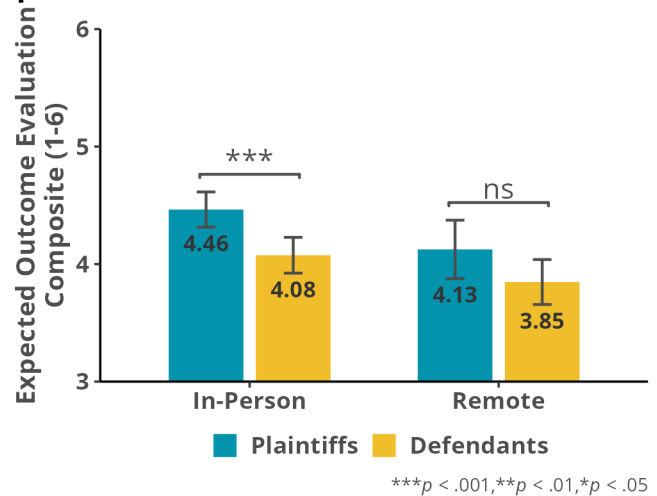


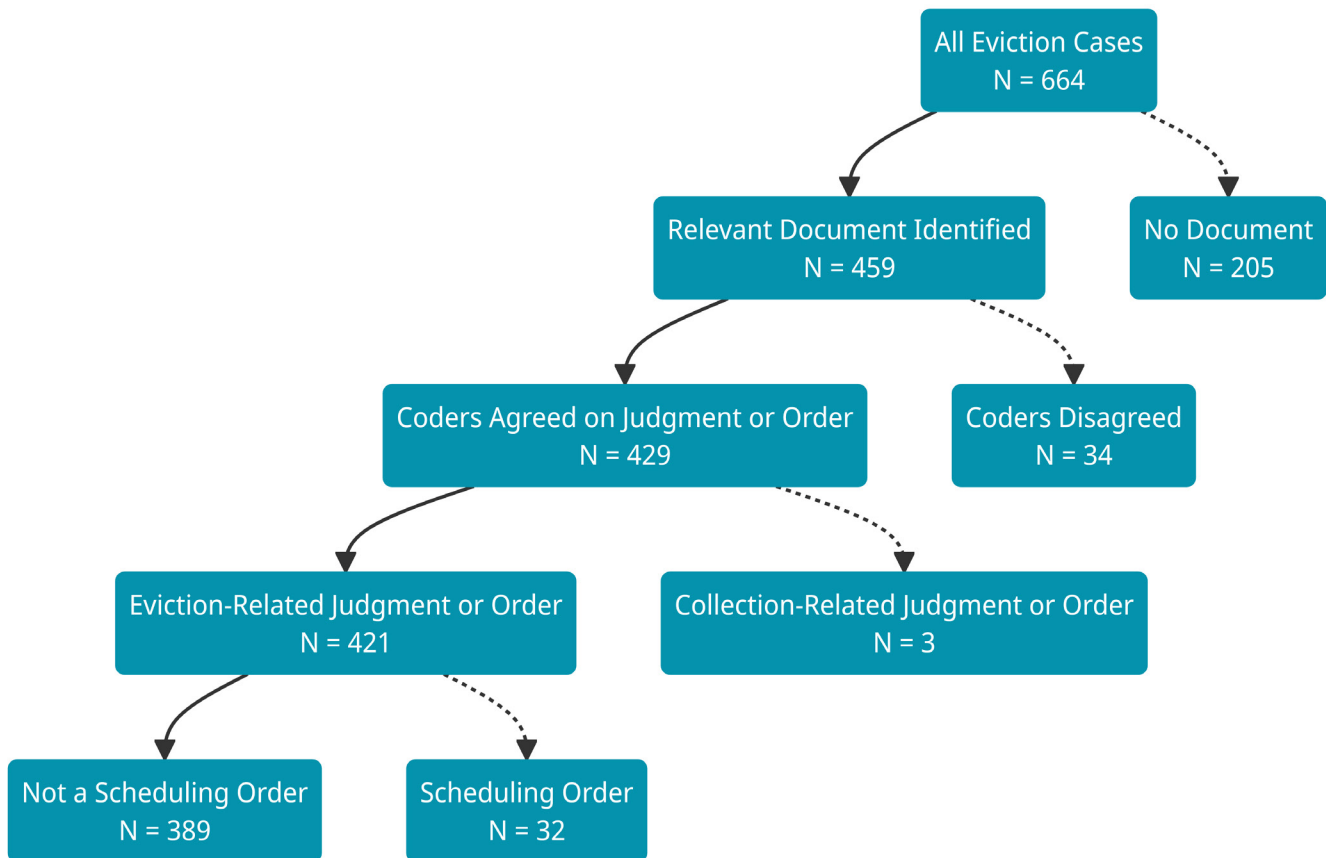
Fig. 2.10. Plaintiffs' and Defendants' evaluation of their anticipated case outcome did not depend on attending in person or remotely, $F(1, 1066) = 0.33, p = 0.565, \eta p^2 < .001$. In-person Plfs.' and Dfs.' evaluations significantly differed, $t(1066) = 3.57, p < .001, d = 0.27$, but remote Plfs.' and Dfs.' evaluations did not, $t(1066) = 1.74, p = .083, d = 0.19$.

Structured Coding of Actual Outcomes in Eviction Cases

These self-reported case outcomes and outcome satisfaction measures are crucial for understanding how these unrepresented litigants experience the civil justice system. Yet examining case files and case outcomes provides additional insight on the nature and impact of remote hearings. As such, in Spring

2023, we conducted a structured review of case files and outcomes in eviction cases that matched the surveys of unrepresented litigants in our experience sampling platform. We sought to understand whether evictions are more common after in-person or remote hearings.

Figure 2.11: Eviction Consort Diagram



Method and Measures

We began this process by first matching each survey in the experience sampling platform to an underlying case docket and case file available on Odyssey, the electronic case filing system used in Indiana. To do so, we received bulk data and electronic files from the Indiana Supreme Court's Office of Judicial Administration in each case surveyed on the experience sampling

platform. The Indiana Supreme Court's Office of Judicial Administration provided access to dockets, orders, judgments, and materials through a secure platform. We developed a detailed coding scheme and trained a team of law students for two weeks to implement this coding scheme for the orders and judgments in these cases.

We engaged in structured coding of orders and judgments that matched the eviction hearings surveyed by our platform. This entailed limiting the dataset only to eviction cases in which courts actually issued judgments or orders at the eviction hearings sampled by our platform. Hearings in these eviction cases took place between May 3 and December 27, 2022. We, in turn, arrived at $n = 459$ cases in which the court issued an order or judgment at (or in response to) the hearing.

A team of 22 law students at the Indiana University Maurer School of Law then engaged in structured coding of these $n = 459$ cases. All 459 eviction cases were coded by two or more law students. Observations were aggregated to yield a single value on coded features in each case. In most instances, coders agreed. In cases of inter-coder disagreement, we used a majority rule to determine the presence/absence of a feature within a case. This aggregation by majority rule yielded results in 92.4% of these eviction cases ($n = 424$ cases).

We focused our analysis on eviction hearings yielding judgments and, therefore, remove from consideration orders that were not judgments (e.g., scheduling/rescheduling orders, $n = 35$). The ultimate set of cases included ($n = 389$) eviction cases and contained more cases resolved by in-person ($n = 317$) than remote hearings ($n = 72$). Coders assessed multiple case features in these eviction cases, two of which this report centers upon. They first categorized the judgment in these eviction cases (i.e., “Which of the following categories best reflects the order/judgment you are coding?”), and categorized hearings as a) *Judgment in favor of Plaintiff*, b) *Judgment in favor of Defendant*, c) *Judgment Entering Agreement/Settlement*, and d) *Judgment Dismissing Case without Settlement*.

Second, coders assessed whether the judgment entailed an eviction of a tenant/defendant, requiring the tenant/defendant to move out (i.e., *Does the Order award the Plaintiff possession of real estate?*). They indicated responses of *Yes*, *No*, or whether they were *Unsure*.

Results

Increased Settlements in Remote Hearings.

We first analyzed the categories of judgments resulting from these ($n = 389$) eviction hearings. Judgments favoring plaintiffs occurred more frequently after in-person than remote hearings (*In-person*: 85% vs. *Remote*: 61%, $p = .008$). The difference in these categories of judgments appears attributable to the increased settlements taking place during remote hearings. Specifically, judgments entering settlement agreements occurred more frequently after remote than in-person hearings (*In-person*: 4% vs. *Remote*: 22%, $p = .012$).

Why might this be the case? While we cannot say for certain, our study revealed several possible explanations. For example, the decrease in judgments for plaintiffs may be attributable to new methods of eviction prevention available only in online civil courts. We observed courts use Zoom breakout rooms to make legal aid and pro bono attorneys available to unrepresented persons for brief advice during their remote hearings. These same courts also supplied court-supported mediation in Zoom breakout rooms during their remote hearings. Integrating these services with this new remote technology may have resulted in an increase in agreements. We will discuss these novel practices in online civil courts at greater length in a future report.

Evictions. We next analyzed the frequency of evictions across these two hearing modalities

($n = 389$), after excluding ($n = 8$) cases in which the coders were unsure whether evictions occurred. All of the cases were designated by the Office of Court Services as “EV” or “eviction cases” because the primary issues in contention involved whether a tenant should remain in possession of property or whether a landlord is entitled to damages. Therefore, we determined that an eviction occurred in these EV cases when a court issued a judgment in favor of the plaintiff and when that judgment entailed obtaining possession of real estate. Most of these cases involved judgments of possession and writs of possession issued by courts.

We found that evictions occurred in a significantly greater percentage of in-person hearings than remote hearings (*In-person*: 66% vs. *Remote*: 44%, $p = .001$).

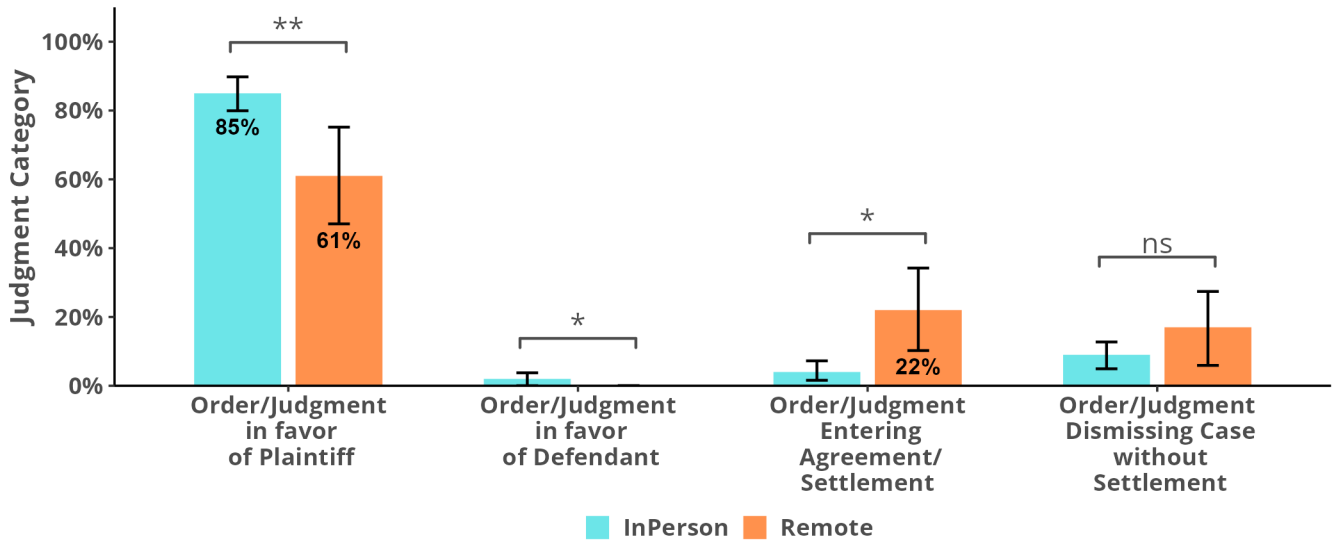
In addition, our structured review of case judgments across the eviction cases matched the experience sampling surveys gathered in our digital platform and revealed a difference in case outcomes by modality: in-person vs. remote. Judgments for plaintiffs occurred more often after in-person hearings than remote

hearings, while agreements occurred more frequently after remote hearings than in-person proceedings. As a result, evictions were more common after in-person proceedings (66%) than remote proceedings (44%; 22% difference, 95% confidence interval [9%, 36%]).

Summary

Unrepresented litigants in remote courts had generally positive experiences. They voiced that online civil courts are more convenient than in-person courts and as easy to navigate as in-person courts. Notably, these benefits were especially pronounced for unrepresented defendants, who are more likely than plaintiffs to belong to marginalized groups. Further, online civil courts attenuated the gaps in procedural justice ratings observed between unrepresented plaintiffs and defendants within in-person proceedings. Finally, while the shift to online civil courts does not appear to alter self-reported outcomes (*i.e.*, self-reported win-loss outcomes), unrepresented litigants appear to leave court more satisfied with their ultimate case outcomes after remote proceedings. We also observed that, in eviction cases, agreements/settlements were more common in online civil courts.

Figure 2.12: Judgments differed across surveyed in-person and remote hearings.



*** $p < .001$, ** $p < .01$, * $p < .05$

Fig. 2.11. Differences in judgments after in-person and remote hearings. Judgments for plaintiffs occurred more often after in-person than remote hearing, $\Delta prob = 23.7\%$, $SE = 6.1\%$, $p = .008$. Judgments for defendants also occurred more often after in-person than remote hearings, $\Delta prob = 1.9\%$, $SE = 0.8\%$, $p = .048$. Agreements between the parties occurred more often after remote than in-person hearings, $\Delta prob = 17.8\%$, $SE = 5.0\%$, $p = .012$. Finally, no significant differences emerged in dismissals after in-person and remote hearings, $\Delta prob = 7.8\%$, $SE = 4.7\%$, $p = .145$.

Part III: Structural, Technological, and Psychological Affordances and Barriers

Overview

Part III of this report examines the structural, technological, and psychological affordances and barriers encountered by unrepresented litigants in remote and in-person proceedings. In this section, we first describe the structural affordances and barriers unrepresented litigants navigated, such as taking time off work, finding childcare, and traveling to court. Then, we turn to technological affordances and barriers, including the availability of high-speed internet in the home and the extent to which court users had confidence about accessing remote courts with their devices. We close this section by highlighting the psychological frictions unrepresented litigants experience within in-person proceedings, including stress, social exclusion, and social identity threat, and how remote proceedings appear to address these experiences.

Structural Affordances and Barriers

Consistent with literature revealing the convenience of remote participation,⁵¹ we above reported that nearly eight in ten unrepresented persons found remote hearings convenient. Others have noted that online proceedings reduce interruption from work, time and expense of traveling to court, and decrease the burden of obtaining child care. Yet few studies have yet to identify the burdens and affordances encountered by in-person and remote participants and to compare them directly.

Here, we sought to cast light on two issues: first, whether unrepresented persons attending court in person encountered different participation barriers than those

who accessed court remotely, and second, where unrepresented persons accessed court remotely.

Barriers Encountered When Attending Court In-Person and Remotely

Court users indicated whether they encountered a variety of structural barriers when attending their court hearings. These structural barriers included: 1) *Employment-related barriers*, including needing to take time off work; 2) *Childcare-related barriers*, such as needing to find and pay for childcare; 3) *Transportation-related barriers*, including paying for transportation and traveling 30 minutes or more to attend their court hearing; 4) *Waiting-time barriers*, including waiting an hour or more for their court hearing; 5) *Technology-access barriers*, such as needing to borrow a phone/computer, pay for data/minutes, travel for Wi-Fi or call reception, ask someone for tech help, or contending with tech problems; and 6) Other interruptions or distractions.

Consistent with prior research, litigants who attended in-person hearings faced barriers to employment, childcare, and transportation more frequently than those who accessed court remotely.

For example, in-person participants more commonly encountered *employment-related barriers* (e.g., time off work, *In-person*: 59% vs. *Remote*: 37%), *childcare-related barriers* (e.g., finding childcare, *In-person*: 15% vs. *Remote*: 5%), and *transportation-related barriers* (e.g., traveling 30+ min., *In-person*: 23% vs. *Remote*: 5%) than persons who participated remotely.

Moreover, in-person participants were more commonly required to wait one hour or more

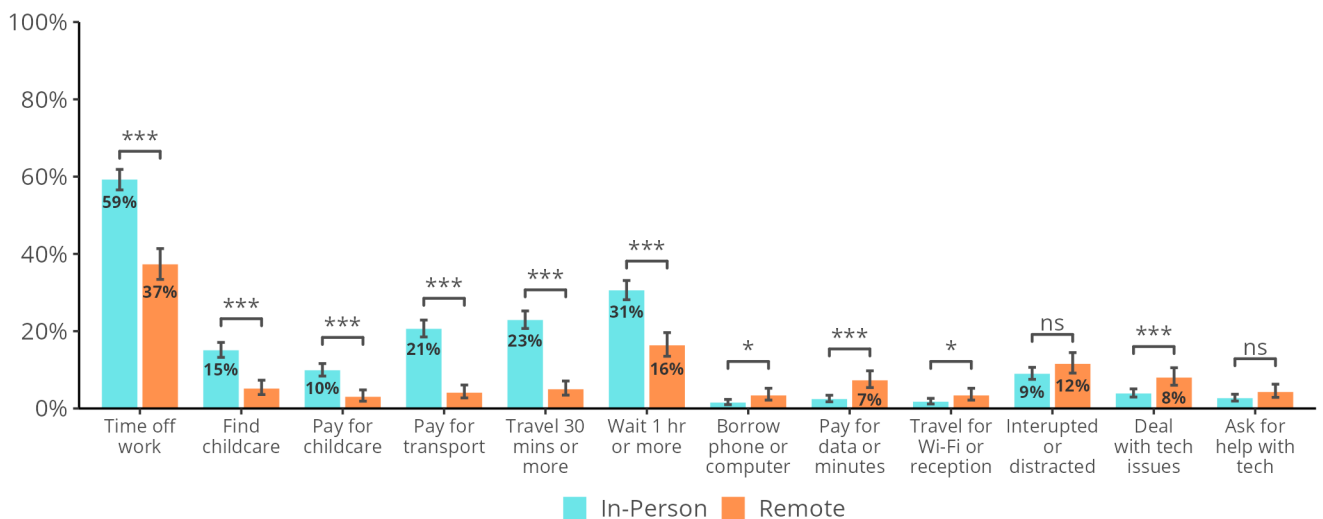
for their hearings than remote participants (*In-person*: 31% vs. *Remote*: 16%). The latter trend may reflect more precise scheduling enacted by remote courts. For example, some remote courts allowed participants to log in during the precise part of the hearing when their case is called, rather than requiring them to wait in court for more than an hour until their case is called.

