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Administrative capital and the reproduction of inequality

Understanding unequal access to support for children with disabilities in Australia

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Research Summary

Why was the research done?

Complex bureaucratic systems often create unequal access to public support, as citizens differ in their ability to understand and navigate administrative requirements. While administrative burden theory has shown that such burdens contribute to inequality, less attention has been paid to the resources and capabilities that help individuals overcome them. This study develops and tests the concept of administrative capital, defined as the capacity to achieve favourable outcomes in bureaucratic systems by effectively mobilising knowledge of rules, processes, and behaviours. Using new survey data from Australian parents of children with disabilities, we examine how administrative capital is distributed and how it shapes access to disability supports under the National Disability Insurance Scheme (NDIS).

What were the key findings?

We introduce and validate a ten-item administrative capital scale measuring parents' confidence in navigating bureaucratic interactions. Administrative capital was unequally distributed, being higher among families with greater financial resources, and was strongly predictive of key outcomes. Accounting for need, administrative capital was associated with greater likelihood of the child having a NDIS plan, greater parental satisfaction with NDIS supports, and fewer unmet needs. Administrative capital mediated the relationship between financial resources and access to support, indicating that social advantage operates partly through the capacity to navigate administrative systems. Effects were consistent across health, education, and general administrative domains, suggesting that administrative capital is a transferable capability.

What does this mean for policy and practice?

Inequality in access to disability support reflects not only differences in eligibility or need but also differences in administrative capability. Policy design should reduce unnecessary complexity and invest in navigational and advocacy supports, such as case managers, peer navigators, or local coordinators to assist families with limited administrative capital. Building these supports into program design can help public systems like the NDIS deliver fairer and more equitable access to support.

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We acknowledge the Traditional Custodians of the lands on which we work and live across Australia. We pay our respects to Elders past and present and recognise their continued connections to land, sea and community.

Title: Administrative capital and the reproduction of inequality: Understanding unequal access to support for children with disabilities in Australia

Abstract

Administrative burden theory highlights how citizens' ability to navigate bureaucratic systems can shape access to public support and contribute to unequal outcomes. Building on recent conceptual work, we develop the construct of *administrative capital*, defined as citizens' capacity to achieve favourable outcomes within bureaucratic fields. We argue that administrative capital is grounded in citizens' broader capabilities and represents a transferable resource that may shape outcomes across multiple policy domains. Drawing on new survey data from Australian parents of children with disabilities, we develop a ten-item scale measuring administrative capital and evaluate its predictive validity across multiple dimensions of access to disability support. Our findings show that administrative capital is unequally distributed and strongly associated with key administrative outcomes, including children's National Disability Insurance Scheme (NDIS) participation, satisfaction with NDIS support, and the extent of unmet support needs. Moreover, administrative capital mediates the relationship between socioeconomic status and support outcomes. These results suggest that administrative capital may play an important role in structuring inequality in complex welfare systems. Our findings contribute to understanding the emergence of inequalities in access to public support within the administrative burden framework and underscore the need for policy responses that attend to disparities in citizens' capacity to engage effectively with public programs.

Keywords

Administrative burden; Administrative capital; Inequality; Disability support

INTRODUCTION

Administrative burden theory proposes that complex administrative demands governing access to public support may contribute to inequality in the use of services, because potential beneficiaries differ in their ability to understand and comply with administrative processes (Moynihan and Herd 2019; Carey, Malbon, and Blackwell 2021; Halling and Baekgaard 2024). 'Burden' in this context refers to beneficiaries' *experiences* of interaction with government as difficult or onerous, and encompasses learning, compliance, and psychological costs incurred while seeking access to public support (Moynihan, Herd, and Harvey 2015; Moynihan and Herd 2019; Halling and Baekgaard 2024; Burden et al. 2012). A growing body of evidence shows that burdens are both consequential and unequally distributed. Experiences of burden are shaped by the resources (e.g. financial, cultural, social, and human capital) that individuals bring to their interactions with the state and, in turn, affect the quality of outcomes that individuals achieve (Christensen et al. 2020; Yang and Wang 2025; Bell et al. 2023; Masood and Nisar 2021; Halling and Baekgaard 2024; Daigneault and Macé 2020). The idea of administrative burden therefore offers a citizen-level corollary to the rules or processes imposed in the design of public policies, and helps to explain how inequalities in support may emerge among beneficiaries who are notionally equally eligible for that support (Halling and Baekgaard 2024; Baekgaard and Tankink 2022; Moynihan and Herd 2019).

The theory of administrative burden has been applied to a wide array of social inequalities, including those defined by socio-economic factors, disability, ethnicity, or gender (Halling and Baekgaard 2024; Herd and Moynihan 2024; Chudnovsky and Peeters 2021; Yang and Wang 2025; Yates et al. 2022; Carey, Malbon, and Blackwell 2021). In part, the unequal distribution of administrative burden across social groups may reflect policy design that imposes differential costs. For example, people with disabilities experience

substantial burdens accessing supports that do not apply to non-disabled citizens (Carey, Malbon, and Blackwell 2021; Yates et al. 2022; Dickinson and Yates 2023), or women may be subject to additional burdens related to reproductive health and care (Herd and Moynihan 2024). But there are also many circumstances where social inequalities emerge even though citizens are seeking access to the same support and are, formally, subject to the same rules. In these circumstances, it is likely that inequalities in citizens' control over resources that can support successful interactions with public bureaucracy may act as a crucial mechanism underpinning disadvantages in access to public support experienced in diverse policy settings across diverse social groups (Carey, Malbon, and Blackwell 2021; Halling and Baekgaard 2024; Baekgaard and Tankink 2022). Similarly, while empirical studies have tended to focus on single policies or programs, the outcomes that are ultimately most consequential – for instance citizens' health, wellbeing, education, or financial circumstances – are often dependent on access to multiple disparate sources of public support. Importantly, different forms of capital are often flexible and transferrable – actors may deploy the same resources to support access to diverse public supports (Carey, Malbon, and Blackwell 2021; Carey, Crammond, and Malbon 2019; Masood and Nisar 2021).