Even so, we observed that remote participants confronted new kinds of structural barriers, rarely encountered in person, primarily technology-related. These barriers included the need to *pay for data/minutes* (*In-person*: 2% vs. *Remote*: 7%), *travel for Wi-Fi access or cell reception* (*In-person*: 2% vs. *Remote*: 3%), *borrow phones or computers* (*In-person*: 2% vs. 3%), and contend with *other technological problems* (*In-person*: 4% vs. *Remote*: 8%). However, the prevalence of these new technology-related

barriers was considerably less than that of the above-mentioned structural barriers.

In short, for many unrepresented parties, accessing court remotely decreased structural barriers encountered by those who attended court in person and provided conveniences. These conveniences included reducing time off work, traveling, and childcare burdens. At the same time, a smaller percentage of litigants, including perhaps the most technologically disadvantaged persons, reported new barriers to participation not encountered by those who attended court in person. As a result, these persons may experience the decision to participate in-person/remotely as a tradeoff: attending remote proceedings affords the conveniences described. Still, it may entail other barriers, such as the need to borrow a phone/computer or travel for Wi-Fi.

Figure 3.1: Most structural barriers were less common for remote than in-person parties; however, remote hearing brought new technology-access barriers.



*** $p < .001$, ** $p < .01$, * $p < .05$

Fig. 3.1. Remote participants, relative to in-person participants, less frequently reported the following: taking time off work, $OR = 0.41$, $SE = 0.10$, $p < .001$, needing to find childcare, $OR = 0.31$, $SE = 0.21$, $p < .001$, paying for childcare, $OR = 0.28$, $SE = 0.26$, $p < .001$, paying for transportation, $OR = 0.16$, $SE = 0.22$, $p < .001$, traveling 30 minutes or more for hearing, $OR = 0.18$, $SE = 0.21$, $p < .001$, and waiting an hour or more for hearing, $OR = 0.44$, $SE = 0.13$, $p < .001$. However, remote participants, relative to in-person participants, more frequently reported the following issues: needing to borrow a phone or computer, $OR = 2.26$, $SE = 0.32$, $p = .012$, paying for data or minutes, $OR = 3.15$, $SE = 0.24$, $p < .001$, traveling for WiFi or cell reception, $OR = 1.96$, $SE = 0.31$, $p = .032$, and dealing with technological issues, $OR = 2.15$, $SE = 0.21$, $p < .001$. Remote participants and in-person participants did not statistically differ in dealing with interruptions, $OR = 1.32$, $SE = 0.16$, $p = .086$, or asking for help with technology, $OR = 1.63$, $SE = 0.27$, $p = .071$.

Locations From Which Remote Hearings Were Accessed

We also asked court users to indicate the location where they accessed court remotely. Options included their home, workplace, a friend or family member's home, lawyer's office, official remote hearing site, car, shelter, or another location.

Nearly 60 percent of remote participants attended their hearings from home, while 22 percent attended from their workplace. Stated another way, over 80 percent of persons accessing court remotely did so from home or work. The remaining 18 percent of remote participants accessed proceedings from cars (6%), homes of family or friends (5%), other locations (4%), remote hearing sites established by courts (2%), and shelters (1%).

Nearly 60 percent of unrepresented persons attended remote hearings from home, reducing travel needs for many and childcare burdens

for some. For these litigants, when coupled with the data on geographic dispersion reported in Appendix 2, remote proceedings reduced the burden of traveling between 2 and 10 miles (*Mdn* = 4.0 miles, *IQR*: 1.9 - 10.0). Relatedly, approximately 22 percent accessed remote hearings directly from their workplace, decreasing the need to take time off work and travel.

Taken together, over 80 percent of unrepresented persons accessed court remotely from their home or workplace, and remote litigants less frequently reported participation barriers than in-person litigants, such as employment, transportation, and childcare burdens. At the same time, another 18 percent of unrepresented persons—potentially disadvantaged participants—accessed remote hearings from more challenging locations. Relatedly, some disadvantaged participants also encountered new barriers when attending court remotely not faced by those attending court in person.

Locations from which unrepresented people accessed online civil courts

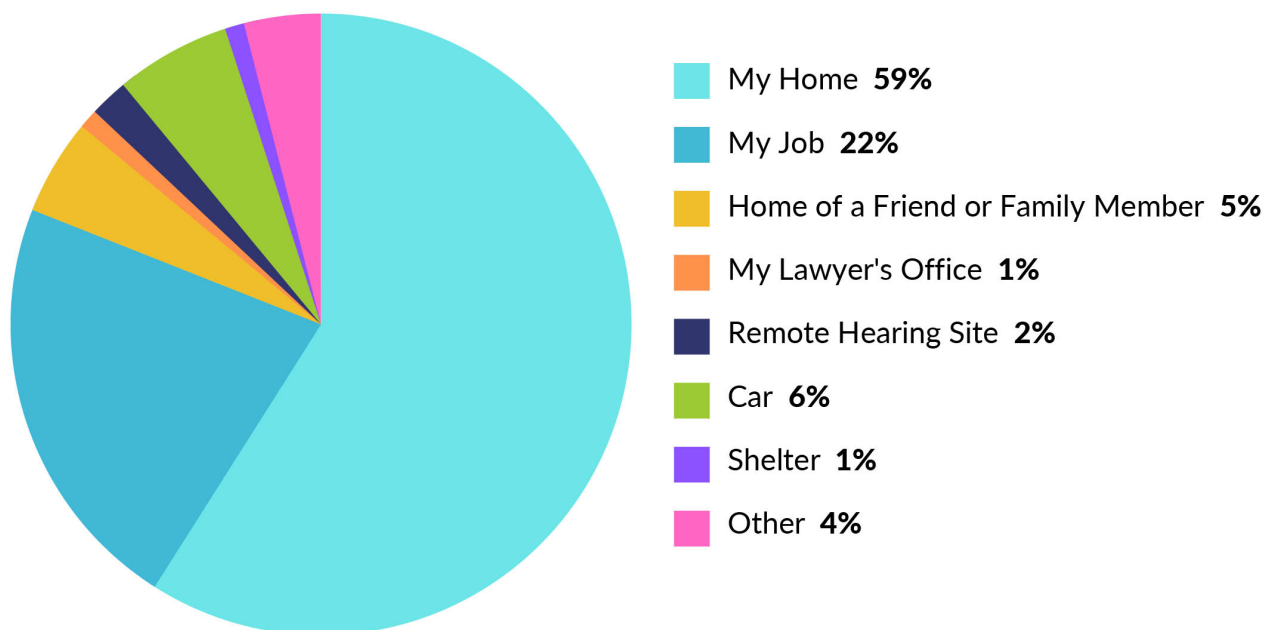


Fig. 3.2

Technological Affordances and Barriers

Remote participation also entails technological affordances and barriers. Past research has revealed two divergent trends. On the one hand, remote participation broadens access and provides convenience as most members of the public possess smartphones and internet-connecting devices. On the other hand, digital divides impair the availability of high-speed internet and mobile data, the functionality of smartphones, and the ability to maintain consistent connectivity.

Understanding technological affordances and barriers, especially those confronted by the most technologically vulnerable who access remote proceedings, is therefore essential. This report investigates whether these affordances and barriers impact unrepresented litigants and lawyers, the disadvantaged and advantaged, differently.

This section has three parts: 1) first, we explore the devices used to access remote hearings, the availability of high-speed internet, concerns about mobile/cellular data, and confidence reported by unrepresented persons when accessing remote hearings with their devices; 2) second, we assess the prevalence of technological challenges in remote hearings and their impact on the parties; and 3) and finally, through observations of archived Zoom hearings, we examine the existence of technological asymmetries and imbalances in both the devices used and the prevalence of challenges in these hearings, especially between litigants and lawyers.

Devices and Technology Used to Access Remote Hearings

At least two conditions are necessary to enjoy the capabilities of Zoom/Webex fully. First, court users need a high-quality internet-connecting device, such as a computer, laptop, or smartphone. Second, court users need high-speed internet access, and when high-speed internet access is unavailable, sufficient mobile data to access these hearings. These predicates raise several questions centering on the digital divide, including: 1) what kind of devices court participants use when accessing remote proceedings; 2) whether these court users have high-speed internet access available at home; 3) if not, whether they have concerns about using cell phone data to access these hearings; and finally, 4) how confident they are when using their devices to access these remote proceedings?

We included three measures in the experience sampling platform to index digital divide issues. First, unrepresented persons indicated the device used to attend remotely (*i.e.*, “Which of the following did you use to attend your most recent court hearing?”) and selected among internet-connecting devices, including a desktop, laptop, smartphone, tablet computer, non-smartphone mobile, and other devices. Second, they indicated whether they had high-speed internet service at home (“Do you have internet service at home?”) and selected three options: “Yes, high-speed broadband service (DSL, cable, fiber);” “Yes, dial-up access.” and “No internet service at home.” Third, they indicated whether they had any concerns about running out of mobile data (“How concerned, if at all, are you about running out of mobile data this month?”) (1 - I often run out of data to 4 - I have unlimited data.)

Because prior sections examine experience gaps between unrepresented plaintiffs and defendants, we report our findings with these groups in mind. In general, however, the patterns for these two groups did not differ in this report section; therefore, we present figures that aggregate across these groups.

Most unrepresented plaintiffs and defendants (Overall = 70%, Plfs. = 68%, Dfs. = 71%) accessed remote hearings on smartphones. To a much lesser extent, unrepresented persons used laptops (Overall = 18%, Plfs. = 19%, Dfs. = 17%) and desktops (Overall = 5%, Plfs. = 5%, Dfs. = 6%).

Smartphones reduce the ability to open multiple files and applications for review and sharing simultaneously compared to laptops and desktops. Therefore, digital asymmetries may exist when unrepresented litigants who are smartphone users confront those who are computer users in remote court. Relatedly, digital asymmetries may exist when these litigants encounter technologically advantaged lawyers in remote hearings. However, these asymmetries do not appear to differ between plaintiffs and defendants *per se*. Instead, these asymmetries appear when more technologically advantaged parties confront disadvantaged parties in remote hearings.

Next, we turn to high-speed internet in the home. High-speed internet access was available to most unrepresented plaintiffs and defendants who accessed court remotely (Overall: 78%, Plfs. = 82%, Dfs. = 75%). While not statistically significant, trends indicated that unrepresented defendants and plaintiffs might differ in their lack of access to high-speed internet (Overall: 22%, Plfs. = 18% vs. Dfs. = 25%, $p = .087$).

Third, as litigants lacked internet access in the home, we examined participants' concerns about running out of cellular/mobile data. On this aspect of the digital divide, unrepresented defendants more frequently expressed worries about running out of data (*i.e.*, reporting sometimes or often running out of data) than unrepresented plaintiffs (Overall: 18%, Plfs. = 13% vs. Dfs. = 21%; $p = .021$).

Figure 3.3: Most parties joined remote hearings via smartphones.

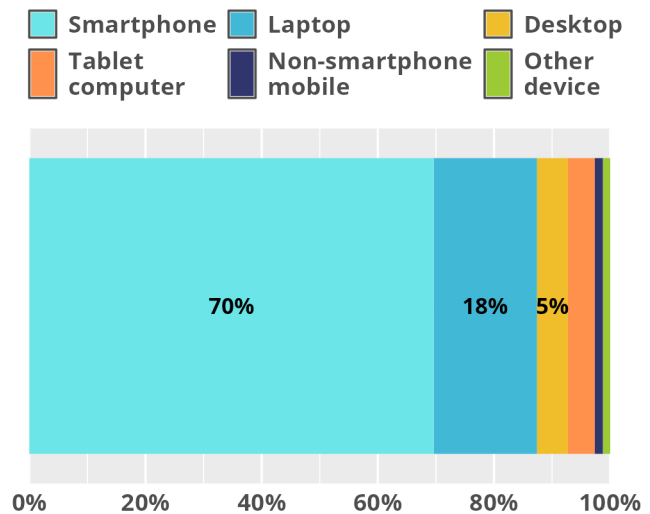
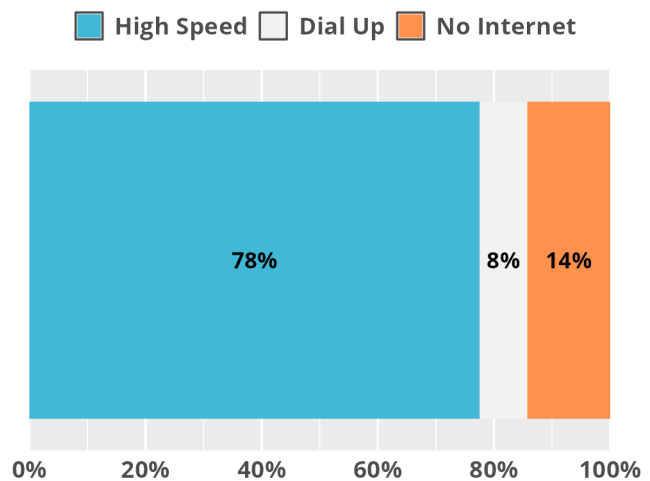


Figure 3.4: Over 20% of remote parties lacked high speed home internet.



Finally, we explored digital divides in court participants' confidence with the device they used to connect to remote hearings. Here, we measured participants' confidence in using their device to attend their hearing ("Overall, how confident, if at all, did you feel about using the device that they used to attend the court hearing?") (1 = not all confident - 5 = extremely confident).

In the aggregate, 78 percent of remote participants expressed high levels of confidence

in using their device to access court remotely (extremely-very confident, 78%, $n = 44,035$), and 22 percent had reservations (moderately-slightly-not at all confident, 22%, $n = 1,220$). We observed comparable levels of confidence and concern among unrepresented plaintiffs and defendants. These patterns underscore digital divides among technologically advantaged and disadvantaged unrepresented persons. However, at least in this sample, these divisions did not reliably vary based on positionality as an unrepresented plaintiff/defendant.

Figure 3.5: Most remote parties had unlimited cellular data.

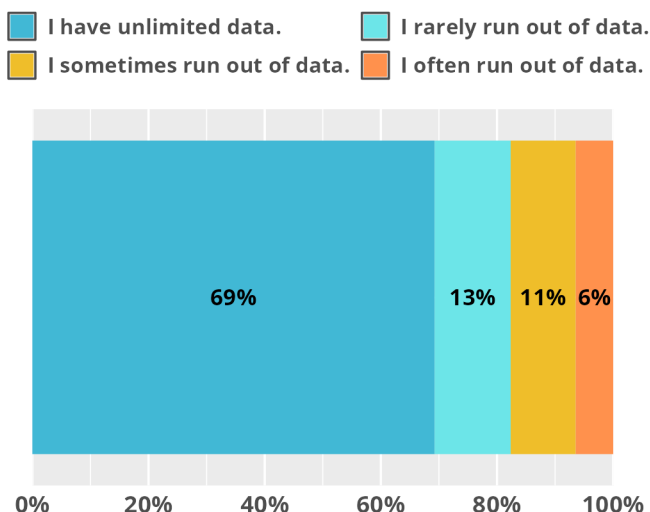
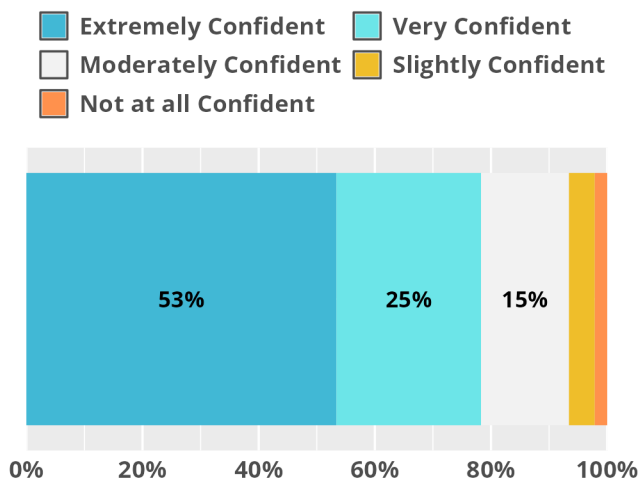


Figure 3.6: More than 20% of remote parties had reservations about using device.



Taken together, although remote hearings enabled unrepresented persons to access court from their homes and workplaces, we also observed digital disparities relating to devices, internet/data connectivity, and confidence in using these devices to access remote hearings among unrepresented persons in this sample.

Although most unrepresented persons accessed court remotely using their smartphones, an advantaged few attended these proceedings with more robust capabilities on desktops and laptops. Further, while most unrepresented persons had high-speed internet access at home, a substantial minority did not. Coupled with these patterns, although most participants had unlimited mobile/cellular data, many others—more frequently unrepresented defendants—had concerns about running out of data. Finally, while most unrepresented participants expressed confidence in participating in court with their device, again, a substantial minority voiced concerns.

These patterns suggest that digital divides exist between technology-advantaged and technology-disadvantaged persons within online civil courts. Notably, while these divides appear between technologically advantaged

and disadvantaged unrepresented persons, they do not appear to differ between plaintiffs and defendants as such.