Deeper understanding of how citizens' resources affect experiences of burden and access to public support is therefore an important objective for scholarship on administrative burden and may enhance conceptual integration across different social groups and policy settings. An important recent contribution to this aim is the work of Masood and Nisar (2021) developing the concept of *administrative capital*, which they define as "*an explicit or tacit ability to understand bureaucratic rules, processes, and behaviors to achieve favorable outcomes in bureaucratic encounters*" (2021, p66). Masood and Nisar (2021) ground the concept of administrative capital in Bourdieu's (1986) theory of capital and, through an ethnographic study of Pakistani doctors seeking access to maternity leave, show how

administrative capital can be deployed to ease mothers' interactions with various gatekeepers. For example, they report that mothers developed insider knowledge of bureaucratic processes, norms, and strategies to navigate bureaucratic encounters, such as understanding times of day when gatekeepers were more available and receptive, presenting themselves as compliant (or a nuisance), or name-dropping prominent relatives. Mothers developed this understanding through repeated interactions with bureaucracy, and these strategies complemented approaches using financial (bribery), social (personal relationships with bureaucrats), or cultural (embodying an upper-class disposition) capitals. Masood and Nisar's (2021) argument offers an important extension to work connecting broader forms of financial, cultural, social, and human capital to administrative burdens (Carey, Crammond, and Malbon 2019; Carey, Malbon, and Blackwell 2021; Christensen et al. 2020; Döring 2021).

In this paper we further develop the concept of administrative capital through a case study of Australian children with disabilities and their families, drawing on new survey data. Conceptually, we build on two points which Masood and Nisar's (2021) raise in passing but do not develop further. First, while Masood and Nisar (2021) emphasise learning through administrative interaction as the foundation of administrative capital, we argue that its most consequential and generalisable elements emerge from citizens' broader resources. Specifically, we suggest that administrative capital should be understood as the product of citizens' social, cultural, and human capital – resources that are unequally distributed across social positions and known to shape individuals' ability to understand, interpret, and navigate bureaucratic processes (Christensen et al. 2020; Carey, Malbon, and Blackwell 2021; Döring 2021). From this perspective, administrative capital should be thought of as reflecting broader societal inequalities.

Second, Masood and Nisar (2021, p68) note that administrative capital could be either 'general' – applicable across organisations and policy contexts – or 'specific' – applicable

only in a particular organisation or policy context. We argue that its greatest analytic value for studying inequalities in administrative burden lies in treating it as a *transferable* resource that can be deployed in a range of organisational and policy settings. Disadvantaged groups often rely on a range of public services and, to the extent that administrative capital is transferable, it may enable citizens to assemble a package of supports that can contribute to better outcomes. We argue, moreover, that transferability is plausible because many of the elements that we may think of as contributing to administrative capital – for instance literacy (Döring 2021; Döring and Madsen 2022), cognitive resources (Christensen et al. 2020), or cultural capital (Carey, Malbon, and Blackwell 2021) – are not tied to particular bureaucratic settings. These properties, *inequality* and *transferability*, suggest that administrative capital may play a central role in generating inequalities in citizens' experiences of burden and access to an array of public support.

This study makes an important methodological contribution by developing and testing a survey-based measure of administrative capital, enabling its integration into quantitative research on administrative burden. Consistent with the notion of transferability, we argue that a robust measure of administrative capital should 1) be measured independently of specific policy contexts, and 2) predict experiences of burden and access to services across multiple policy domains. Empirically, we find that parents' administrative capital predicts key outcomes for children with disabilities across multiple domains – including health, education, and public administration – providing evidence of transferability. We show also that administrative capital is unequally distributed and mediates the relationship between family socio-economic position and children's support outcomes. Our study therefore extends administrative capital into quantitative analysis and underscores its value in explaining inequalities in citizens' experiences of burden and access to public services.

CASE STUDY: CHILD DISABILITY SUPPORT

The landscape of disability support in Australia has been transformed in the past decade with the advent of the National Disability Insurance Scheme (NDIS) (Smith-Merry, Gilroy, and Watharow 2023; Dickinson and Yates 2023; Carey, Malbon, and Blackwell 2021). Framed in opposition to a long history of paternalism in disability policy, the NDIS was intended to deliver 'choice and control' to people with disabilities (Dickinson and Yates 2023). Giving effect to this aspiration, the NDIS revolves primarily around a system of quasi-markets, where approved participants are given a personalised budget (a 'plan') which they can use to purchase therapies, aids, and other supports (Dickinson et al. 2021). In this sense, the NDIS forms a notable example of international trends towards 'personalised care' models in disability and aged care (Carey, Crammond, and Malbon 2019; Carey et al. 2018; Dickinson and Yates 2023). As of August 2025 there were in excess of 717,000 participants, including approximately 377,000 children and adolescents aged 0 to 18 years (National Disability Insurance Agency 2025). Average budgets were AUD $8,930 for children aged 0 to 8 years, AUD $10,857 for those aged 9 to 14 years, and AUD $16,343 for those aged 15 to 18 years. For children, there are two pathways to NDIS support. Those aged under 9 years may be eligible through the 'early childhood approach', which emphasises early intervention and allows access under relatively lenient criteria (developmental delay) (Gavidia-Payne et al. 2024). In contrast, from age 9, access to the NDIS requires applicants to prove significant permanent disability. Families of older children may therefore face additional burdens in accessing support through the NDIS.

The NDIS has proven fertile ground for administrative burden scholarship, with an array of studies documenting participants' challenges gaining access to the scheme, managing funded supports, and dealing with administrative processes that often appear opaque or inconsistent (Disney et al. 2025; Devine et al. 2022; Yates et al. 2022; Malbon et al. 2022;

Russo, Brownlow, and Machin 2021). Carey, Crammond, and Malbon (2019) argue that the NDIS (in common with other 'personalised care' schemes) shifts responsibility for navigating complex systems of support onto individual beneficiaries, potentially expanding inequalities as those best able to cope with administrative demands capture a disproportionate share of the benefits. To illustrate, a parent may need to initially understand that their child may be eligible, assemble evidence of their child's disability, meet with staff from the NDIA or locally based partner organisations, identify and oversee the delivery of appropriate services for their child, and manage their child's budget over extended periods (Russo, Brownlow, and Machin 2021; Gavidia-Payne 2020). While the NDIS represents a highly significant aspect of disability support, it was not designed to fully replace support provided through 'mainstream' systems such as childcare, schools, or public health services (Dickinson and Yates 2023). To support their child effectively, parents must therefore orchestrate services and supports across government, health, educational, and private sector bureaucracies.

CONCEPTUALISING ADMINISTRATIVE CAPITAL

In the preceding discussion, we introduced administrative capital as a key individual-level resource with broad analytic value for administrative burden research. In this section, we develop the concept more systematically to clarify its origins, properties, and analytic scope. While Masood and Nisar's (2021) ethnographic study offers a valuable exposition of the concept, their application is limited to a homogeneous group of participants in a specific setting. They are therefore limited in their ability to explore important aspects of how administrative capital may be distributed across social groups or implicated in broader processes of inequality. We extend their framework by conceptualising administrative capital as grounded in broader social position and resources. We then consider how administrative capital may mediate access to public support, how it may operate across multiple policy domains, and the conditions where it is most likely to be influential.

Administrative capital and disability support

We first consider the genesis of administrative capital. Masood and Nisar (2021) argue that administrative capital is learned through repeated interactions with bureaucracy. We agree that learning may represent an important mechanism. However, we argue that this account of the origins of administrative capital is overly narrow and fails to connect the concept to broader systems of power and disadvantage. Notably, the idea that administrative capital reflects *only* learning through experience gives rise to implications which we consider untenable. First, because disadvantaged populations tend to interact with state bureaucracies more frequently, this suggests that disadvantaged groups should be relatively more adept at navigating those same bureaucracies. This implication is both counterintuitive and contradicted by empirical evidence that disadvantage – for instance poor health, poverty, or membership of minority ethnic groups – is linked to greater experiences of administrative burden (Chudnovsky and Peeters 2021; Bell et al. 2023; Christensen et al. 2020; Yang and Wang 2025; Halling and Baekgaard 2024). More broadly, a learning-based account provides no mechanism that could explain why administrative capital might covary with other aspects of social disadvantage or help to understand potential distributive implications of administrative burden – a key objective for the field (Moynihan and Herd 2019).

In response to these concerns, we argue that administrative capital – as the ability to understand and successfully navigate bureaucratic systems – should be understood as a field-specific capability that is underpinned by broader resources, including human, social, cultural, and financial capitals. Human capital (for instance education, cognitive resources, or mental health) may enable individuals to understand, organise, and plan to navigate bureaucratic settings (Christensen et al. 2020; Bell et al. 2023). Social networks may provide knowledge about administrative processes, advice, or practical support such as childcare during appointments. Cultural capital may enable individuals to appear credible or align their behaviour with the norms and expectations of middle class bureaucrats (Carey, Malbon, and

Blackwell 2021). Depending on the setting, financial capital may enable bribery, purchasing legal assistance or other forms of advocacy, access to evidence supporting eligibility from health professionals, or time away from work to address administrative issues. Because these constituent resources are unequally distributed, we expect administrative capital to be similarly unequal.

We note that, viewed as the product of these broader capitals, administrative capital may appear redundant. We argue that what differentiates administrative capital from its' constituent parts is its *field specificity*. It is the ability to effectively mobilise these resources within the context of bureaucratic systems, which may be characterised by specific norms, processes, and varying degrees of bureaucratic discretion. Crucially, the value of broader resources in this context depends on understanding how administrative systems work – what kind of evidence is persuasive, what rules are flexible, and how to interact with frontline bureaucrats. For instance, Masood and Nisar (2021) discuss bribery as a common strategy used to facilitate mothers' applications for maternity leave. Bribery is, however, illegal and the participants in their study reported using a variety of euphemisms to disguise the practice. Without this understanding of how to communicate discretely, we suspect that it is unlikely that this approach would be successful. This shows that approaches to navigating administrative systems may *require* broader resources, but those resources *do not in and of themselves guarantee success*. Administrative capital therefore depends on the availability of resources but represents the ability to effectively configure and deploy resources to achieve desired outcomes in bureaucratic systems. In practice, administrative capital may enable individuals to meet bureaucratic rules and expectations, compile persuasive evidence to support claims, or dispute adverse decisions, mitigating administrative burdens and increasing the likelihood of favourable outcomes.

Administrative capital and disability support

An important property of administrative capital is its potential *transferability* – that is, the same abilities, resources, connections, and knowledge may be applied across distinct administrative contexts. While the rules and procedures that apply to specific bureaucratic settings may vary, many features may be shared – for instance norms or administrative language. Similarly, competencies such as persistence, literacy, or effective self-presentation are likely to be valuable in dealing with a variety of administrative systems. Transferability has important distributive implications because administrative capital may enable individuals to assemble a package of supports through multiple public agencies – for instance income support, hospitals, schools, disability support, or public housing. In normative terms, public welfare systems typically aim to improve citizens' life chances – their health, wellbeing, or freedom from poverty. Because multiple public supports may influence these outcomes, administrative capital may contribute to cumulative (dis)advantage: those with high administrative capital are able to gain advantages repeatedly across systems, while those with limited administrative capital face compounding exclusion. Positioning administrative capital as a transferable resource therefore extends both its explanatory power and its relevance for research on inequality in complex welfare systems.

It is important to clarify the circumstances where administrative capital is most likely to be consequential. Masood and Nisar (2021) speculate that the effects of administrative capital will be greatest where the burdens associated with a particular policy are high. This likely corresponds to settings where street-level bureaucrats exercise a high degree of discretion (Malbon and Carey 2021), rules are complex or opaque, or compliance requirements are demanding. More generally, as a field-specific capability, we suggest that administrative capital should *directly* affect only administrative processes and outcomes. For broader outcomes, such as health, wellbeing, or poverty, we expect no direct effect of administrative capital. The relevance of administrative capital to these outcomes lies in

facilitating access to administrative supports, which in turn shape life chances. Conversely, more general forms of capital may be more influential for broader life chances, because they enable an array of strategies that do not depend on successful navigation of bureaucratic systems.