Technological Difficulties During Remote Hearings

We next sought to explore the prevalence of technological difficulties in these remote proceedings and whether these difficulties are comparable for unrepresented plaintiffs and defendants. We also sought to investigate the impact of these challenges and whether the impact of these difficulties is comparable for unrepresented plaintiffs and defendants. To measure technological challenges, we asked participants to report whether they faced technological difficulties during their remote hearing (“Did you have any technical difficulties or problems with the [device] during your court hearing?”), and provided three responses: *Yes*, *No*, and *Unsure*.

Overall, participants reported that technological difficulties seldom occurred during their hearings. Indeed, 89 percent (89%, $n = 503$)

of remote participants indicated that they did not face technological difficulties, whereas 11 percent indicated either that technological difficulties or problems occurred or they were unsure (*Yes*: 9%, $n = 51$; *Unsure*: 2%, $n = 9$). We observed a comparable prevalence of these difficulties among unrepresented plaintiffs and defendants (Overall: 9%, Plfs. = 8%, Dfs. = 9%).

How might these self-reported technological difficulties and challenges impact proceedings? To answer this, we included a measure specific to participants ($n = 60$) who answered *Yes* or *Unsure* on the presence of technological difficulties and challenges. This item assessed the impact of technological difficulties (“How much did technical difficulties interfere with your ability to do well during the court hearing?”) (1-not at all to 5-extremely).

Overall, 67 percent of these remote participants indicated that technological challenges and difficulties faced during the hearing interfered with their ability to do well (*extremely-very-moderately*, 67%, $n = 40$), while 33 percent indicated that these technological difficulties

Figure 3.7: 10% of remote parties had device issues during the hearing.

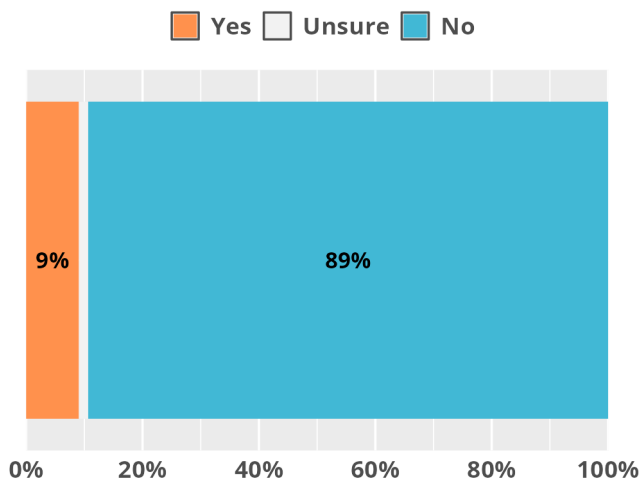
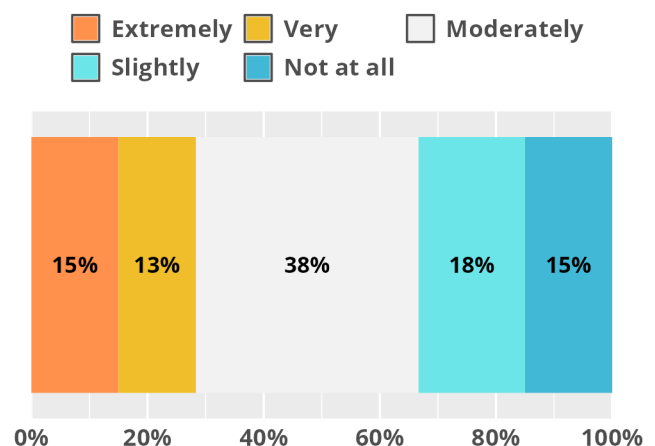


Figure 3.8: Nearly 70% of parties who had issues felt that these issues impacted their ability to do well.



did not interfere with their case (*slightly-not at all*, 33%, $n = 20$).

While not statistically significant ($p = .15$), a trend suggested that unrepresented defendants may have more frequently felt that these technological challenges interfered with their cases than unrepresented plaintiffs. We add that, because of the relatively small sample sizes on the questions (*i.e.*, technological difficulties were somewhat rare), the positional impact of these technical challenges is worthy of continued study.

Structured Observations of Archived Remote Court Hearings

In Spring 2023, we engaged in over 439 structured observations of archived remote hearings in Indiana courts, matched with the experience sampling surveys provided by remote participants. The judges in the sample handle large volumes of small claims, debt collection, and eviction cases and administer these hearings on Zoom.

Method and Measures. A team of 9 law student coders at the Indiana University Maurer School of Law engaged in structured observations of $n = 150$ archived Zoom proceedings for seven Indiana judges who handled high volumes of small claims cases (*e.g.*, evictions, debt collection, small claims) online. These archived Zoom hearings occurred between May 11 - December 15, 2022. The Indiana Supreme Court's Office of Judicial Administration provided access to these archived Zoom hearings through a secure web platform. We developed a detailed coding scheme and trained these law students over the course of two weeks to implement this coding scheme.

These coders assessed multiple dimensions of the archived Zoom hearings. The first series of measures examined whether or not plaintiffs/claimants, defendants/respondents, and lawyers appeared at the hearing (*e.g.*, "Who appeared at the hearing?") (1 = Yes, 2 = No). The second series of measures examined the modality used by participants of the remote hearing (*e.g.*, "How did the parties/lawyers appear at the hearing?") (1 = In-Person, 2 = Zoom, 3 = Dialed-In). We included an in-person option as some of these Zoom hearings may have been hybrid, (*i.e.*, held both in-person and online). After the fact, however, we learned that courts rarely held these hearings hybridly. The third series of measures examined the basic features of how participants appeared in these hearings on Zoom, including whether the participants appeared from a computer (*e.g.*, "Appearing from computer?") or from a mobile phone (*e.g.*, "Appearing from mobile phone?"), whether they appeared with their cameras on or off (*e.g.*, "Camera on?") (1 = Yes, 2 = No, 3 = Unsure), and whether they appeared at the remote hearing with staged backgrounds (*e.g.*, "Staged background?"). The fourth series of measures examined the occurrence of overall video difficulties and audio difficulties within these archived Zoom hearings (*e.g.*, "Did the parties/lawyers have any video difficulties, problems, or challenges when appearing at the hearing?") (1 = Yes, 2 = No).

Data Preparation. The dataset of observations included $n = 150$ archived Zoom hearings observed by these nine coders. At least two coders coded each archived Zoom hearing, while most were coded by three. We again developed an inter-rater coding strategy in which data were retained for analysis when most coders agreed on their observations. In most instances, coders agreed. After

aggregating across the unique coding of these cases, 150 Zoom hearings remained, a set composed of eviction cases ($n = 56$), family law cases ($n = 35$), and small claims/debt collection cases ($n = 59$).

Results. Appearance Rates. We first analyzed the prevalence of failures to appear in these archived Zoom hearings. Plaintiffs failed to appear in 4% of cases ($n = 6$), and defendants failed to appear in 21% ($n = 31$). This failure-to-appear rate was considerably lower than default rates reported elsewhere in the literature. We believe this reflects the sampling strategy used to gather these archived Zoom hearings, which centered on surveys about hearings from *parties who attended their proceedings*. Specifically, coders watched archived Zoom hearings tied directly to responses in our experience sampling platform by remote participants. Hence, the failure-to-appear rates in this sample may reflect scenarios in which plaintiffs participated in our experience sampling platform but where defendants whom they litigated against failed to appear in court.

Representational Asymmetries. We next analyzed the prevalence of representation among the parties. We categorized parties as represented when a lawyer appeared in their case. Consistent with the literature,⁵² a large percentage of the hearings in which both parties appeared involved asymmetries in which plaintiffs were represented and defendants were not ($n = 64$, 43%). Defendants were rarely represented ($n = 13$, 9%). Both parties were unrepresented in 43% of cases ($n = 64$, 43%).

Our past report⁵³ observed a much higher prevalence of modality asymmetries in online hearings, (*i.e.*, cases in which one party

accessed via Zoom, while another dialed in). The modality symmetries observed in the present sample may be attributable to our data collection strategy, the time that has passed since the start of the global pandemic, and the increased use of Zoom, leading to increased familiarity and saturation of these technologies. We encourage courts to use the detailed data available on Zoom's platform (which we did not possess) to examine the prevalence of these modality asymmetries in further detail.

Technological Asymmetries. We next explored the extent to which technological asymmetries existed among unrepresented plaintiffs, unrepresented defendants, and lawyers. We shifted the focus of our analysis from the level of the hearing ($n = 150$) to the level of discrete court participants observed ($n = 295$). The sample consisted of unrepresented plaintiffs ($n = 86$), unrepresented defendants ($n = 116$), and lawyers ($n = 93$) appearing on behalf of parties. We then turned to the third series of measures, previously described, examining the basic features of how participants appeared in these hearings on Zoom (*e.g.*, whether the participants appeared from a computer or from a mobile phone) and the fourth series of measures examining the occurrence of overall video difficulties and audio difficulties within these archived Zoom hearings.

Using the third series of measures, we examined whether unrepresented plaintiffs, unrepresented defendants, and lawyers differed in the basic technological affordances used when appearing at these remote hearings. For example, to what extent did unrepresented plaintiffs, unrepresented defendants, and lawyers differ in appearing from a computer versus a smartphone, with their camera off, or with curated, staged backgrounds?

We limited the analysis to persons who appeared in these Zoom hearings (excluding those who dialed in) to address these questions. Coders identified whether persons in these Zoom hearings appeared from a computer versus a smartphone or whether they were unsure, and we applied a majority rule for retaining data. Ultimately, we observed digital asymmetry between these participants

Figure 3.9: Representational asymmetries often favored plaintiffs.

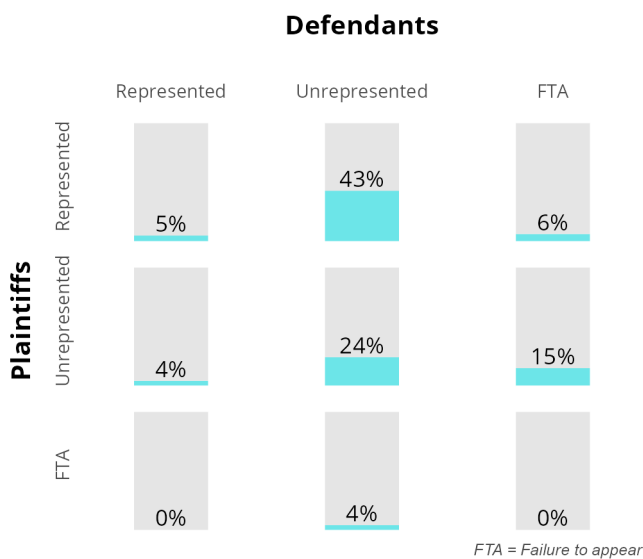
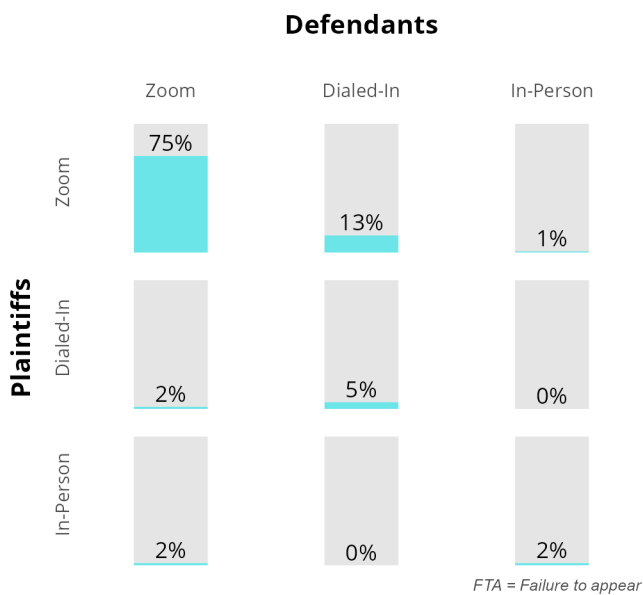


Figure 3.10: Digital asymmetries often favored plaintiffs.



in the prevalence of appearing from computers vs. smartphones. Whereas unrepresented defendants more frequently appeared from phones than computers (Dfs. phone = 58% vs. Dfs. computer = 25%), unrepresented plaintiffs were more likely to appear by computer than phone (Plfs. phone = 29% vs. Plfs. computer = 63%).

Moreover, most lawyers appeared by computer rather than phone (Law. phone = 7% vs. Law. computer = 87%). Lawyers appeared significantly more often via computer in these Zoom hearings than both unrepresented defendants ($p < .001$) and plaintiffs ($p = .020$).

These technological asymmetries are noteworthy given the affordances provided by accessing remote hearings by computer that are unavailable when dialing into hearings by phone. For example, lawyers and unrepresented plaintiffs accessing Zoom hearings from computers would have easier

Figure 3.11: Lawyers used computers much more often than unrepresented defendants.

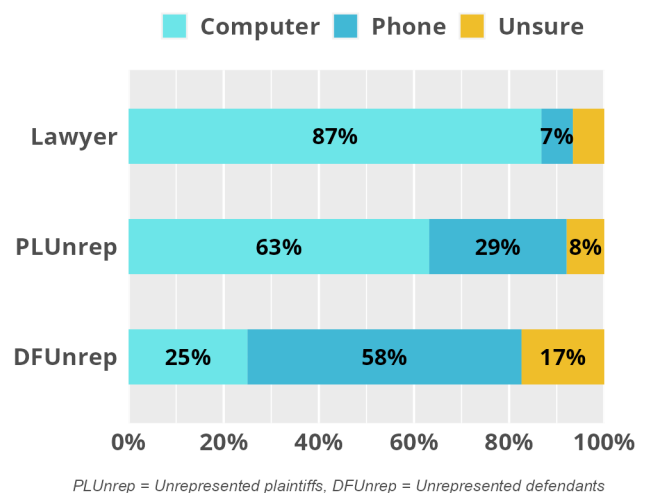


Fig. 3.11. Defendants appeared by phone more often than lawyers, $\Delta\text{prob} = 51.0\%$, $SE = 5.8\%$, $p < .001$. Plaintiffs also appeared by phone more often than lawyers, $\Delta\text{prob} = 22.3\%$, $SE = 5.8\%$, $p = .020$.

availability of documents and exhibits on their devices, and the ability to stage and create highly professional environments and backgrounds not as available to those accessing remote hearings from smartphones.

Camera Usage and Staged Backgrounds.

Therefore, we examined the extent to which these participants appeared with cameras on/off and the prevalence of staged backgrounds in these remote hearings. When attending by Zoom, most lawyers, unrepresented plaintiffs, and unrepresented defendants appeared in these remote hearings with cameras on rather than off (Law. = 93%, Plfs. = 92%, Dfs. = 84%).

Yet, the staging of how these persons appeared varied based upon these groups. Lawyers appeared far more often with staged backgrounds than both unrepresented plaintiffs ($p < .001$) or unrepresented defendants ($p < .001$) (Law. = 60%, Plfs. = 18%, Dfs. = 7%).

Technological Difficulty Asymmetries. The final set of measures examined the prevalence of video and audio difficulties among unrepresented plaintiffs, defendants, and lawyers who appeared in these archived Zoom hearings.

Although visual difficulties were infrequent, unrepresented defendants more commonly encountered video difficulties than lawyers (Dfs. = 22%, Law. = 8%, $p = .014$). However, unrepresented defendants and unrepresented plaintiffs did not reliably differ in encountering visual difficulties (Dfs. = 22%, Plfs. = .13, $p = .195$). Similarly, although audio difficulties were infrequent, once again, unrepresented defendants more commonly encountered audio difficulties than lawyers (Dfs. = 24%, Law. = 11%, $p = .040$). Again, unrepresented defendants and unrepresented plaintiffs did not reliably differ in encountering audio difficulties (Dfs. = 24%, Plfs. = 15%, $p = .261$).

Summary of Structured Review of Court Hearings Findings

A structured review of archived Zoom hearings revealed technological asymmetries among the participants, most notably between lawyers and the unrepresented defendants. Lawyers often litigated against unrepresented defendants, revealing representational asymmetries in nearly 45 percent of these cases when both parties appeared at these hearings. Although most participants matched modalities (Zoom versus dialing in by phone) and appeared by Zoom, we observed first-order technological divides in the devices used to access these hearings. Lawyers more often attended these hearings from computers/laptops than smartphones, whereas unrepresented defendants (and unrepresented plaintiffs) more often accessed these hearings

Figure 3.12: Lawyers used staged backgrounds much more often than unrepresented parties.

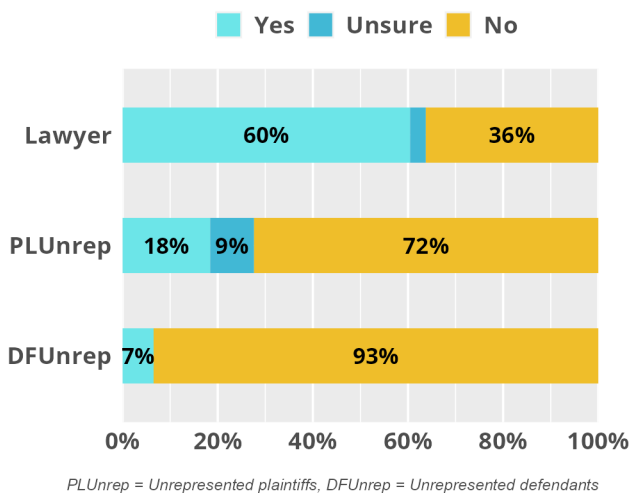


Fig. 3.12. Lawyers staged their backgrounds more often than Unrep. Dfs., $OR = 21.90, SE = 10.37, p < .001$, and Unrep. Pls, $OR = 6.77, SE = 2.47, p < .001$.

from smartphones than computers/laptops. Relatedly, we also observed that lawyers were more likely to access these hearings with curated and staged backgrounds than unrepresented persons. Finally, unrepresented defendants more frequently encountered audio and visual difficulties than the lawyers who litigate against them.

Psychological Affordances and Barriers

We now turn to psychological affordances and barriers experienced when accessing courts in person and remotely. Psychological affordances include internal resources, such as coping strategies, resilience, and social support, that enable individuals to navigate the challenges and demands of the court process effectively. These psychological affordances can enhance the well-being of unrepresented litigants and enable them to represent themselves more effectively. Conversely, psychological barriers, such as stress, social exclusion, and social identity threat, can impede the ability of litigants to engage effectively with the court system, resulting in negative experiences and outcomes. Rarely examined when studying the impact of our civil justice system, these social psychological affordances and barriers are vital to engaging in people-centered justice. These insights can inform how we design our civil justice system to ensure equitable treatment for unrepresented litigants.

Stress, Coping, and Challenge-Threat. The study of stress, coping, challenge-threat, and well-being are fundamental in understanding how people respond to demanding situations, including how they navigate court and the civil justice system.⁵⁴ Stress is the physiological and psychological responses triggered by appraising a situation as threatening.⁵⁵ Coping

encompasses people's beliefs about whether they have effective strategies to manage that stress and adapt to the challenges encountered.⁵⁶ Understanding stress, coping, and the experience of challenge and threat is crucial for comprehending court litigants' responses to stressors and developing effective interventions to promote adaptive coping and well-being in our civil justice system.

We, therefore, centered on the following two questions: 1) to what extent do stress, coping, and experiences of challenge-threat differ between unrepresented persons who attend proceedings in person versus remotely, and 2) to what extent are these experiences comparable among unrepresented plaintiffs and defendants?

On these issues, we asked unrepresented persons ($n = 1,878$) who attended in-person or remote hearings about the stress experienced during their hearing ("*How stressful was your hearing?*") and their ability to cope with that stress ("*How able were you to cope with the stress of your hearing?*") (1 = *Not at all* - 5 = *Extremely*). Consistent with prior research on challenge-threat, we divided these two items to form a challenge-threat index, with higher scores indicating a harmful stress threat orientation and lower scores an adaptive challenge orientation.

In the aggregate, unrepresented persons reported mid-levels of court-related stress and mid-levels of coping abilities, and unrepresented plaintiffs experienced less court-related stress and a greater ability to cope with that stress in court than unrepresented defendants.

That said, we again observed a significant pattern whereby these experiences of stress

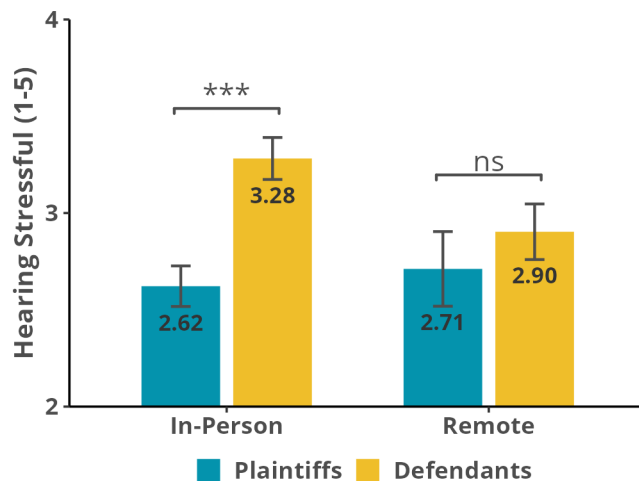
($p = .001$) differed between unrepresented plaintiffs and defendants within in-person proceedings, but where remote proceedings reduced or eliminated these stress and coping gaps. Whereas unrepresented defendants reported significantly greater stress than unrepresented plaintiffs when attending court in person (Plfs. = 2.62 vs. Dfs. = 3.28, $p < .001$), stress between these groups did not differ when attending remotely (Pls. = 2.71 v. Dfs. = 2.90, $p = ns$). A similar statistically significant interaction emerged in coping with this stress ($p = .027$). Unrepresented defendants reported a lower ability to cope with stress than unrepresented plaintiffs when attending court in person (Plfs. = 3.64 vs. Dfs. = 3.06, $p < .001$). The gap between these groups of litigants narrowed in remote hearings.

Remote proceedings also narrowed gaps on the challenge-threat index and revealed a comparable pattern of statistically significant interaction ($p = .003$). While unrepresented defendants attending court in person reported significantly greater levels of stress threat than unrepresented plaintiffs (Plfs. = 0.93 vs. Dfs. = 1.53, $p < .001$), this stress-threat narrowed in remote proceedings (Plfs. = 1.08 v. Dfs. = 1.31, $p = .029$). The narrowing of these gaps on the challenge-threat index was largely driven by the reduced stress experienced by unrepresented defendants within remote proceedings compared to those within in-person proceedings ($p = .006$).

Social Exclusion and Social Identity Threat.

Social psychological concepts of social exclusion and social identity threat are essential for understanding how people navigate social contexts and institutions.⁵⁷ Social exclusion refers to the experience of being ostracized, ignored, or rejected by others, leading to negative emotional and cognitive outcomes.⁵⁸

Figure 3.13: In-person, but not remote, parties differed in their hearing stress.



*** $p < .001$, ** $p < .01$, * $p < .05$

Fig. 3.13. Plaintiffs' and defendants' experiences of stress depended on hearing modality, $F(1, 1874) = 10.46$, $p = .001$, $\eta^2 = 0.006$. In-person Pls. and Dfs.'s reported stress differed, $t(1874) = -8.58$, $p < .001$, $d = -0.66$, but remote Pls. and Dfs.'s reported stress did not, $t(1874) = -1.57$, $p = .118$, $d = -0.19$.

In contrast, social identity threat occurs when individuals perceive a threat to their social identities, such as discrimination or stereotypes, which can evoke anxiety, self-doubt, and diminished well-being.⁵⁹ Although there is a dearth of research examining these experiences in court, understanding these effects is essential for addressing inequalities in court and promoting inclusive court environments.

Therefore, we explored 1) whether experiences of social exclusion and social identity threat among unrepresented persons who attend in-person hearings differ from those who attend remote hearings and 2) whether experiences of social exclusion and social identity differ between unrepresented plaintiffs and defendants across these modalities. Unrepresented litigants provided their experiences of social exclusion in court on two items (e.g., "During the hearing, I felt excluded.") (1 = Not at all - 5 = Extremely), which were

combined into a reliable composite ($\alpha = .90$). They then rated three items measuring the extent to which they experienced social identity threat in court (e.g., “During the hearing, I sometimes worried about being judged negatively based on my social group memberships (my race, gender, age, class, etc.)” (1 = Strongly disagree - 6 = Strongly agree), which also formed a reliable composite ($\alpha = .89$).

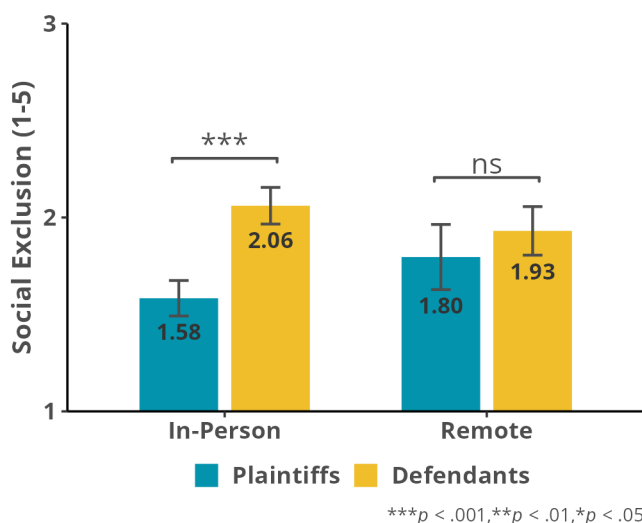
Overall, unrepresented persons reported experiencing low levels of social exclusion in court. Yet we again observed a statistically significant interaction ($p = .007$) whereby experiences of social exclusion differed among unrepresented plaintiffs and defendants within in-person versus remote proceedings. Whereas unrepresented defendants attending court in person reported significantly greater levels of social exclusion than unrepresented plaintiffs (Plfs. = 1.58 vs. Dfs. = 2.06, $p < .001$), their

experiences of social exclusion did not differ in remote proceedings (Plfs. = 1.80 v. Dfs. = 1.93, $p = .207$).

These effects are unlike some of the prior gaps between unrepresented plaintiffs and defendants. Here, unrepresented plaintiffs experienced greater indications of social exclusion in *remote* proceedings than within in-person proceedings ($p = .029$). Due to the higher experiences of social exclusion reported by unrepresented plaintiffs within remote proceedings compared to in-person proceedings, the gap in experiences of social exclusion between the groups closed within remote proceedings.

Overall, unrepresented persons reported experiencing mid-levels of social identity threat in court. Yet we again observed a statistically significant interaction pattern (p

Figure 3.14: Experience gaps in social exclusion were larger for in-person vs. remote parties.



3.14. Plaintiffs’ and defendants’ feelings of social exclusion depended on the hearing modality, $F(1, 1871) = 7.36, p = .007, \eta_p^2 = 0.004$. In-person Plfs.’ and Dfs.’ feelings of social exclusion differed, $t(1871) = -7.11, p < .001, d = -0.48$, but remote Plfs.’ and Dfs.’ feelings did not differ, $t(1871) = -1.26, p = .207, d = -0.13$.

Figure 3.15: Experience gaps in identity threat were larger for in-person vs. remote parties.

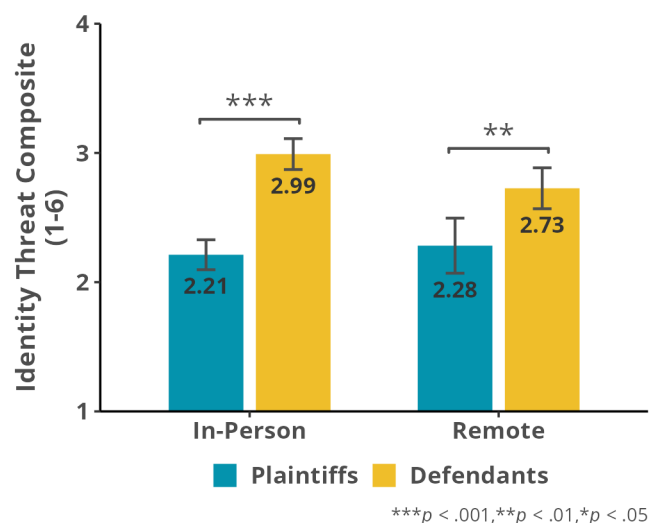


Fig. 3.15. Plaintiffs’ and defendants’ feelings of identity threat depended on the hearing modality, $F(1, 1870) = 4.39, p = .036, \eta_p^2 = 0.002$. In-person Plfs.’ and Dfs.’ experienced identity threat differed, $t(1870) = -9.18, p < .001, d = -0.78$, as did remote Plfs.’ and Dfs’ experiences, $t(1870) = -3.28, p = .001, d = -0.44$.

= .036) whereby experiences of social identity threat differed among unrepresented plaintiffs and defendants within in-person versus remote proceedings. Whereas unrepresented defendants attending court in person reported significantly greater levels of social identity threat than unrepresented plaintiffs (Pls. = 2.21 vs. Dfs. = 2.99 $p < .001$), their experiences of social identity threat narrowed in remote proceedings (Pls. = 2.28 v. Dfs. = 2.73, $p = .001$). Unlike on the measure of social exclusion, this gap narrowed because unrepresented defendants reported greater experiences of social identity threat within in-person proceedings than within remote proceedings ($p = .009$).

Although comparable interaction patterns were observed across these two measures, the narrowing of these gaps may work through different mechanisms. This raises the possibility that unrepresented plaintiffs and defendants have different concerns and needs affected by in-person and remote proceedings. As a result, remote proceedings may narrow these gaps through different mechanisms. For example, remote proceedings may remove psychological benefits that unrepresented plaintiffs experience when attending court in person. At the same time, remote proceedings may reduce the psychological friction that unrepresented defendants experience when attending court in person.

Summary

Overall, we observed many differences in the structural, technological, and psychological affordances and barriers, and a number of important similarities, between in-person and remote proceedings. First, remote proceedings reduced structural barriers that unrepresented

civil litigants often encounter. More than 80 percent of litigants were able to attend court from home or work, easing the challenges of travel, childcare, and court delays. Furthermore, remote proceedings were generally free from major technological challenges, with over 90 percent of unrepresented litigants reporting no technological problems. However, as will be discussed in Part IV below, they undermined the court process when these challenges arose. Further, there were hints in the data that unrepresented defendants – often on the “have not” side of the digital divide – were more likely to suffer from technological disruptions. Finally, remote courts appear to attenuate real differences in negative psychological experiences often faced by unrepresented defendants. Unrepresented defendants were more likely than unrepresented plaintiffs to report feeling excluded, ostracized, stressed, or under psychological threat from in-person proceedings. Remote proceedings meaningfully attenuated these effects. Taken together, remote proceedings appear to provide meaningful relief, especially for unrepresented defendants, from the structural and psychological challenges created by courts, but do create novel technological challenges, as will be discussed in Part IV below.

Part IV: Digital Divides and Challenges in Remote Proceedings

Overview

In Part IV, we review notable findings featured in prior sections of this report that center on unrepresented litigants' challenges in remote proceedings. We first examine the risk factors associated with unrepresented litigants' challenges. Second, we explore the relationship between these challenges and other downstream consequences that affect experiences of justice and trust in institutions. By highlighting these risk factors and challenges in remote hearings, we seek to encourage interventions that address these challenges, making the benefits of remote hearings more widely available to unrepresented litigants in online civil courts.

Risk Factors of Challenges in Remote Proceedings

In this section, we conceptualize “challenges” in remote proceedings as the interrelated experiences of stress, technological difficulties, and lack of confidence in the device used to access these online civil proceedings.

Recall that stress is a physiological and psychological response prompted by adversity in one's environment. Although moderate levels of stress can be helpful to catalyze behavior,⁶⁰ when stress cascades into a psychophysiological experience of threat, this threat impairs one's ability to navigate court hearings effectively.⁶¹ Next, while minor technical difficulties may not impact the fairness of remote hearings, unrepresented

litigants frequently reported that, when technological difficulties do occur, they interfere with the ability to do well in court.⁶² Finally, while confidence in one's device does not ensure success, worrying about one's device may amount to psychological friction that disadvantages unrepresented litigants who lack confidence in their devices while attending online civil courts.⁶³

For these reasons, we conceptualize stress, technological difficulties, and device-related confidence as challenges, and we explore the risk factors associated with these challenges. In doing so, we explore the relationship between structural-level, technological-level, and litigant-level factors and these challenges. Because these risk factors are highly interrelated, and because these analyses are exploratory, we conduct correlation analyses and present the correlation matrices below.

Measures.

Structural-Level Risk Factors. First, we created an index of hardships confronted by unrepresented litigants. Recall that unrepresented litigants selected among 12 potential barriers and responded to the prompt, “*Did you do, or deal with, any of the following to attend your recent hearing? (select all that apply or none of the above).*”⁶⁴ Six of these hardships included employment (e.g., taking time off work), childcare (e.g., finding childcare), transportation (e.g., traveling 30 minutes or more), waiting time (e.g., waiting an hour or more) barriers (see Figure 3.1). Therefore, we formed an index of these structural hardships by summing responses across these

6 barriers (0 = *No barriers* - 6 = *All structural barriers presented*). As a result, this index represents the cumulative structural hardship an unrepresented litigant encountered (but overcame) to attend court remotely.

Technological-Level Risk Factors. Next, we developed an index of the technological hardships encountered by unrepresented litigants, a proxy for whether an unrepresented person was on the “have-not” side of the digital divide. We again turned to the 12 potential hardships discussed above, but this time centered on the four barriers that were primarily technology related, including 1) needing to borrow a phone/computer, 2) paying for data/minutes, 3) traveling for internet/cell access, and 4) dealing with interruptions or distractions. Recall that unrepresented persons also indicated 5) whether or not they had internet access at home and 6) the unlimited/limited nature of their data plans. We developed an index by summing responses across these six technological items (0 = *No technological hardship* - 6 = *All technological hardships presented*).⁶⁵ This index represents a measure of the cumulative technological hardships unrepresented litigants faced when accessing court remotely, with higher scores reflecting the “have-not” side of the digital divide.

Litigant-Level Risk Factors. Third, we incorporated four additional indexes available on the experience sampling platform: an index of economic hardship, the Perceived Stress Scale, a digital literacy composite, and whether an unrepresented person self-reported a disability.

Economic Hardship. The platform included an index of economic hardship. Unrepresented litigants selected among eight potential

economic adversities, responding to the prompt, “*In the last 12 months, have any of the following happened to you or someone in your household?*” (select all that apply or none of the above) (e.g., *Having trouble and paying for medical care*).⁶⁶ We formed an index by summing responses across these eight adversities (0 = *No economic difficulties* - 8 = *All economic hardships presented*). This index represents an unrepresented litigant’s economic hardship when attending an online civil court.

Perceived Stress Scale. Unrepresented litigants rated their experience of perceived life stress on four items (e.g., “*In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?*”), which formed a composite of the Perceived Stress Scale ($\alpha = .68$). The Perceived Stress Scale is a widely used psychological scale that measures the stress experienced and appraised by individuals and is associated with their physical and mental well-being.⁶⁷

Digital Literacy. Unrepresented litigants also indicated how well they used a list of devices and computer programs, which we formed into an index of digital literacy. Specifically, they rated their ability to use five devices/programs (i.e., “*How well are you able to use a computer | smartphone | Zoom | Internet | email?*”) (1 = *Not at all well*, 5 = *Extremely well*), which formed a reliable composite of digital literacy ($\alpha = .91$).

Disability. As previously described, unrepresented litigants also self-reported whether they had a disability.