Based on the preceding discussion, we offer a revised definition of administrative capital: *Administrative capital is the capacity to achieve favourable outcomes within bureaucratic fields by mobilising understanding of bureaucratic rules, processes, and behaviours in combination with personal and social resources*. Our revised definition retains important elements of Masood and Nisar's (2021) original formulation, notably the emphasis on knowledge or understanding of bureaucratic fields and the stipulation that administrative capital is specific to bureaucratic systems. However, our definition emphasises that effective action in bureaucratic fields may depend on the ability to effectively mobilise broader social resources within this specific setting.

HYPOTHESES

Building on our discussion of administrative capital, we offer a series of hypotheses specific to our case study of support for children with disabilities which we then apply to our survey data about the experiences of parents of children with disability. Our hypotheses focus on three core aspects of administrative capital, its genesis in broader resources, its effect in shaping access to multiple forms of support, and its mediating role in social inequalities in access to public support.

First, we have argued that administrative capital is unequally distributed because it emerges from broader resources. In general, this may include many aspects of human, social, cultural, and financial capital. In the context of our study, we focus on three observed indicators of social resources: financial resources, parental education, and adult disability. We offer the following hypotheses:

H1a: Administrative capital is positively related to financial resources

H1b: Administrative capital is positively related to parental education

H1c: Administrative capital is negatively related to adult disability

Second, for administrative capital to be transferable, we have argued that it should be measured independently of specific policy contexts. In part this is a matter of avoiding question wording that refers directly to specific policy contexts. However, measured administrative capital should also be empirically independent of factors that 1) index differential exposure to administrative burden as a function of policy design, but 2) do not plausibly contribute to individuals' capacity to navigate administrative systems. To illustrate, in the current context, child age is likely to be related to parental experiences of burden and access to support because of the distinct access pathways. Similarly, parents of children with more complex support needs may face higher burdens because administrators lack sufficient understanding of their children or because they must deal with a wider range of providers, services, and supports. However, neither child age nor complexity of support needs should relate to parents' ability to navigate administrative systems *in general*.

H2: Administrative capital is unrelated to child age or complexity of support needs

Third, we have argued that administrative capital should be understood as *transferable* – influential across policy settings or domains. In our case study, we focus on three outcomes: NDIS participation, NDIS satisfaction, and unmet support needs. Importantly, unmet support needs may be affected, positively or negatively, by a range of administrative systems beyond the NDIS (e.g. health or education). While imperfect, our

analysis therefore enables us to test that administrative capital is influential across multiple administrative systems.

H3a: Administrative capital is positively related to NDIS participation

H3b: Administrative capital is positively related to NDIS satisfaction

H3c: Administrative capital is negatively related to unmet support needs

Finally, based on inequality and transferability, we suggest that administrative capital plays an important role in the emergence of social inequalities in access to support.

H4: Administrative capital mediates the relationships between resources (financial support, parental education, and adult disability) and child disability support (NDIS participation, NDIS satisfaction, and unmet needs)

METHODS

To investigate the relationships between administrative capital, family socio-economic background, and disability support outcomes, we collected new survey data from a sample of parents or primary carers (henceforth 'parents') of children with disabilities. Participants were recruited between July and October 2024 using Facebook advertising and email lists of supporting disability community organisations. Parents were eligible to participate in the study if they were resident in Australia and had at least one child with a disability aged 2-17. Parents with more than one child with a disability aged 2-17 were instructed to focus on the oldest child with a disability. After screening out repeat completions (n = 18), and minimally complete responses with no information on child disability support (n = 162), a total of 688 parents provided at least partial responses to the survey. Analysis for the current article

includes 618 parents (89.8%) who provided a minimum of five valid responses to the ten items in our administrative capital scale.

Measures

Administrative capital: Our measure of administrative capital included ten items covering a range of administrative or advocacy demands that parents may be faced with while supporting their child. Full wording is provided in table 1. Parents were asked to indicate how confident they felt in each scenario, with responses measured on an eleven-point scale from 0 ("Not at all confident") to 10 ("Very confident"). A 'Don't know' option was provided for each item. Reflecting the broad scope of advocacy that may be required of parents of children with disabilities, item content was designed by the authors to cover likely demands within public administration, healthcare, and education. Four additional items that were asked in the same battery were excluded because they were not clearly related to administrative tasks (e.g. 'Asking for help looking after your child from family or friends', 'Balancing your child's needs with your own').

Disability support: We considered three indicators of child disability support. First, a binary indicator of whether the child has a current NDIS plan was included. As discussed, NDIS funding is a crucial source of support for people with disability in the Australian context, so it is important to explore potential inequalities in access to NDIS support. Second, those with a current NDIS plan were asked to rate their satisfaction with different aspects of the NDIS and these questions were combined to construct an overall measure of NDIS satisfaction. Satisfaction with NDIS support represents an important outcome, as it may reflect the quality of service and support provided by a range of different actors engaged in the NDIS – including for example frontline bureaucrats, allied health, or other service providers – and challenges or barriers to support encountered by parents. Eleven items were included in the NDIS satisfaction scale, with each item rated on an eleven-point scale from 0

Table 1: Administrative capital item wording

The following questions are about **how confident** you feel in different scenarios you may encounter while seeking support **for your child**. For each scenario, please select a number between 0 and 10 that indicates how confident you feel. The more confident you are, the higher the number you should pick. The less confident you are, the lower the number. (Response options for all items range from 0 "Not at all confident" to 10 "Very confident". "Not applicable" option provided.) *(1) 'Talking to doctors or other health professionals about your child?'* *(2) 'Requesting additional support for your child at school or childcare?'* *(3) 'Applying for government support for your child?'* *(4) 'Understanding information about your child's disability or health condition?'* *(5) 'Seeking a second medical opinion about your child's development?'* *(6) 'Finding the right services and supports for your child?'* *(7) 'Communicating your child's needs to school or childcare?'* *(8) 'Ensuring quality of care for your child in therapy or healthcare?'* *(9) 'Managing your child's services and supports?'* *(10) 'Disputing an administrative decision about your child's support?'*