Smartphone Usage. Unrepresented persons indicated the kind of device used to access remote hearings. We previously reported that approximately 70 percent of these court users

accessed remote hearings on smartphones. We included this variable to explore whether smartphone usage correlates with the above-mentioned risk factors.

Results.

Structural-Level Risk Factors. We first examined the correlation between the cluster of measures reflecting challenges in remote proceedings and the index of structural hardship. Structural hardship was associated with greater stress in remote hearings ($r = .22, p < .001$), more technological difficulties in remote proceedings ($r = .09, p = .034$), and a lack of confidence in the device used to access the hearing ($r = -.16, p < .001$). These items suggest that unrepresented litigants confronting compounding structural hardships are at increased risk of facing challenges in remote hearings.

Technological-Level Risk Factors. We then examined the correlation between the cluster of measures reflecting challenges in remote proceedings and the index of technological hardship. Technological hardship was associated with stress in remote hearings ($r = .23, p < .001$) and technical difficulties in remote proceedings ($r = .27, p < .001$). These hardships were also associated with a lack of confidence in one's device ($r = -.38, p < .001$). These relationships suggest that unrepresented litigants who face greater technological adversity are at greater risk of encountering challenges in remote proceedings.

Individual-Level Risk Factors. We next examined the relationships between these challenges in remote proceedings and the individual-level hardships reported on the platform, including economic hardship, the Perceived Stress Scale, digital literacy, and self-reported disability. Turning first to economic

hardship, economic adversity was associated with greater stress in remote hearings ($r = .22, p < .001$), encountering greater technological difficulties ($r = .17, p < .001$), and a lack of device confidence ($r = -.16, p < .001$).

Regarding the Perceived Stress Scale, the life stressors were associated with experiencing remote hearings as more stressful ($r = .35, p < .001$), technological difficulties in remote proceedings ($r = .08, p = .049$), and a lack of device confidence ($r = -.14, p = .001$).

Greater digital literacy was associated with less technological difficulty in these hearings ($r = -.14, p = .001$) and greater device-related confidence ($r = .28, p < .001$) but was not related to experiencing stress in these hearings ($r = -.03, p = .434$). Further, unrepresented litigants who reported a disability experienced greater stress in these remote proceedings ($r = .16, p < .001$) and experienced less device-related confidence during the hearing ($r = -.11, p = .009$), but they did not report greater technological difficulties ($r = .03, p = .521$).

Smartphone Usage. We last examined the relationship between these challenges in remote proceedings and smartphone usage. We found that using a smartphone to access these remote hearings was not related to experiencing stress in remote hearings ($r = -.02, p = .647$) technological difficulties ($r = -.01, p = .787$), or a lack of device confidence ($r = -.05, p = .273$). This is an important finding as it suggests that smartphone usage does not inherently result in challenges in these hearings. Given the prevalence of smartphones used to access these hearings, this seems reasonable. Instead the intersection of these other structural, technological, and individual-level risk factors coupled with devices used to access these

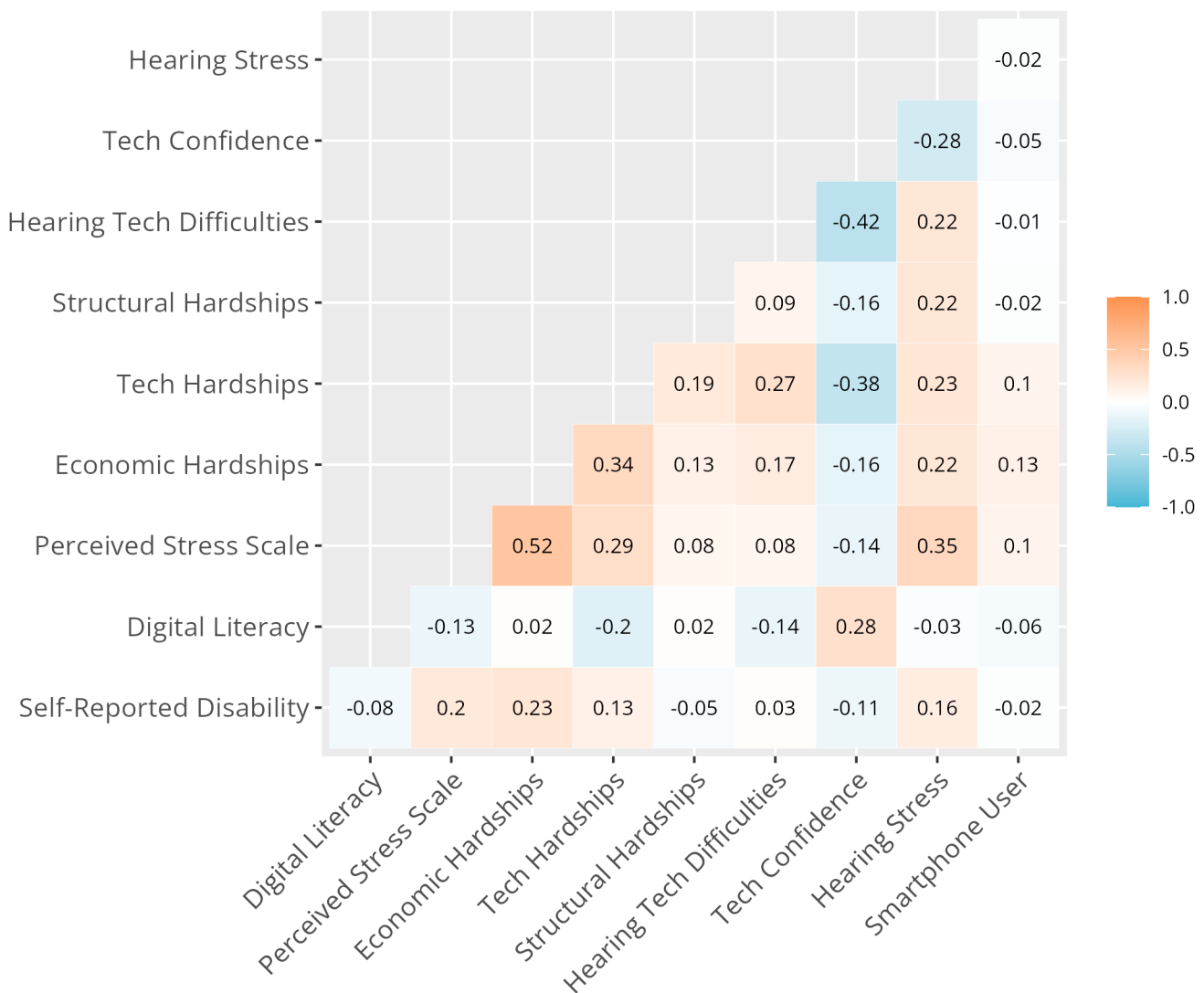
hearings may better account for challenges and difficulties in online civil courts.

Discussion.

To summarize, this analysis underscores that identifying the structural-level, technological-level, and individual-level hardships that unrepresented litigants face may assist courts in understanding who is at greater risk of challenges in online civil proceedings. We found that smartphone usage does not inherently lead to challenges in remote proceedings. Rather, our analysis revealed a web of intercorrelated hardships that may help courts understand

the persons at the most risk of challenges when accessing remote proceedings (and likely when attending in-person proceedings as well). For example, unrepresented persons most vulnerable to economic hardship and compounding life stress are at increased risk of challenges in online civil courts. Unrepresented persons who grapple with limited digital literacy and disabilities are also at risk. At present, this analysis is exploratory, and understanding how these hardships and adversity compound into challenges in court requires future study.

Figure 4.1: Correlation Matrix of Risk Factors of Challenges in Remote Hearings



Consequences of Challenges in Remote Proceedings

Finally, we examine the consequences of challenges in remote proceedings, again conceptualizing these challenges as the interrelated experience of stress, technological difficulties, and a lack of confidence in the device used to access online civil courts. We examine how the measures previously reported in the study and two additional measures—trust in courts and hesitancy about attending court in the future—relate to these challenges in online civil courts. We again conduct an exploratory correlation analysis and present the full correlation matrix below.

Measures.

For this analysis, we included three measures discussed in Part II of the report: procedural justice, bureaucratic hassles, and outcome satisfaction. We also included two measures discussed in Part III: social identity threat and social exclusion. The experience sampling platform also incorporated two additional measures, which we included: trust in courts and court hesitancy.

Shortly after court hearings, unrepresented litigants indicated their trust in courts on four items (e.g., “Courts can be trusted to do what’s right for my community.”) (1 = *strongly disagree* - 6 = *strongly agree*), which formed a reliable composite measure of trust in courts ($\alpha = .92$).⁶⁸ This trust-in-courts index is vital, especially in the present day when courts aspire to design people-centered processes that engender trust among members of the public. On a single measure of court hesitancy, these litigants also rated their hesitation, in light of their recent court experience, about going to court in the future (“Based on my recent experience, I’m

thinking that I won’t show up to court next time.”) (1 = *strongly disagree* - 6 = *strongly agree*).

Results.

Stress In Court. We first explored the relationship between experiencing greater stress in court and this battery of consequences that matter to courts. We found that greater stress in remote proceedings is associated with negative experiences of procedural justice ($r = -.45, p < .001$), increased feelings of bureaucratic hassles ($r = .58, p < .001$), greater levels of social identity threat ($r = .46, p < .001$), greater social exclusion in court ($r = .53, p < .001$), lower levels of satisfaction in court outcomes ($r = -.30, p < .001$), lower levels of trust in courts ($r = -.38, p < .001$), and greater hesitancy about attending court in the future ($r = .23, p < .001$). To our knowledge, this is one of the first studies revealing that stress in court is associated with such a broad array of negative consequences on litigants’ court experiences on measures of concern to courts, including trust in courts and hesitancy about appearing in court in the future. While this analysis centered on stress in online civil courts, recall that stress in these remote proceedings is considerably lower than within in-person proceedings.

Technological Difficulties During Remote Proceedings.

We next explored the relationship between technological difficulties in remote proceedings and the cluster of consequences that matter to courts. We found that grappling with technological difficulties in one’s remote hearing is associated with negative experiences of procedural justice ($r = -.27, p < .001$), increased feelings of bureaucratic hassle ($r = .23, p < .001$), greater social identity threat ($r = .19, p < .001$), greater social exclusion in court ($r = .27, p < .001$), lower levels of trust in courts ($r = -.19, p < .001$), and greater hesitancy about going to court in the future ($r = .13, p = .003$).⁶⁹

While infrequent in the aggregate, when they occur, these technological difficulties correlate with multiple dimensions of concern to courts.

Lack of Confidence in Device Used to Connect to Remote Proceeding. We next explored the relationship between lacking confidence in one's device used to access the remote court hearing and this array of consequences that matter to courts. We found that having confidence in one's device was associated with positive experiences of procedural justice ($r = .38, p < .001$), decreased feelings of bureaucratic hassles ($r = .31, p < .001$), lower levels of social identity threat ($r = -.24, p < .001$), lower social exclusion in court ($r = -.29, p < .001$), greater levels of satisfaction in court outcomes ($r = .26, p < .001$), greater trust in courts ($r = .26, p < .001$), and lower hesitancy about going to court in the future ($r = -.23, p < .001$). Those who lacked confidence experienced the opposite pattern. These findings depict a concerning landscape. While the conveniences of remote hearings are many and notable, those on the "have-not" side of the digital divide who have concerns about attending these hearings with their devices risk many of the justice experience benefits available to those on the have side of the digital divide.

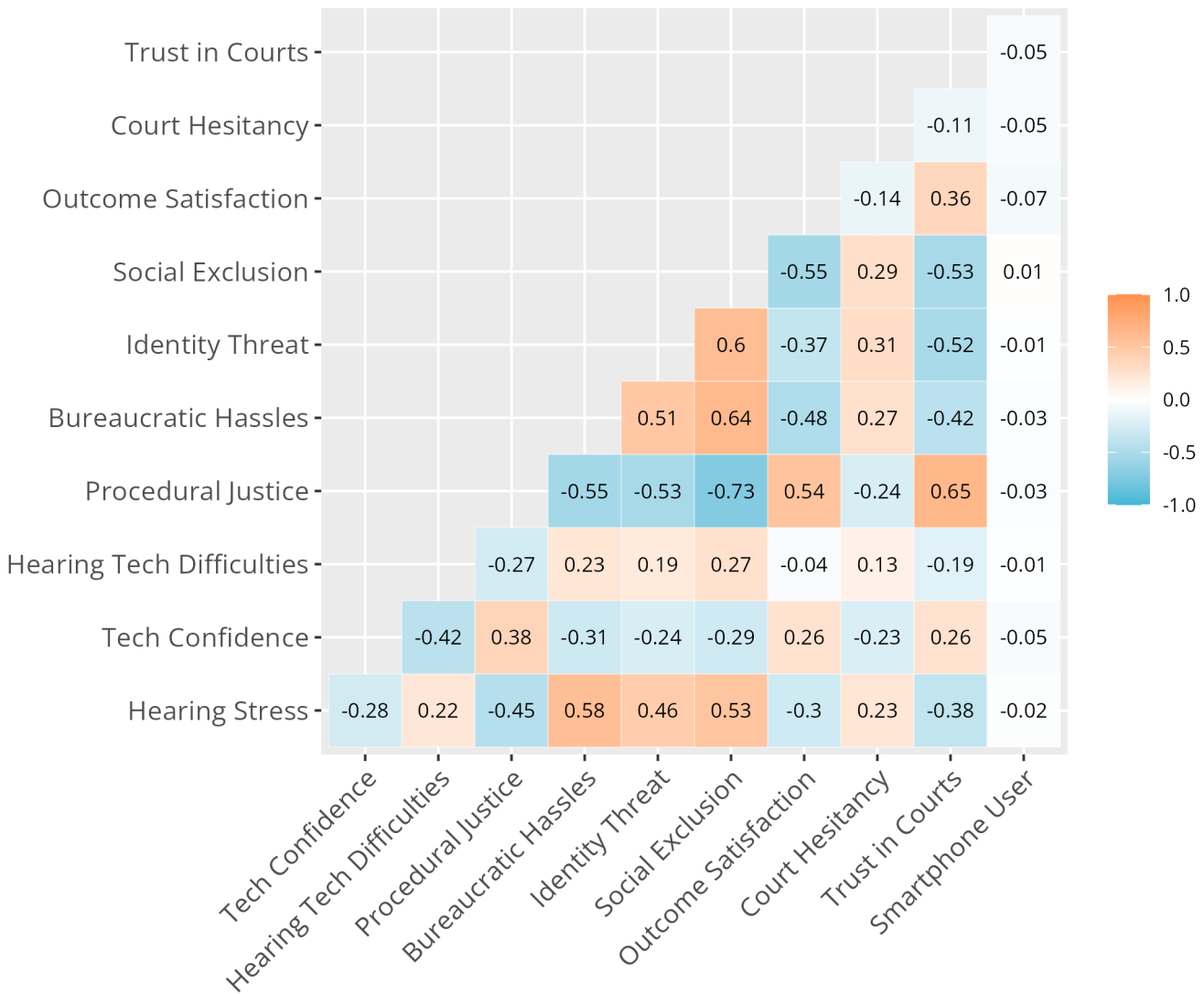
Smartphone Usage. We last explored the relationship between using a smartphone to attend one's remote hearing and the dimensions mentioned above of concern to courts. Ultimately, we found that using a

smartphone to access one's remote hearing did not correlate with any of these dimensions measuring the experience of justice.

Discussion.

This exploratory analysis reveals that challenges in remote proceedings cascade to impact multiple measures of concern to courts. Stress in court, technological difficulties in remote proceedings, and lacking confidence in one's device are associated with decreased justice experiences, increased feelings of identity threat and social exclusion, and diminished trust in courts, including hesitancy about attending court in the future. These findings suggest that unrepresented litigants who experience technological difficulties in remote proceedings, and unrepresented litigants on the have-not side of the digital divide are at risk of leaving court with these negative experiences and less trust in courts. Yet using a smartphone to access a remote proceeding does not, in and of itself, inherently impair the experience of justice in a remote proceeding. We believe this underscores the importance of identifying risk factors for these challenges and continuing to iterate and improve upon remote proceedings to diminish these risks and make the conveniences of these remote hearings broadly available to all persons. A critical lesson for the future will be reducing stress for unrepresented litigants within in-person proceedings, a notable benefit of adopting remote proceedings.

Figure 4.2: Correlation Matrix of Consequences of Challenges in Remote Proceedings



Summary

Although our findings in Parts II and III indicate that remote proceedings often afford a more convenient, lower-stress experience for unrepresented parties, especially for unrepresented defendants, remote proceedings are not without challenges. Structural and technological barriers, when they do arise, coincide with more stressful hearings, technological difficulties, and impaired confidence in the device used to access these remote hearings. Economic hardship is also

related to encountering challenges in remote proceedings. Further, litigants who experience courts as impeded by bureaucratic hassles view court as more threatening, more stressful, less trustworthy, and less satisfying. Finally, stress during court proceedings appears to undermine feelings of fairness. Litigants who experience more stress report lower levels of procedural justice, lower trust in courts, and even less likelihood of participating in court proceedings in the future. Thus, although

remote proceedings can reduce systematic burdens, stressors, and bureaucratic hassles on unrepresented litigants, this is not a panacea. Indeed, when online civil courts are experienced as burdensome, bureaucratic, and stressful, this undermines the justice sought by the very people who these courts were designed to serve.

Conclusions

We conclude by returning to where we began. The global COVID-19 pandemic brought significant change to our civil justice system, particularly in the rapid shift from in-person to online civil proceedings. Courts across the country, facing the unprecedented challenge of a global health emergency, embraced rapid innovation and adopted remote proceeding platforms, such as Zoom and Webex. State courts did so across case types, including within high-volume civil dockets containing evictions, debt collections, small claims, and family law cases, where many millions of self-represented and unrepresented litigants touch the U.S. civil justice system. Amid the pandemic, voices converged to encourage these justice innovations, including the voices of Supreme Court justices, state court administrators, and access to justice reformers who sought to reimagine judicial administration with these new technologies. Concurrently, given this rapid national experiment, challenges ensued, complicated by inexperience with these platforms before the pandemic and digital divides.

This report enters the national conversation at an especially crucial time: state supreme courts and court administrators are deliberating on what the new—post-pandemic—normal will entail. Some courts are poised to retreat

from remote technologies and return fully to in-person proceedings. Others are seeking to expand access in the post-pandemic period with these technologies. The future will depend on decisions made in the present, which is still unfolding. Given the growing national and international call for people-centered justice, court users' voices, preferences, and peoples' experiences should factor into these decisions.

This report fills this critical evidence gap by understanding the experiences of unrepresented persons attending court in person and remotely giving voice to their preferences, experiences, and outcomes.

Importantly, the unrepresented litigants in this large-scale study spoke resoundingly: online civil courts enhance access to justice for unrepresented litigants, especially unrepresented defendants, in high-volume civil dockets. Unrepresented litigants who accessed court remotely strongly preferred to do so, rather than attending in person, in the future. Remote proceedings improved their experiences of procedural justice and outcome satisfaction, provided conveniences, and decreased the stress of attending court in person. Technological difficulties were rare in these online civil courts despite the prevalence of litigants using smartphones to access these hearings.

Centering the Voices of Court Users and Unrepresented Litigants. Some courts are poised to pull back on remote proceedings and return to pre-pandemic, in-person “normal” operations. The concerns raised relate to difficulties courts and legal professionals encounter in these hearings and intuitions about what court users need and want. The contribution of this report is that it is the first in-depth empirical study that centers on the

voices of court users and litigants. The study reveals that a majority of unrepresented litigants who participated in remote hearings prefer to use this modality in courts in the future, and this group, in large part, feels fairly treated in remote hearings and is relatively satisfied with their court outcomes.

Fielding Experience Sampling Platforms In State Courts. Our study was unique in that we conducted the research as a collaboration between an interdisciplinary team of access to justice researchers and a network of court innovation and design experts, court administrators, legal aid providers, and jurists on Indiana’s Coalition for Court Access. This collaboration led to the creation of a novel digital experience sampling platform in state courts. This experience sampling platform allowed our research team to collect data from over 2,000 respondents, largely unrepresented litigants in eviction, debt collection, small claims, and family law cases. This study is a proof of concept of experience sampling platforms in state courts. It reveals that these platforms are a meaningful way to understand the preferences and experiences of unrepresented litigants, allowing continued optimization of effective and accessible judicial administration. These tools allow courts to evaluate the level of access provided to self-represented litigants consistent with the U.S. Supreme Court’s decision in *Turner v. Rogers*, 564 U.S. 431 (2011).

Exemplary Judging Under Code of Judicial Conduct Rule 2.2. The judges participating in the study were models for how courts across the country can advance the ethical principles of Rule 2.2 by engaging in people-centered judicial administration. These courts systematically gathered the experiences of litigants in their courtrooms and used this

information to continue to innovate. In so doing, these courts served unrepresented litigants neutrally and objectively while evaluating the impact of their own court practices and processes. Moreover, we learned that several of the judges in the study employed innovative practices in online civil courts. These practices include using break-out rooms to make available pro bono and legal aid attorneys who provided brief advance within these hearings and court-provided mediators to help unrepresented litigants reach agreements. We believe it would be beneficial to create “judicial communities of learning” to support further learning on these issues and the development of best practices and new innovations.

Need for Continued Study. We believe the report also reveals new areas for future research in civil courts, including understanding psychological friction, stress, and experiences of trust and threat. These insights may lead to new interventions that reduce this psychological friction and improve the court experience for vulnerable litigants.

These findings highlight the importance of understanding the experiences and outcomes of unrepresented litigants within the civil justice system and underscore the benefits of online civil courts. At the same time, these findings also emphasize the need to address structural, technological, and psychological barriers and ensure equitable access to remote proceedings. By understanding and addressing these challenges, court leaders can enhance access to justice and make the many benefits of online civil courts available to even the most disadvantaged litigants. This research paves the way for people-centered design and sets the stage for continued innovation and equity in online civil courts.

Appendix 1: Demographic Measures

Gender. *Do you describe yourself as a*

- Man
- Woman
- In some other way (specify below) _____

Race/Ethnicity. *What is your race/ethnicity? (select all that apply)*

- Black (African American, African)
- Pacific Islander (origins in Hawaii, Guam, Samoa)
- Middle Eastern (origins in Egypt, Turkey, U.A.E.)
- East Asian (origins in Japan, China, Korea)
- Southeast Asian (origins in Indonesia, Thailand, Vietnam, Philippines)
- Indian Subcontinent (origins in India, Pakistan, Sri Lanka, Bangladesh)
- White (European-American, Anglo, Caucasian)
- Hispanic-American, Latino(a), Chicano(a)
- Native American or Alaskan Native
- Other (specify below): _____

Age. *What is your age?* _____

Education. *What is the highest degree or level of school that you have completed?*

- Less than high school graduate
- High school graduate
- Some college / vocational
- Associate's degree
- Bachelor's degree
- Master's degree
- Professional degree beyond bachelor's (e.g. MD, JD)
- Doctorate degree (e.g., Ph.D.)
- Don't know

Disability. *Does a health problem, disability, or handicap currently keep you from participating fully in work, school, housework, or other activities?*

- Yes
- No

English Primary. *Is English your primary language?*

- Yes
- No (specify below): _____

Care for Dependents. *Are you a primary caregiver of dependents, such as children or an aging adult?*

- Yes
- No

Job Status. *Are you currently employed full-time, part-time, or not employed?*

- Full-time (30 hours a week or more)
- Part-time (less than 30 hours a week)
- Not employed

Appendix 2: Technical Reporting on Experience Sampling Platform

Who conducted the research and who sponsored it?

Prof. Victor Quintanilla, Prof. Kurt Hugenberg, Dr. Ryan Hutchings, and Dr. Nedim Yel conducted research with collaborators on the Indiana Coalition for Court Access, the Indiana Bar Foundation, the Indiana Supreme Court's Office of Judicial Administration, and legal aid providers, including Indiana Legal Services, and D10 Pro Bono Services. Moreover, we worked with 58 judges, across 40 courts, in 12 counties to conduct the research. We received financial support from Pew Charitable Trusts and a small grant from the Indiana Bar Foundation to conduct this research.

What populations were studied?

We fielded the digital experience sampling platform to study the experiences of court users who attended hearings with these 58 judges. These judges were selected because they handle high-volume civil dockets primarily consisting of eviction, small claim, debt collection, or family law cases in which unrepresented persons appear. While these judges hear cases in addition to these case categories, we limited our surveys to participants who attended hearings before these judges whose cases the Indiana Office of Court Services designated as EV - Evictions (Civil or Small Claims Dockets), SC - Small Claims, CC - Civil Collections, and family law cases (i.e., DR - Domestic Relations, DN - Domestic Relations without Children, or DC - Domestic Relations with Children). Using the phone/email information provided by courts, we texted/ emailed a link to the experience survey to court litigants (rather than attorneys of record). We retained recipients who affirmed attending a

recent court hearing and could complete the survey in English or Spanish. Moreover, we required recipients to complete an informed consent form to participate. Ultimately, we received completed surveys from $n = 2,030$ respondents and limited our analysis in this research to the $n = 1,878$ court users who were unrepresented plaintiffs or unrepresented defendants. Seventy percent of these court users attended court hearings in-person ($n = 1,315$), while 30 percent attended hearings remotely ($n = 563$).

We did not limit the sample based on the demographic characteristics of court users. We included court users, for example, who attended these hearings regardless of the location in which they remotely accessed these hearings, their age, or other social or demographic characteristics.

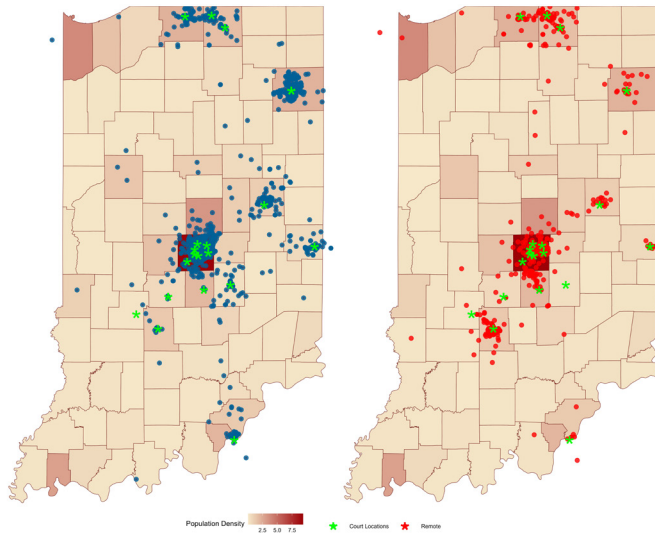
Geographic Dispersion of Participants

We fielded the platform among 58 judges, across 40 courts, in 12 counties. Indiana Supreme Court's OJA provided case information, including mailing addresses for each litigant who consented to participate in the platform. To better understand the geographic diversity of this sample, we plotted them in the below panels. As can be seen, our in-person and remote participants resided primarily within the 12 counties in the study.

In-person participants lived an average of $7\frac{1}{2}$ miles away ($M = 7.6$ miles, $SD = 16.5$) from the courthouse of their hearing, while remote participants resided 10 miles away ($M = 10.1$ miles, $SD = 19.3$) from the court convening their remote hearing. As data were highly

skewed and right-tailed, median and IQR ranges are provided: the median distance from the courthouse was 3½ miles (*Mdn* = 3.6 miles, IQR: 1.9 - 7.0 miles) among in-person participants and 4.0 miles (*Mdn* = 4.0 miles, IQR: 1.9 - 10.0)

Figure A.1



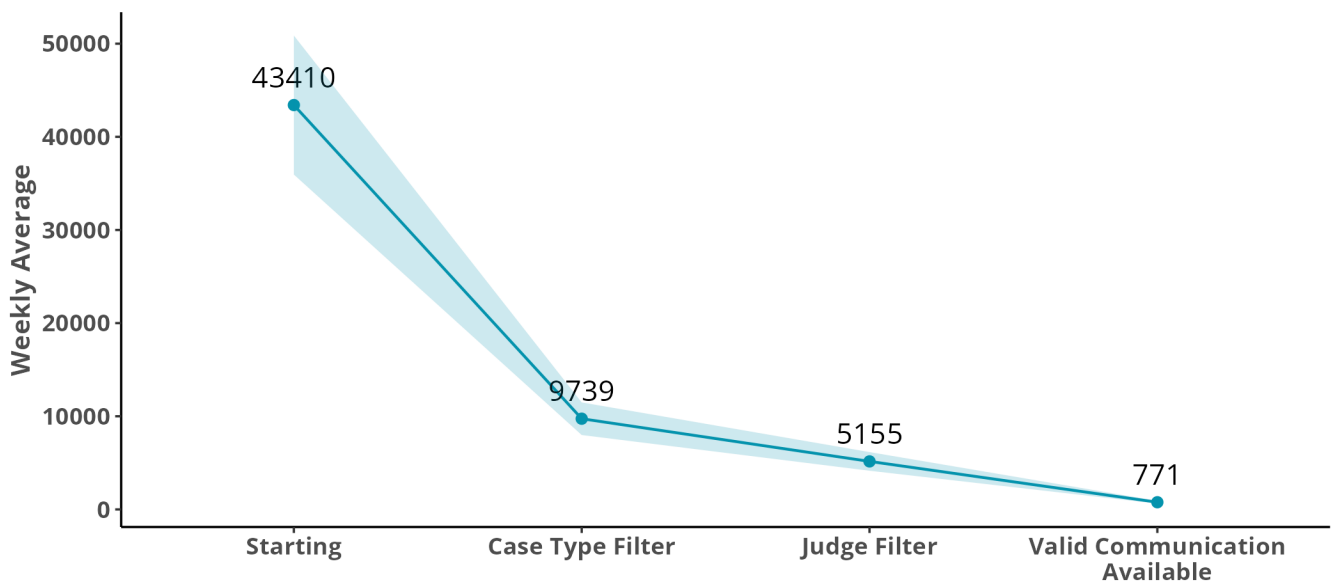
When was data collected?

We began piloting the digital experience sampling platform with a single court on April 25, 2022 and formally opened collection across all judges and courts on May 16, 2022. We concluded collection on December 21, 2022.

What were the methods and modes of data collection?

Each week, the Indiana Office of Court Services provided bulk data about the previous week’s hearings. On average, *n* = 43,410 parties were scheduled to appear per week. This bulk data included the case number, case type, names of the parties, and importantly, contact information for the parties. We filtered this data to identify relevant parties for the study. First, we retained data from domestic relations, evictions, and small claims cases (see above for codes; *n* = 9,739 parties in an average week). Then, we retained data from parties who appeared before judges participating in our study (*n* = 5,155 parties in an average week). Finally, we retained data for parties with a valid email or phone number (*n* = 771 parties in an average week). We entered this data into Qualtrics and created a contact list for our online survey. We used this list to send automated invitations and reminders. We attempted to collect data from all eligible participants (*i.e.*, a non-probability sample). We discuss the limitations of this strategy at the end of this section.

Figure A.2: Weekly Data From Court Partners.



Each week, we sent invitations and reminders to parties in our contact lists via emails and SMS text messages. We verified that the recipients' phone numbers could accept text messages before any messaging. Each week, we sent an invitation to our survey, which included information about the research team, why they received the message, a call to participate in the survey, a description of payment, and an explanation of how to opt out of future communications. The email and text message invitations were similar, but the text message version was abbreviated. We sent this message to all communication channels available for the party. Next, we sent up to three reminder messages encouraging parties who had not finished the survey to participate. We designed the reminder messages to address common concerns or objections to participating in survey research and provided direct communication lines with the research team (*i.e.*, some recipients were concerned about phishing). Some parties received a fourth reminder encouraging them to text back updated contact information.

On most weeks, we sent invitations on Mondays and reminders on Wednesdays, Fridays, and Saturdays. However, this schedule sometimes varied. For example, we avoided communicating with parties on holidays, and thus, we delayed invitations or limited reminders on certain weeks. We sent messages at 6 p.m. EST on weekdays and 12 p.m. EST on Saturdays.

We approached recruiting participants as a continuous improvement process. That is, we made changes throughout the data collection period to improve the reach and effectiveness of our recruitment strategy. For instance, we sent only two reminders per week early in

the data collection period but realized that a third message improved response rates. We implemented this change in mid-July 2022, or about one and half months into our data collection period. We used A/B testing in early weeks to test different invitation/reminder messages and email subject lines. These changes aided in collecting data from as many parties as possible.

In total, we attempted to reach $n = 24,681$ parties in recent civil cases (see Figure A.1). We had email and phone contacts for $n = 10,963$ parties, only phone contacts for $n = 9,455$ parties, and only email contacts for $n = 4,263$ parties. We sent messages through all available channels. However, not all email messages were properly delivered, so excluding these left $n = 23,509$ parties. We were unable to track the deliverability in text messages given the features available in our institutional Qualtrics license at that time. As might be expected, only a small portion of parties ($n = 5,081$) clicked on the link to participate, and even fewer parties went beyond the initial page of information ($n = 3,519$). Our first pages included eligibility questions (e.g., recently attended a court hearing) passed by most participants ($n = 3,140$). At this point, nearly all participants consented ($n = 3,042$). Most consenting participants finished the full survey ($n = 2,428$).

Parties who participated in the survey received an eGift card for their effort and time. Gift cards were sent virtually via Rybbon (now Blackhawk Incentives). Parties who participated from May 16th through August 1st, 2022 received a \$10 eGift card, whereas parties who participated from August 1st to December 21st, 2022, received a \$15 eGift card. We increased payment to encourage more participation.

Figure A.3: Weekly Recruitment Averages for Experience Sampling Platform.

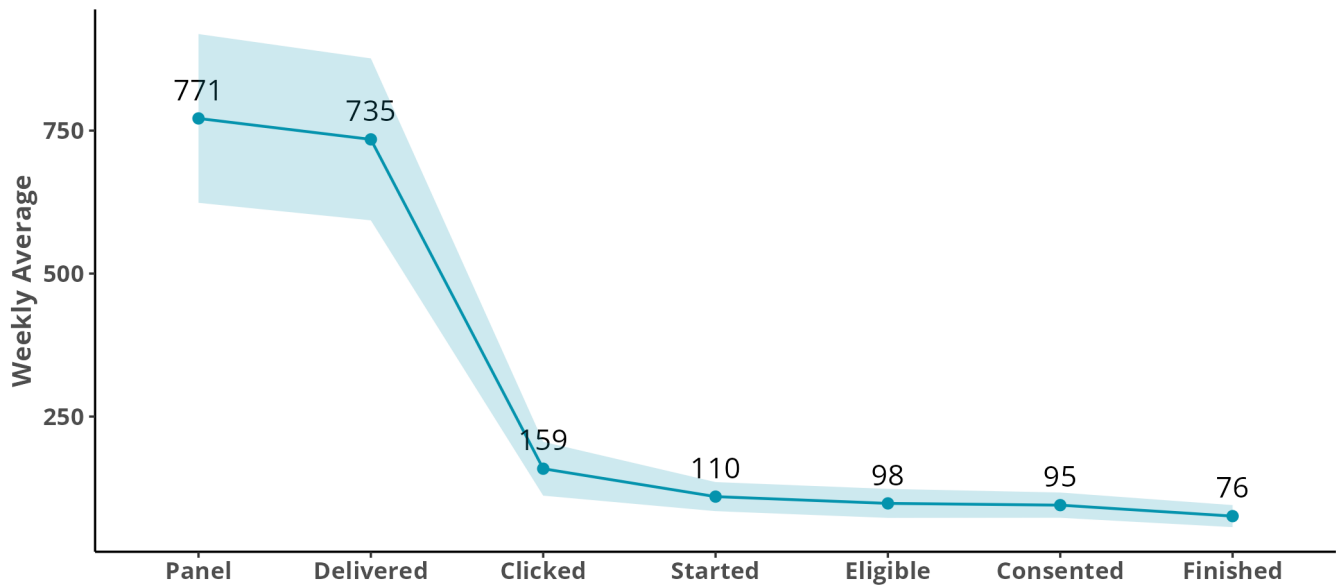


Figure A.2. We only removed unsent emails, but not text messages, from our weekly estimations of delivered invitations, given our Qualtrics license during the data collection period. After the fact, we identified that, on average, 12% of text messages did not reach parties.