"Not at all satisfied" to 10 "Very satisfied". Parents were also presented with a "Don't know/NA" option for all items. Items were designed to cover different stages of engagement with the NDIS, support quality, and administrative processes surrounding NDIS participation. Example items include 'The application and planning process', 'Your child's outcomes from engaging with NDIS funded services', 'The process of managing your child's NDIS funded services', 'The quality of information about the NDIS', and 'My interactions with the National Disability Insurance Agency'. Cronbach's alpha for the scale was 0.90, indicating very high internal reliability. Our overall NDIS satisfaction scale was constructed by taking the mean of non-missing items for each parent (with a minimum of six non-missing items). The resulting scale was converted to z-scores for analysis. Third, children with disabilities are likely to receive support from a range of sources, and access to NDIS funding is insufficient to guarantee that the child's needs will be well-met. To address this, parents were asked whether there were services or supports that the child needed but could not get in the past year. Nine categories of potential unmet need were presented, and parents were instructed to select all applicable options. Options included 'Therapy', 'Medical care', 'Aids, equipment, or assistive technology', 'School based support for learning', 'Modifications to home

environment', 'Support workers', 'Access to community activities', 'Transport', or 'Other'. To assess overall breadth of unmet needs, we constructed a count of the number of different categories of unmet needs, ranging from zero to nine.

Child disability: Child disability was assessed as functional difficulties. The Washington Group/UNICEF Module on Child Functioning (WG-MCF; (Cappa et al. 2018; Loeb et al. 2018) was used to capture the child's functional difficulties. Questions in the WG-MCF are structured by age (2-4 vs. 5-17) to allow for distinct stages of development, and assess how much difficulty the child encounters performing a range of activities with or without assistance. For children aged 2-4, seeing, hearing, walking, fine motor, communication, learning, behaviour, and play domains were measured. Children aged 5-17 were assessed on seeing, hearing, walking, self-care, communication, learning, remembering, concentrating, behaviour, accepting change, making friends, anxiety, and depression. Established cut-points (Cappa et al. 2018) were used to categorise each activity domain into 'no disability' or 'disability'. For most domains, children are categorised as having 'no functional disability' if they are reported to have 'no difficulty' or 'some difficulty' performing the activity, whereas those who are reported to have 'a lot of difficulty' or 'cannot do at all' are regarded as having 'functional disability'. To enable comparison across age groups and to account for low prevalence of some types of functional disability, we further grouped domains into 'sensory' (seeing, hearing), 'physical' (age 2-4: walking, fine motor; age 5-17: walking), 'communication', 'cognitive', 'social/behavioural', 'mental health' (age 5-17 only: anxiety, depression), and 'self-care' (age 5-17 only). The count of how many different domains of functional disability the child experiences is used as a summary measure of functional disability.

Sociodemographic background: Parent, and family sociodemographic indicators were included in analysis. Parent characteristics included highest level of education ('degree' vs.

'no degree'), partnership status ('single' vs. 'partnered'), Indigenous status ('non-Indigenous' vs. 'Aboriginal or Torres Strait islander'), language spoken at home ('English only' vs. 'language other than English'), age in years, and sex. The presence of an adult with a disability was recorded by asking if there is any adult household member with a 'long term health condition, disability or impairment that has lasted, or is likely to last, 6 months or more, restricts everyday activity, and cannot be corrected by medication or medical aids. We note that this item does not enable us to clearly distinguish whether the responding parent has a disability and/or another adult household member has a disability. Financial resources were operationalised using a composite measure constructed from household income (pre-tax annual income from all sources, equivalised using the OECD scale and log transformed) and two items asking about the respondent's satisfaction with their financial situation (on an eleven-point scale from 'totally dissatisfied' to 'totally satisfied') and their perception of their family's financial position 'given their needs and financial responsibilities' (on a six-point scale from 'prosperous' to 'poor'). We elected to measure financial resources in this way because, while income represents a crucial dimension of financial capacity, it does not capture many important aspects of a family's financial position, including savings, assets, and costs (which may be particularly important for people with disabilities). Including subjective assessments of financial position enables us to better incorporate these considerations. Owing to the varying measurement scales, principal components analysis was used to construct a composite measure, which was transformed to z-scores for analysis to ease interpretation.

Child age group was coded as 2-4, 5-8, 9-12, and 13-17. This grouping was selected to capture stages of development (preschool, middle childhood, adolescence) and in response to the age limit (under 9) for access to the NDIS under the 'early childhood approach'.

Analysis

To measure administrative capital and investigate links with disability support outcomes, child disability, and parent/family characteristics, we employed a structural equation modelling approach. Analysis was conducted in Stata 19.5 using the `sem` command. We first tested a measurement model for administrative capital using a confirmatory factor analysis (CFA). In the preceding discussion, administrative capital was conceptualised as a set of resources, knowledge, dispositions, and competencies that can be deployed to facilitate successful engagement with a broad range of administrative systems. Based on this conceptualisation, we postulated a single factor structure for administrative capital. Quality of model fit was assessed based on established criteria, including Root Mean Square Error of Approximation (RMSEA) ≤ 0.06 and Comparative Fit Index (CFI) ≥ 0.95 (Hu and Bentler 1999). Because the factor structure of the administrative capital scale has not been previously investigated, we considered modification indices to incorporate potential error covariances that may reflect overlap in item content, similarities in wording, or item order. The variance of the latent administrative capital variable was fixed to 1 in the CFA. The factor loading for the first item ('Talking to doctors or other health professionals about your child') is then fixed to the value estimated from the CFA in subsequent structural models, when administrative capital is an endogenous variable and it is not possible to directly fix the variance. This means that structural parameter estimates are approximately interpretable in terms of standard deviation units of latent administrative capital.