Parties could select among many options for their gift card, including online marketplaces, grocery stores, department stores, restaurants, and coffee shops.

We included various inclusion requirements and quality assurance measures before finalizing our sample for data analysis. At the beginning of this process, we had 3,790 responses with some amount of data. First, we removed data ($n = 98$) from our piloting period between April 25th and May 16th. Next, we removed data from participants who did not recently attend a court hearing or could not complete the survey in English or Spanish ($n = 427$). Then, we removed data ($n = 73$) from participants who were not plaintiffs or defendants.

Next, since we sent multiple invitations to parties, we had to remove duplicate responses. First, our incentive platform blocked multiple

rewards to the same email. We removed data ($n = 260$) from participants who were blocked. Next, we removed data from participants who did not reach the final page of the survey ($n = 690$). Then, we used two strategies to remove data from participants with the same internal identifier. We either removed the more incomplete data ($n = 190$) or the data that was started later than an initial survey ($n = 23$). At the end of this process, we had data from 2,030 unique parties.

What were the limitations of the survey design?

The digital experience sampling platform was a first-of-its-kind system to reach and understand the experiences of civil parties across the state. Nevertheless, there were several limitations that future researchers and access to justice scholars may improve upon in future studies.

Our survey design was limited by our sampling strategy. We collected a non-probability sample, meaning that we did not incorporate random selection (or chance) into selecting who participates in the platform. Rather, we invited all eligible parties to participate, which could have biased the results. In simple terms, this means that this sample of unrepresented civil parties we recruited from evictions, small claims, debt collection, and family law cases may not be fully representative of all the unrepresented civil parties in Indiana who appear in these kinds of cases.

There were several factors that guided this decision. We were unable to recruit a random sample of courts and judges to participate in data collection. Rather, in collaboration with our partners, we encouraged voluntary participation in data collection. Our final sample of 58 judges across 40 courts and 12 counties exceeded our expectations and accounted for 21 percent of the total volume of cases in the studied categories in 2022. That said, the sample of judges ultimately recruited included a mixture of urban, rural, and mixed rural counties, was racially and ethnically diverse, and included gender diversity, meaning that this diversity may be beneficial from an external validity perspective. Nevertheless, our ability to randomly sample our population of interest was inherently challenged without the ability to contact parties in all possible courts.

Secondly, given concerns about low sample sizes and statistical power in social science research, we sought to collect data from as many parties as possible. As noted above, each week, we could not contact a sizable number of eligible parties (i.e., we lacked contact information for 81.63% to 91.13% of parties on a week-to-week basis.) Random sampling would

have inherently meant recruiting even fewer parties.

Fortunately, we recruited similar numbers of plaintiffs and defendants, and parties in different case types. Future researchers may benefit from stratified sampling of these groups. Judges varied greatly in their docket size, both in comparison to their fellow judges and to themselves on a week-to-week basis. In light of this, we did not make any attempt to reach the same number of parties from each judge. Parties' experiences likely differ across judges and courts. Therefore, we plan on capturing this variability using statistical techniques in the future (e.g., hierarchical linear modeling and within-judge designs).

Our survey design also limited our ability to make causal inferences. Throughout the report, we discuss differences in parties' experiences across in-person and remote hearings. One may naturally wonder how the same party might have experienced court differently had they attended their hearing in person versus remotely. Did how parties attended court cause them to have different experiences? Our survey design was not well situated to answer these questions because parties were not randomly assigned to attend court in person versus remotely. Thus, there could be other differences between in-person and remote parties that we have not taken into account.

However, there are many reasons to think that in-person and remote parties were comparable. First, in-person and remote plaintiffs and defendants were relatively similar in their demography. For instance, in-person and remote parties were similar regarding their distributions of gender, disability, job status, care for dependents, and primary spoken language. Next, most courts and judges in

the sample had both in-person and remote dockets. Thus, differences between in-person and remote parties cannot be easily explained by the parties appearing in different courts or before different judges. Nevertheless, a randomized control trial would improve our understanding of hearing modalities in parties' experiences in court. That said, the

ethical challenges of randomizing litigants to modalities they do not consent to participate in would be substantial. Therefore, the technique we employed with appropriate statistical controls and checks may be the most prudent and viable approach in the field, rather than a lab environment.



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Endnotes

1 See Bridget Mary McCormack, *The Disruption We Needed: COVID-19, Court Technology, and Access to Justice*, in LEGAL TECH AND THE FUTURE OF CIVIL JUSTICE 307 (Engstrom, 2023); *How Courts Embraced Technology, Met the Pandemic Challenge, and Revolutionized their Operations*, PEW CHARITABLE TRUSTS (Dec. 2021), <https://www.pewtrusts.org/en/research-and-analysis/reports/2021/12/how-courts-embraced-technology-met-the-pandemic-challenge-and-revolutionized-their-operations>; Eric Scigliano, *Zoom Court is Changing How Justice is Served*, THE ATLANTIC, <https://www.theatlantic.com/magazine/archive/2021/05/can-justice-be-served-on-zoom/618392/> (April 13, 2021); Alicia L. Bannon & Douglas Keith, *Remote Court: Principles for Virtual Proceedings During the COVID-19 Pandemic and Beyond*, 115 NW. UNIV. L. REV. 1875, 1877 (2021); Conf. of Chief Justs. & Conf. of State Ct. Admin'rs, Resolution 2: In Support of Remote and Virtual Hearings Encouraging State Courts to Adopt Innovative Practices in High-Volume Dockets, NATIONAL CENTER FOR STATE COURTS (July 28, 2021), https://www.ncsc.org/_data/assets/pdf_file/0016/67012/Resolution-2_Remote-and-Virtual-Hearings.pdf; *Remote Proceedings Toolkit*, NATIONAL CENTER FOR STATE COURTS, https://www.ncsc.org/_data/assets/pdf_file/0027/82377/Remote-Proceeding-Toolkit-Final.pdf, (last visited Sept. 8, 2023).

2 See RICHARD SUSSKIND, ONLINE COURTS AND THE FUTURE OF JUSTICE (2019); Ayelet Sela, *e-Nudging Justice: The Role of Digital Choice Architecture in Online Courts*, 2019 J. DISP. RESOL. 127, 127–28; Eric Scigliano, *Zoom Court is Changing How Justice is Served*, THE ATLANTIC, <https://www.theatlantic.com/magazine/archive/2021/05/can-justice-be-served-on-zoom/618392/>, (April 13, 2021).

3 See Alicia Bannon & Janna Adelstein, *The Impact of Video Proceedings on Fairness and Access to Justice in Court*, BRENNAN CENTER FOR JUSTICE (2020). To be sure, however, researchers conducted research on the effect of online dispute resolution and remote hearings before the pandemic. See, e.g., Ethan Katsh & Leah Wing, *Ten Years of Online Dispute Resolution (ODR): Looking at the Past and Constructing the Future*, 38 U. TOL. L. REV. 19 (2006); Gail S. Goodman et al., *Face-to-Face Confrontation: Effects of Closed-Circuit Technology on Children's Eyewitness Testimony and Jurors' Decisions*, 22 L. & HUM. BEHAV. 165 (1998); Molly Treadway Johnson & Elizabeth C. Wiggins, *Videoconferencing in Criminal Proceedings: Legal and Empirical Issues and Directions for Research*, 28 L. & POL'Y. 211 (2006).

4 See Shari Seidman Diamond et al., *Efficiency and Cost: The Impact of Videoconferenced Hearings on Bail Decisions*, 100 J. CRIM. L. & CRIMINOLOGY 869 (2010). For more recent examples, see also Ingrid V. Eagly, *Remote Adjudication in*

Immigration, 109 NW. UNIV. L. REV. 933 (2015); Holly K. Orcutt et al., *Detecting Deception in Children's Testimony: Factfinders' Abilities to Reach the Truth in Open Court and Closed-Circuit Trials*, 25 L. & HUM. BEHAV. 339 (2001).

5 See Shari Seidman Diamond et al., *Efficiency and Cost: The Impact of Videoconferenced Hearings on Bail Decisions*, 100 J. CRIM. L. & CRIMINOLOGY 869 (2010). See also Dane Thorley & Joshua Mitts, *Trial by Skype: A Causality-Oriented Replication Exploring the Use of Remote Video Adjudication in Immigration Removal Proceedings*, 59 INT'L REV. L. & ECON. 82 (2019).

6 A recent chapter and essay gather many of these past studies. See e.g., Renee L. Danser et al., *Remote Testimonial Fact-Finding*, in LEGAL TECH AND THE FUTURE OF CIVIL JUSTICE (David F. Engstrom ed., 2022); Alicia L. Bannon & Douglas Keith, *Remote Court: Principles for Virtual Proceedings During the COVID-19 Pandemic and Beyond*, 115 NW. UNIV. L. REV. 1875, 1877 (2021).

7 See Victor D. Quintanilla, *Doing Unrepresented Status: the Social Construction and Production of Pro se Persons*, 69 DEPAUL L. REV. 543 (2020); Stephan Landsman, *The Growing Challenge of Pro Se Litigation*, 13 LEWIS & CLARK L. REV. 439 (2009).

8 See Colleen F. Shanahan & Anna E. Carpenter, *Simplified Courts Can't Solve Inequality*, 148(1) DAEDALUS 128 (2019); Paula L. Hannaford-Agor, et al., *The Landscape of Civil Litigation in State Courts*, NAT'L CTR. FOR STATE CTS. (2015) https://www.ncsc.org/_data/assets/pdf_file/0020/13376/civiljusticereport-2015.pdf; Amy Gonzales, *The Contemporary US Digital Divide: From Initial Access to Technology Maintenance*, INFO., COMM'N & SOC'Y, 234 (2016). For a recent (and insightful) account of the tensions in these societal and technological trends, see Norman W. Spaulding, *Online Dispute Resolution and the End of Adversarial Justice?* in LEGAL TECH AND THE FUTURE OF CIVIL JUSTICE (Engstrom 2023).

9 See Colleen F. Shanahan & Anna E. Carpenter, *Simplified Courts Can't Solve Inequality*, 148(1) DAEDALUS 128 (2019); Paula L. Hannaford-Agor, *The Landscape of Civil Litigation in State Courts*, NAT'L CTR. FOR STATE CTS. (2015), https://www.ncsc.org/_data/assets/pdf_file/0020/13376/civiljusticereport-2015.pdf; Stephan Landsman, *The Growing Challenge of Pro Se Litigation*, 13 LEWIS & CLARK L. REV. 439 (2009). *How Courts Embraced Technology, Met the Pandemic Challenge, and Revolutionized their Operations*, PEW CHARITABLE TRUSTS (Dec. 2021), <https://www.pewtrusts.org/en/research-and-analysis/reports/2021/12/how-courts-embraced-technology-met-the-pandemic-challenge-and-revolutionized-their-operations>.

10 See MATTHEW DESMOND, *EVICTED*, (2016); Amy Myrick et al., *Race and Representation: Racial Disparities in Legal Representation for Employment Civil Rights Plaintiffs*, 15 NYU J. LEGIS. & PUB. POLY 705 (2012).

11 See e.g., *Civil Justice for All*, AM. ACAD. OF ARTS & SCI. (2020); Bridget Mary McCormack, *The Disruption We Needed: COVID-19, Court Technology, and Access to Justice*, in *LEGAL TECH AND THE FUTURE OF CIVIL JUSTICE* 307 (Engstrom 2023).

12 See IND. SUP. CT., CIVIL LITIGATION TASKFORCE RECOMMENDATIONS 38 (2022), <https://www.in.gov/courts/admin/files/innovation-cltf-report.pdf>; Steven Badger, *More Effectively Serving the Growing Number of SRLs, Section under A Call for Change: Civil Litigation in Indiana*, INDIANA COURT TIMES (Dec. 16, 2022), <https://times.courts.in.gov/2022/12/16/call-for-change/>. Statistics in this paragraph highlighting SRL rates and asymmetries of representation were gathered from the Indiana Supreme Court's Office of Judicial Administration's recently launched SRL reporting dashboard. For a discussion of this innovative SRL reporting dashboard, see *How Organizing, Sharing Data Can Boost Court Transparency*, PEW CHARITABLE TRUSTS (Sep. 2023), <https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2023/09/how-organizing-sharing-data-can-boost-court-transparency>.

13 See Alicia L. Bannon & Douglas Keith, *Remote Court: Principles for Virtual Proceedings During the COVID-19 Pandemic and Beyond*, 115 NW. L. REV. 1875 (2021).

14 Amy Gonzales, *The Contemporary US Digital Divide: From Initial Access to Technology Maintenance*, INFO., COMMC'N & SOC'Y 234 (2016).

15 Amy L. Gonzales, *Health Benefits and Barriers to Cell Phone Use in Low-Income Urban U.S. Neighborhoods: Indications of Technology Maintenance*, 2(3) MOBILE MEDIA & COMMC'N 233 (2014); Amy L. Gonzales et al., *Cell Phone Disconnection Disrupts Access to Healthcare and Health Resources: A Technology Maintenance Perspective*, 18(8) NEW MEDIA & SOC'Y 1422 (2014); PEW RESEARCH CENTER, *Internet/Broadband Fact Sheet* (Apr. 7, 2021), <https://www.pewresearch.org/internet/fact-sheet/internet-broadband/>.

16 SELF-REPRESENTED LITIGANT NETWORK, *Digital Divide Dashboard - Indiana* (Jan. 27, 2023), <https://bit.ly/3RcSKPv>. We thank the Indiana Bar Foundation for providing a financial gift that made this digital dashboard possible.

17 Jonathan Donner, *The Rules of Beeping: Exchanging Messages via Intentional "Missed Calls" on Mobile Phones*, 13 J. COMPUT.-MEDIATED COMMC'N 1 (2008); HEATHER A. HORST & DANIEL MILLER, *THE CELL PHONE: AN ANTHROPOLOGY OF COMMUNICATION* (2006); Sebastian Ureta, *Mobilising Poverty?: Mobile Phone Use and Everyday*

Spatial Mobility Among Low Income Families in Santiago, Chile, 24(2) INFO. SOC'Y 83 (2008); Amy L. Gonzales, *Health Benefits and Barriers to Cell Phone Use in Low-Income Urban U.S. Neighborhoods: Indications of Technology Maintenance*, 2(3) MOBILE MEDIA & COMMC'N 233 (2014); Amy L. Gonzales et al., *Cell Phone Disconnection Disrupts Access to Healthcare and Health Resources: A Technology Maintenance Perspective*, 18(8) NEW MEDIA & SOC'Y 1422 (2014).

18 See Emergency Ord. Permitting Expanded Remote Proc., No. 20S-CB-123 (Ind. 2020).

19 See *How Courts Embraced Technology, Met the Pandemic Challenge, and Revolutionized their Operations*, PEW CHARITABLE TRUSTS (Dec. 2021), <https://www.pewtrusts.org/en/research-and-analysis/reports/2021/12/how-courts-embraced-technology-met-the-pandemic-challenge-and-revolutionized-their-operations>; Eric Scigliano, *Zoom Court is Changing How Justice is Served*, THE ATLANTIC, <https://www.theatlantic.com/magazine/archive/2021/05/can-justice-be-served-on-zoom/618392/> (April 13, 2021); Alicia L. Bannon & Douglas Keith, *Remote Court: Principles for Virtual Proceedings During the COVID-19 Pandemic and Beyond*, 115 NW. UNIV. L. REV. 1875, (2021). For adoption of these technologies in Indiana courts, see Victor D. Quintanilla et al., *Digital Inequalities and Access to Justice: Dialing into Zoom Court Unrepresented*, in *Legal Tech And The Future of Civil Justice* 225, 227 (David F. Engstrom, 2022).

20 See Ind. Interim Admin. R. 14. As in Indiana, many courts are currently deliberating on the future of remote alternatives in the post-pandemic period. See generally, See Bridget Mary McCormack, *The Disruption We Needed: COVID-19, Court Technology, and Access to Justice*, in *LEGAL TECH AND THE FUTURE OF CIVIL JUSTICE* 307 (Engstrom & Gelbach, 2023); Zach Zarnow & Danielle E. Hirsch, *Inflection Point: Can Courts Use Technology to Spur Transformational Change or Will They Return to the Traditional Way of Doing Business?*, 5 GEO. L. TECH. REV. 135 (2021).

21 See Jenia Iontcheva Turner, *Remote Criminal Justice*, 53 TEX. TECH L. REV. 197 (2021); Esther Nir & Jennifer Musial, *Zooming In: Courtrooms and Defendants' Rights during the COVID-19 Pandemic*, 31(5) SOC. & LEGAL STUD. 725 (2022).

22 See *The Use of Remote Hearings in Texas State Courts*, NAT'L CTR. FOR STATE CTS. (2021), <https://www.ncsc.org/consulting-and-research/areas-of-expertise/access-to-justice/remote-hearings-and-services/resources-docs/TX-Remote-Hearing-Assessment-Report.pdf>.

23 See *The Use of Remote Hearings in Texas State Courts*, NAT'L CTR. FOR STATE CTS. (2021), <https://www.ncsc.org/consulting-and-research/areas-of-expertise/access-to-justice/remote-hearings-and-services/resources-docs/TX-Remote-Hearing-Assessment-Report.pdf>.