Our structural models take the following form:

$$A_i = \gamma_0 + \boldsymbol{\gamma_x X_i} + \varepsilon_i$$

$$\boldsymbol{Y}_i = \boldsymbol{\beta_{y0}} + \boldsymbol{\beta_{y1}} A_i + \boldsymbol{\beta_x X}_i + \boldsymbol{\epsilon_i}$$

Where A_i is (latent) administrative capital, $\boldsymbol{Y}_i$ is a vector of child disability support outcomes, and $\boldsymbol{X}_i$ is a vector of child, parent, and family characteristics and controls. Models were

estimated using Full Information Maximum Likelihood (FIML) (Enders 2010). FIML incorporates cases with partial missing data under a 'Missing at Random' (MAR) assumption that stipulates that missingness is random conditional on covariates. This is superior to traditional casewise deletion approaches in that unbiased estimates are obtainable under weaker assumptions and is important to preserve analytic power given our relatively small analytic sample. We report robust standard errors in all instances to accommodate potential heteroskedasticity. Indirect effects are calculated using the product-of-coefficients method ($\gamma_x \beta_{y1}$) and delta-method standard errors (Sobel 1982) are reported for indirect and total effects.

We note that our model represents a linear specification for all outcome variables, including binary (NDIS plan) and count (number of unmet needs) variables. The linear specification was selected over alternative possible models (e.g. logit or poisson) for several reasons. First, the linear specification enables estimation by FIML (Enders 2010) with the advantages noted above. Second, we are interested in potential mediated effects through administrative capital, but standard mediation analysis breaks down with non-linear models because parameters for the mediator and outcome are estimated on different scales. Third, linear model parameters are more easily interpretable than logistic or poisson parameters, even after common transformations to odds ratios or incidence rate ratios (Hellevik 2009; Mood 2010). Fourth, linear models may introduce bias into parameters when predicted values approach or exceed the bounds of the dependent variable (e.g. predicted probabilities less than zero or greater than one; predicted counts less than zero). To address this issue, we conducted a sensitivity analysis by comparing linear models with appropriate non-linear models for NDIS participation (logit) or number of unmet needs (poisson), using the subject-specific mean of the administrative capital items as an alternative (treated as observed) measure. This analysis (online appendix A) showed that a small proportion of the

fitted values from the linear models exceed the bounds of the dependent variable (predicted probability greater than 1 of NDIS participation or count of unmet needs less than zero) and indicated some divergences between the fitted values in the tails. However, linear model parameters were effectively indistinguishable (in terms of sign, magnitude, and statistical significance) from corresponding marginal effect estimates from the poisson or logit models, suggesting that the use of a linear model is unlikely to have introduced substantial bias to our parameter estimates.

RESULTS

Table 2 presents summary statistics for the analytic sample. Means and standard deviations are presented for continuous variables and percentages are presented for categorical variables. The percentage of missing cases is also included for all variables. Means for the administrative capital indicators are clustered towards the centre of the (0-10) scale, suggesting that there are unlikely to be floor/ceiling effects. There was a slightly higher proportion of missing values for the 'seeking second medical opinion about child's development' and 'disputing administrative decision about child's support' items, which may reflect relatively less experience of these activities among parents. Most children (72.5%) had a NDIS plan and children had on average 2.3 unmet needs. The average number of different functional difficulties was 2.3 and children were mostly school-age or older, with only 12.5% aged 2-4. For families, most parents (69.9%) had a university degree, suggesting that the analytic sample represents a substantially more educated group than the general population. Slightly less than half of all households (43.7%) included an adult with a disability. Most parents were female (95.6%), partnered (78.9%), spoke English only at home (88.7%), and were non-Indigenous (97.5%). A majority of families lived in major cities (75.5%). There was relatively little missing data apart from parent age (11.8%) and financial resources (11.2%).

Table 2: Sample summary statistics (N = 618)

	Mean / %	SD	Missing %
Administrative capital items (abbreviated wording)			
(1) 'Talk to doctors or health professionals about child'	7.6	(2.2)	2.3%
(2) 'Request support for child at school/childcare'	5.7	(2.9)	7.4%
(3) 'Apply for government support for child'	4.6	(2.9)	9.9%
(4) 'Understand information about child's disability'	8.1	(2.0)	2.9%
(5) 'Seek second medical opinion child's development'	6.3	(2.8)	12.6%
(6) 'Find the right services and supports for child'	5.3	(2.6)	6.1%
(7) 'Communicate child's needs to school/childcare'	6.8	(2.5)	4.0%
(8) 'Ensure quality of care for child in therapy/healthcare'	6.5	(2.5)	6.6%
(9) 'Manage child's services and supports'	6.3	(2.6)	8.9%
(10) 'Dispute administrative decision about child's support'	4.8	(3.0)	14.9%
Child disability support outcomes			
Child has NDIS plan			
No	27.5%		0.0%
Yes	72.5%		
Child number of unmet needs	2.3	(1.8)	1.0%
NDIS satisfaction	0.0	(1.0)	28.6%
Child characteristics			
Number of functional difficulties	2.3	(1.3)	0.0%
Child age group			
Age 2-4 years	12.5%		0.0%
Age 5-8 years	28.3%		
Age 9-12 years	35.4%		
Age 13-17 years	23.8%		
Parent/family resources and characteristics			
Financial resources	0.0	(1.0)	11.2%
Parent education			
Less than degree	30.1%		2.6%
Degree	69.9%		
Adult disability			
No adult with disability in household	56.3%		2.6%
Adult with disability in household	43.7%		
Parent age (years)	42.4	(6.5)	11.8%
Parent sex			
Male	4.4%		3.9%
Female	95.6%		
Location			
Major cities	75.5%		2.8%
Regional or remote	24.5%		
Language at home			
English only	88.7%		2.6%
Language other than English	11.3%		
Indigenous status			
Not indigenous	97.5%		2.8%
Aboriginal or Torres Strait Islander	2.5%		
Parent relationship status			
Not partnered	21.1%		2.8
Partnered	78.9%		

Table 3: Administrative capital CFA factor loadings

	Loading	SE	Error variance
Administrative capital items (abbreviated wording)			
(1) 'Talk to doctors or health professionals about child'	1.39	(0.09)	2.94
(2) 'Request support for child at school/childcare'	1.56	(0.12)	5.77
(3) 'Apply for government support for child'	1.88	(0.12)	5.05
(4) 'Understand information about child's disability'	0.91	(0.08)	3.16
(5) 'Seek second medical opinion child's development'	1.88	(0.11)	4.47
(6) 'Find the right services and supports for child'	1.81	(0.10)	3.54
(7) 'Communicate child's needs to school/childcare'	1.45	(0.10)	4.09
(8) 'Ensure quality of care for child in therapy/healthcare'	1.80	(0.09)	2.85
(9) 'Manage child's services and supports'	1.75	(0.10)	3.70
(10) 'Dispute administrative decision about child's support'	1.76	(0.13)	5.95
Error covariances			
Cov([*1*],[*4*])	0.60	(0.13)	
Cov([*1*],[*5*])	1.01	(0.18)	
Cov([*2*],[*7*])	2.36	(0.25)	
Variances			
Var(*Administrative capital*) – fixed	1	-	

N = 618. Full Information Maximum Likelihood estimates. Robust standard errors in parentheses. CFA: Confirmatory Factor Analysis.

To measure administrative capital, we first fitted a single factor CFA with independent errors. This model exhibited sub-optimal fit (CFI = 0.87; RMSEA = 0.11), and we therefore considered incorporating error covariances based on modification indices. Three error covariances were strongly indicated by the modification indices and were judged to be theoretically supportable on grounds of similarities in item content ('*Request support for child at school/childcare*' with '*Communicate child's needs to school/childcare*', and '*Talk to doctors or health professionals about child*' with both '*Understand information about child's disability*' and '*Seek second medical opinion about child's development*'). The revised model incorporating these error covariances provided acceptable fit (CFI = 0.96; RMSEA = 0.06) and was retained for subsequent analysis. Table 3 reports item loadings and error variances/covariances.

We next investigated potential predictors of administrative capital, including child functional disability, child age, family socio-economic status (financial resources and parent education), adult disability, and parent's cultural background. Estimates in table 4 (column 1) show that only financial resources (0.19, ±0.06, $p<0.01$) exhibited a statistically significant

Table 4: Main estimates

	Administrative capital	Unmet needs	NDIS plan	NDIS satisfaction
Administrative capital				
Administrative capital		-0.25**	0.11***	0.44***
		(0.08)	*(0.02)*	*(0.07)*
Child characteristics				
Number of functional difficulties	0.05	0.40***	0.09***	-0.12***
	(0.03)	*(0.05)*	*(0.01)*	*(0.03)*
Child age group *(vs age 2-4 years)*				
Age 5-8 years	-0.17	-0.21	-0.12*	-0.10
	(0.14)	*(0.19)*	*(0.05)*	*(0.14)*
Age 9-12 years	-0.29	0.17	-0.18**	-0.39**
	(0.15)	*(0.21)*	*(0.06)*	*(0.14)*
Age 13-17 years	-0.08	0.23	-0.29***	-0.65***
	(0.17)	*(0.23)*	*(0.07)*	*(0.17)*
Socio-economic status				
Financial resources	0.19**	-0.45***	0.00	0.07
	(0.06)	*(0.08)*	*(0.02)*	*(0.05)*
Parent education	0.10	0.34*	-0.01	-0.09
Degree (vs. no degree)	*(0.11)*	*(0.15)*	*(0.04)*	*(0.10)*
Disability				
Adult disability (vs no adult disability)	-0.13	0.54***	0.07	-0.27**
	(0.09)	*(0.14)*	*(0.04)*	*(0.09)*

N = 618. Full Information Maximum Likelihood estimates. Robust standard errors in parentheses. Adjusted for parent age, parent sex, relationship status, and regional/remote residence.

association with administrative capital. We found no evidence that parent education or adult disability were associated with administrative capital after adjustment for potential confounders. H1a was therefore supported, while H1b and H1c were not supported. Consistent with H2, we found no evidence that administrative capital was associated with child age or child functional difficulties.

Columns 2-4 of table 4 show estimated effects of administrative capital, child characteristics, and parent/family resources on child disability support. Depending on the outcome, estimates are expressed as difference in number of unmet needs, percentage points (NDIS participation), or sample standard deviations (NDIS satisfaction). Administrative capital is strongly associated with all child disability support outcomes in the anticipated direction. Specifically, a one standard deviation increase in administrative capital is associated with less unmet needs (-0.25, ±0.08, $p<0.01$), approximately eleven percentage points greater NDIS participation (0.11, ±0.02, $p<0.001$), and slightly less than half of a standard deviation higher NDIS satisfaction (0.44, ±0.07, $p<0.001$). H3 is therefore strongly supported for all outcomes.

As we would anticipate, higher child functional difficulty was strongly linked to greater unmet need (0.40, ±0.05, $p<0.001$) and lower NDIS satisfaction (-0.12, ±0.03, $p<0.001$), but higher NDIS participation (0.09, ±0.01, $p<0.001$). Older children were also much less likely to be NDIS participants, and their parents reported much lower satisfaction with the NDIS. The magnitude of these effects was large, with adolescents (aged 13-17 years) estimated to be twenty-nine percentage points less likely to have a NDIS plan in comparison to children aged under five years. Child age was not, however, associated with number of unmet needs. Financial resources were strongly negatively associated with number of unmet needs (-0.45, ±0.08, $p<0.001$), but had no statistically significant (direct) relationship to either NDIS participation or NDIS satisfaction. Contrary to expectations, higher parental education

Table 5: Mediational effects

	Unmet needs			NDIS plan			NDIS satisfaction		
	Direct effect	Indirect effect	Total effect	Direct effect	Indirect effect	Total effect	Direct effect	Indirect effect	Total effect
Socio-economic status									
Financial resources	-0.454***	-0.048*	-0.502***	0.003	0.021**	0.024	0.072	0.086**	0.158**
	(0.075)	*(0.020)*	*(0.072)*	*(0.021)*	*(0.007)*	*(0.020)*	*(0.053)*	*(0.028)*	*(0.053)*

N = 618. Full Information Maximum Likelihood estimates. Standard errors in parentheses. Delta-method standard errors are reported for indirect and total effects.