24 See Tara Kunkel et al., *Adoption of Virtual Services in Judicially Led Diversion Program: Final Findings*, RULO STRATEGIES (2022), https://www.ncsc.org/_data/assets/pdf_file/0027/72747/Adoption-of-Virtual-Services-in-Judicially-Led-Diversion-Programs-Final-Findings.pdf; Tara Kunkel et al., *Virtual Services in Judicially Led Diversion Programs: Participant Findings*, RULO STRATEGIES (2022), https://www.ncsc.org/_data/assets/pdf_file/0028/72748/Virtual-Services-in-Judicially-Led-Diversion-Programs-Participant-Findings.pdf.

25 See Tara Kunkel et al., *Adoption of Virtual Services in Judicially Led Diversion Program: Final Findings*, RULO STRATEGIES (2022), https://www.ncsc.org/_data/assets/pdf_file/0027/72747/Adoption-of-Virtual-Services-in-Judicially-Led-Diversion-Programs-Final-Findings.pdf; Tara Kunkel et al., *Virtual Services in Judicially Led Diversion Programs: Participant Findings*, RULO STRATEGIES (2022), https://www.ncsc.org/_data/assets/pdf_file/0028/72748/Virtual-Services-in-Judicially-Led-Diversion-Programs-Participant-Findings.pdf.

26 Kelly Jarvis et al., *Litigant Perspectives on Remote Hearings in Family Law Cases*, DC BAR FOUND. (2021) https://www.dbarfoundation.org/_files/ugd/3ddb49_2c2da451535e4f9f8de6ab2baf575a54.pdf.

27 Kelly Jarvis et al., *Litigant Perspectives on Remote Hearings in Family Law Cases*, DC BAR FOUND. (2021) https://www.dbarfoundation.org/_files/ugd/3ddb49_2c2da451535e4f9f8de6ab2baf575a54.pdf.

28 John Greacen, *Executive Summary of the Resource Guide on Serving Self-Represented Litigants Remotely*, SELF-REPRESENTED LITIG. NETWORK (2016), https://www.srln.org/system/files/attachments/Remote%20Guide%20Executive%20Summary%208-16-16_0.pdf; Alicia L. Bannon & Douglas Keith, *Remote Court: Principles for Virtual Proceedings During the COVID-19 Pandemic and Beyond*, 115 NW. UNIV. L. REV. 1875 (2021).

29 Alicia L. Bannon & Douglas Keith, *Remote Court: Principles for Virtual Proceedings During the COVID-19 Pandemic and Beyond*, 115 NW. UNIV. L. REV. 1875 (2021); *Remote Proceedings Toolkit*, NATIONAL CENTER FOR STATE COURTS, https://www.ncsc.org/_data/assets/pdf_file/0027/82377/Remote-Proceeding-Toolkit-Final.pdf, (last visited Sept. 8, 2023).

30 Amy Gonzales, *The Contemporary US Digital Divide: From Initial Access to Technology Maintenance*, 19(2) INFO., COMMUN & SOC'Y, 234 (2016); Albert Fox Cahn & Melissa Giddings, *Virtual Justice: Online Courts During COVID-19*, SURVEILLANCE TECH. OVERSIGHT PROJECT (2020), <https://perma.cc/R9KY-F4R5>; Kristin Brown et al., Presentation at the New York Permanent Commission on Access to

Justice Statewide Shareholders Meeting: The Digital Divide and Access to Justice (Oct. 18, 2021), <https://www.nycourts.gov/LegacyPDFS/accesstojusticecommission/DigitalDivideSlides.pdf>.

31 See Susan A. Bandes & Neal Feigenson, *Empathy and Remote Legal Proceedings*, 51 SW. L. REV. 20 (2021). For examples of research examining the interaction of video technologies and empathy, see also David T. Nguyen & John Canny, *More than Face-to-Face: Empathy Effects of Video Framing* (CHI Conference on Human Factors in Computing Systems, 2009), <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=9c644d49bea8b382c72a7abdfdb1f6d5058383fd>; Philip A. Powell & Jennifer Roberts, Situational Determinants of Cognitive, Affective, and Compassionate Empathy in Naturalistic Digital Interactions, 68 *Comput. Hum. Behav.* 137 (2017).

32 See Alicia Bannon & Janna Adelstein, *The Impact of Video Proceedings on Fairness and Access to Justice in Court*, Brennan Center for Justice, https://www.brennancenter.org/our-work/research-reports/impact-video-proceedings-fairness-and-access-justice-court#footnote3_hm5lpx2 (2020). For other kinds of technological difficulties, see Eileen Guo, *Logging in to get kicked out: Inside America's virtual eviction crisis*, MIT TECH. REV. (Dec. 2, 2020), <https://www.technologyreview.com/2020/12/02/1012810/video-evictions-zoom-webex/>.

33 See Emma Rowden & Anne Wallace, *Remote Judging: The Impact of Video Links on the Image and the Role of the Judge*, 14 *Int'l J. L. Context* 504 (2018). See also Susan A. Bandes & Neal Feigenson, *Virtual Trials: Necessity, Invention, and the Evolution of the Courtroom*, 68(5) *Buff. L. Rev.* 1275 (2020).

34 Victor D. Quintanilla et al., *Digital Inequalities and Access to Justice: Dialing into Zoom Court Unrepresented*, in *LEGAL TECH AND THE FUTURE OF CIVIL JUSTICE* 225, 227 (David F. Engstrom, 2022).

35 See *id.*

36 *Id.*

37 The Indiana Supreme Court's Office of Judicial Administration's court data reveals that these 58 judges and 40 courts handled 23.3 percent of all small claims/debt collection cases in Indiana in 2022, 16.6 percent of all evictions, and 12.9 percent of all family matters. Taken together, these judges handled 20.9 percent of all cases filed across these categories statewide in 2022.

38 Readers will find more detailed information about the digital experience sampling platform in Appendix 2.

39 Although we aggregate across these methods of accessing remote hearings for purposes of this study, in

the conclusion of our report, we encourage future studies that evaluate the experiences and outcomes in these various modalities, along with the features and barriers afforded by these platforms and the familiarity of litigants with these technologies to help guide courts improve participation in remote proceedings. For past examples of these kinds of reports, see e.g., John Greacen, *Serving Self-Represented Litigants Remotely: A Resource Guide*, SELF-REPRESENTED LITIG. NETWORK (July 1, 2016), http://www.srln.org/system/files/attachments/Remote%20Guide%20Final%208-16-16_0.pdf.

40 Readers will find the measures used to gather these demographics in Appendix 1.

41 On the importance of assessing litigant preferences, see J.J. Prescott, *Using ODR Platforms to Level the Playing Field*, in LEGAL TECH AND THE FUTURE OF CIVIL JUSTICE (Engstrom ed., 2023); Donna Shestowsky, *Great Expectations? Comparing Litigants' Attitudes Before and After Using Legal Procedures*, 44 L. & HUM. BEHAV. 179 (2020); Donna Shestowsky, *The Psychology of Procedural Preference: How Litigants Evaluate Legal Procedures Ex Ante*, 99 IOWA L. REV. 637 (2014); Lisa B. Bingham, *Why Suppose? Let's Find Out: A Public Policy Research Program on Dispute Resolution*, J. DISP. RESOL. 101 (2002); Donna Shestowsky, *Disputants' Preferences for Court-Connected Dispute Resolution Procedures: Why We Should Care and Why We Know So Little*, 23 OHIO ST. J. ON DISP. RESOL. 549 (2008).

42 See What is People-Centered Justice Kelechi Achinonu et. al., FROM JUSTICE FOR THE FEW TO JUSTICE FOR ALL: A MODEL FOR HIGH-AMBITION ACTION TO DELIVER THE SDGS (May 23, 2023), <https://unfoundation.org/what-we-do/issues/sustainable-development-goals/a-model-for-people-centered-justice>; Andrew Pilliar, *Filling the Normative Hole at the Centre of Access to Justice: Toward A Person-Centred Conception*, 55 U.B.C. L. REV. 149 (2022); OECD, *Good Practice Principles for People-Centered Justice* (2021), <https://www.oecd.org/governance/global-roundtables-access-to-justice/good-practice-principles-for-people-centred-justice.pdf>; Justice Action Coalition, *Key Messages on People-Centered Justice* (June 2023), https://cic.nyu.edu/wp-content/uploads/2023/07/FINAL-JAC-Key-Messages-Documents_11Jul23.pdf; Maysoun Freij et al., *Perspectives on Transforming Civil Justice in the United States*, NORC U. CHICAGO (Jan. 2020), <https://www.norc.org/content/dam/norc-org/pdfs/NORC1924%20Civil%20Justice%20Report%20final%2030January.2020%20V3.pdf>; Margaret Hagan, *Participatory Design for Innovation in Access to Justice*, 148 DAEDALUS 120 (2019); Daniel W. Bernal & Margaret D. Hagan, *Redesigning Justice Innovation: A Standardized Methodology*, 16 Stan. J. C.R. & C.L. 335, 336 (2020); Victor Quintanilla, *Human-Centered Civil Justice Design*, 121 PENN ST. L. REV. 745 (2017).

43 See E. ALLEN LIND & TOM R. TYLER, THE SOCIAL PSYCHOLOGY OF PROCEDURAL JUSTICE 61-172 (Melvin J. Lerner ed., 1988).

44 See TOM R. TYLER, WHY PEOPLE OBEY THE LAW 161-69 (2006).

45 See Tom R. Tyler, *Psychological Perspectives on Legitimacy and Legitimation*, 57 ANN. REV. PSYCHOL. 375, 379-80 (2006); Kristina Murphy et al., *Nurturing Regulatory Compliance: Is Procedural Justice Effective When People Question the Legitimacy of the Law?* 3 REG. & GOVERNANCE 1, 2-5 (2009); Betsy Stanko et al., *A Golden Thread, a Presence Amongst Uniforms, and a Good Deal of Data: Studying Public Confidence in the London Metropolitan Police*, 22 Policing & Soc'y 317, 318-20 (2012); Tom R. Tyler et al., *Legitimacy and Deterrence Effects in Counterterrorism Policing: A Study of Muslim Americans*, 44 Law & Soc'y Rev. 365, 365-74 (2010).

46 See Quintanilla, *supra* note 42; Nancy Welsh et al., *The Application of Procedural Justice Research to Judicial Actions and Techniques in Settlement Sessions*, in THE MULTI-TASKING JUDGE: COMPARITIVE JUDICIAL DISPUTE RESOLUTION 57, 73-78 (Tania Sourdin & Archie Zariski eds., 2013); LISA BLOMGREN AMSLER et al., DISPUTE SYSTEM DESIGN: PREVENTING, MANAGING, AND RESOLVING CONFLICT (2020); Shestowsky, *supra* note 41, at 643-44.

47 See e.g., Stanko, *supra* note 44, at 318-20; Tyler, *supra* note 44, at 365-74.

48 See Victor D. Quintanilla & Michael A. Yontz, *Human-Centered Civil Justice Design: Procedural Justice and Process Value Pluralism*, 54 TULSA L. REV. 113 (2018).

49 Tyler, *supra* note 45, at 379-80; Murphy, *supra* note 45, at 2-5.

50 See Amsler, *supra* note 46; Morton Deutsch, *Equity, Equality, and Need: What Determines Which Value Will Be Used as the Basis for Distributive Justice?*, 31 J. SOC. ISSUES 137 (1975).

51 Freij, *supra* note 42; Greacen, *supra* note 39; Conference of State Court Administrators et al., *Judicial Perspectives on ODR and Other Virtual Court Processes* (May 18, 2020), https://www.ncsc.org/_data/assets/pdf_file/0023/34871/2020-05-18-Judicial-Perspectives.pdf; Jarvis, *supra* note 26; John M. Greacen, *18 Ways Courts Should Use Technology to Better Serve Their Customers*, 57 Fam. Ct. Rev. 515 (2018); IAALS, *Pandemic Positives: Extending the Reach of Court and Legal Services*, (October 2020), https://iaals.du.edu/sites/default/files/documents/publications/pandemic_positives.pdf.

52 See Quintanilla, *supra* note 34; Bannon, *supra* note 1, at 1897-99; Stephan Landsman, *Pro Se Litigation*, 8 ANN. REV. LAW & SOC. SCI 231 (2012); Paula L. Hannaford-Agor, *Helping the Pro Se Litigant: A Changing Landscape*, 39 CT. REV. 8 (2003).

53 See Quintanilla, *supra* note 34.

54 See MONICA K. MILLER & BRIAN H. BORNSTEIN, *STRESS, TRAUMA, AND WELLBEING IN THE LEGAL SYSTEM* (2012); James Teufel & Shannon Mace, *Legal Aid Inequities Predict Health Disparities*, 38 HAMLIN L. REV. 329 (2015); Jim Blascovich & Wendy Mendes, *Social Psychophysiology and Embodiment*, in HANDBOOK OF SOCIAL PSYCHOLOGY 194-227 (Susan T. Fiske, Daniel T. Gilbert & Gardner Lindzey eds., 2010); Jeremy Jamieson, *Challenge and Threat Appraisals*, in HANDBOOK OF COMPETENCE AND MOTIVATION 175-91 (Andrew J. Elliot, Carol S. Dweck & David S. Yeager eds., 2nd ed., 2017).

55 See Mark D. Seery, *Challenge or threat? Cardiovascular indexes of resilience and vulnerability to potential stress in humans*, 35 NEUROSCI. AND BIOBEHAV. REVS. 1603 (2011); Joe Tomaka et al., *Cognitive and Physiological Antecedents of Threat and Challenge Appraisal*, 73 J. OF PERSONALITY AND SOC. PSYCH. 63 (1997); Alia J. Crum et al., *Rethinking Stress: The Role of Mindsets in Determining the Stress Response*, 104 J. PERSONALITY & SOC. PSYCHOL. 716 (2003).

56 See Mark D. Seery, *Challenge or threat? Cardiovascular indexes of resilience and vulnerability to potential stress in humans*, 35 NEUROSCI. AND BIOBEHAV. REVS. 1603 (2011); Joe Tomaka et al., *Cognitive and Physiological Antecedents of Threat and Challenge Appraisal*, 73 J. OF PERSONALITY AND SOC. PSYCH. 63 (1997); Alia J. Crum et al., *Rethinking Stress: The Role of Mindsets in Determining the Stress Response*, 104 J. PERSONALITY & SOC. PSYCHOL. 716 (2003).

57 See Claude M. Steele et al., *Contending with group image: The psychology of stereotype and social identity threat*, 34 ADVANCES EXPERIMENTAL SOC. PSYCH. 379 (2002); Mary C. Murphy & Valerie J. Taylor, *The role of situational cues in signaling and maintaining stereotype threat*, in STEREOTYPE THREAT: THEORY, PROCESS, AND APPLICATION 17-33 (2012); Mary C. Murphy et al., *Prejudiced Places: How Contexts Shape Inequality and How Policy Can Change Them*, 5 POL'Y INSIGHTS FROM BEHAVIORAL AND BRAIN SCI. 66 (2018); KIPLING D. WILLIAMS ET AL., *THE SOCIAL OUTCAST: OSTRACISM, SOCIAL EXCLUSION, REJECTION, AND BULLYING* (2005).

58 See *id.*; Kipling D. Williams, *Chapter 6 Ostracism: A Temporal Need Threat Model*, 41 ADVANCES IN EXPERIMENTAL SOC. PSYCH. 275 (2009).

59 See Steele, *supra* note 57; Murphy, *supra* note 57, at 17-33; Murphy, *supra* note 57, at 66-74; Katherine T.U.

Emerson, & Mary C. Murphy, *A Company I Can Trust? Organizational Lay Theories Moderate Stereotype Threat for Women*, 41 PERS'ITY AND SOC. PSYCH. BULL. 295 (2015).

60 See Crum, *supra* note 55.

61 See Miller, *supra* note 54; BESSEL VAN DER KOLK, *THE BODY KEEPS THE SCORE: BRAIN, MIND, AND BODY IN THE HEALING OF TRAUMA* (2014).

62 See Part III, *supra*.

63 See Murphy, *supra* note 57, at 66-74.

64 See Part III, *Structural Affordances and Barriers*.

65 To create this index, we first recoded answers into dichotomous responses, keying these dichotomies to technological adversity. 1) *No high-speed internet access at home*, 1: No internet or only dial-up at home vs. 0: HSI access at home. 2) *Only smartphone used*, 1: Smartphone vs. 0: Desktop, laptop, etc. 3) *Run out of data*, 1: Often/sometimes run out of data vs. 0: Unlimited/rarely run out.

66 These eight economic barriers included: 1) having trouble getting or paying for medical care, 2) having trouble paying rent or mortgage, 3) being laid off or losing a job, 4) having trouble paying bills, 5) obtaining food from a food bank or food pantry, 6) borrowing money from family or friends, 7) receiving food assistance, such as SNAP benefits, and 8) receiving Medicaid benefits.

67 See Sheldon Cohen, and Gail Williamson, *Perceived stress in a probability sample of the United States*, in THE SOCIAL PSYCHOLOGY OF HEALTH 31-68 (S. Spacapan and S. Oskamp eds., 1988).

68 See Jacinta M. Gau, *Procedural Justice and Police Legitimacy: A Test of Measurement and Structure*, 39 AM. J. CRIM. JUST. 187 (2014); Jacinta M. Gau, *The Convergent and Discriminant Validity of Procedural Justice and Policy Legitimacy: An Empirical Test of Core Theoretical Propositions*, 39 J. CRIM. JUST. 489 (2011); Tom R. Tyler, *Public Trust and Confidence in Legal Authorities: What Do Majority and Minority Group Members Want From the Law and Legal Institutions*, 19 BEHAV. SCI. & L. 215 (2001).

69 We believe that small cell sizes may have limited the ability to detect statistical significance between technological difficulties and outcome satisfaction. Recall that technological difficulties were on the whole infrequent, and the outcome satisfaction measure was completed only by those who attended a hearing in which a court resolved their case.

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