(degree vs. no degree) was associated with slightly higher unmet needs (0.34, ±0.15, $p<0.05$), but showed no relationship with NDIS participation or NDIS satisfaction. Adult disability was strongly predictive of higher child unmet needs (0.54, ±0.14, $p<0.001$) and lower NDIS satisfaction (-0.27, ±0.09, $p<0.01$), but was not found to predict child NDIS participation.

We next investigated potential mediational effects operating through administrative capital. Because only financial resources were associated with administrative capital, we did not expect to find significant indirect effects for other child or family characteristics. In the interests of brevity, we therefore report (in Table 5) mediational effects for financial resources only. Full results (not shown) confirm that all other indirect effects were not statistically significant. As hypothesised (H4), we find significant indirect effects of financial resources on child disability support operating through administrative capital. Specifically, indirect effects of financial resources through administrative capital included lower unmet needs (-0.048, ±0.02, $p<0.05$), increased likelihood of child NDIS participation (0.021, ±0.007, $p<0.01$), and higher NDIS satisfaction (0.086, ±0.028, $p<0.01$). Notably, indirect effects through administrative capital appeared to represent a substantially greater proportion of the total effects of financial resources for NDIS participation (~88%) or NDIS satisfaction (~54%) in comparison to unmet needs (~10%).

We also considered two alternative formulations of administrative capital. Our first alternative measure was constructed by retaining only 'general administration' items that do not refer to health or education settings. Specifically, this included '*Applying for government support for your child*', '*Finding the right services and supports for your child*', '*Managing your child's services and supports*', and '*Disputing an administrative decision about your child's supports*'. To construct our second alternative measure, we kept only 'health administration' items, including '*Talking to doctors or other health professionals about your*

Table 6: Predictors of alternative 'administrative capital' measures

	All items	*'General administration' items*[1]	*'Health administration' items*[2]
Child characteristics			
Number of functional difficulties	0.05	-0.02	-0.03
	(0.03)	*(0.04)*	*(0.04)*
Child age group *(vs age 2-4 years)*			
Age 5-8 years	-0.17	-0.33*	-0.09
	(0.14)	*(0.16)*	*(0.16)*
Age 9-12 years	-0.29	-0.50**	0.10
	(0.15)	*(0.16)*	*(0.16)*
Age 13-17 years	-0.08	-0.33	0.11
	(0.17)	*(0.19)*	*(0.18)*
Socio-economic status			
Financial resources	0.19**	0.26***	0.17**
	(0.06)	*(0.06)*	*(0.06)*
Parent education	0.10	0.07	0.18
Degree (vs. no degree)	*(0.11)*	*(0.11)*	*(0.10)*
Disability			
Adult disability (vs no adult disability)	-0.13	-0.13	-0.05
	(0.09)	*(0.10*	*(0.10)*

N = 618. Full Information Maximum Likelihood estimates. Robust standard errors in parentheses. Adjusted for parent age, parent sex, relationship status, and regional/remote residence.
1: Administrative capital measured using 'General administration' indicators: [3] '*Applying for government support for your child*', [6] '*Finding the right services and supports for your child*', [9] '*Managing your child's services and supports*', [10] '*Disputing an administrative decision about your child's support*'. 2: Administrative capital measured using 'health administration' indicators: [1] '*Talking to doctors or other health professionals about your child*', [4] '*Understanding information about your child's disability or health condition*', [5] '*Seeking a second medical opinion about your child's development*', [8] '*Ensuring quality of care for your child in therapy or healthcare*'

Table 7: Alternative 'administrative capital' measures – association with outcomes.

	Unmet needs	NDIS plan	NDIS satisfaction
Administrative capital – alternative measures			
Administrative capital – all items	-0.25**	0.11***	0.44***
	(0.08)	*(0.02)*	*(0.07)*
Administrative capital – 'general administration' items[1]	-0.27***	0.15***	0.52***
	(0.08)	*(0.02)*	*(0.06)*
Administrative capital – 'health administration' items[2]	-0.19**	0.07**	0.28***
	(0.07)	*(0.02)*	*(0.05)*

N = 618. Full Information Maximum Likelihood estimates. Robust standard errors in parentheses. Adjusted for child functional disability, child age, financial resources, parent education, adult disability, language spoken at home, indigenous status, parent age, parent sex, relationship status, and regional/remote residence. 1: Administrative capital indicators excluding 'health' and 'education': [3] '*Applying for government support for your child*', [6] '*Finding the right services and supports for your child*', [9] '*Managing your child's services and supports*', [10] '*Disputing an administrative decision about your child's support*'. 2: Administrative capital indicators 'health' only: [1] '*Talking to doctors or other health professionals about your child*', [4] '*Understanding information about your child's disability or health condition*', [5] '*Seeking a second medical opinion about your child's development*', [8] '*Ensuring quality of care for your child in therapy or healthcare*'

Table 8: Indirect effects for alternative 'administrative capital measures

	Unmet needs			NDIS plan			NDIS satisfaction		
	Direct effect	Indirect effect	Total effect	Direct effect	Indirect effect	Total effect	Direct effect	Indirect effect	Total effect
				(A) Administrative capital – all items					
Socio-economic status									
Financial resources	-0.454***	-0.048*	-0.502***	0.003	0.021**	0.024	0.072	0.086**	0.158**
	(0.075)	*(0.020)*	*(0.072)*	*(0.021)*	*(0.007)*	*(0.020)*	*(0.053)*	*(0.028)*	*(0.053)*
				(B) Administrative capital – 'general administration' items[1]					
Socio-economic status									
Financial resources	-0.433***	-0.069**	-0.502***	-0.014	0.038***	0.024	0.036	0.132***	0.168**
	(0.077)	*(0.024)*	*(0.074)*	*(0.021)*	*(0.010)*	*(0.021)*	*(0.050)*	*(0.032)*	*(0.051)*
				(C) Administrative capital – 'health administration' items[2]					
Socio-economic status									
Financial resources	-0.472***	-0.032*	-0.503***	0.013	0.012*	0.025	0.105*	0.048**	0.153**
	(0.075)	*(0.016)*	*(0.074)*	*(0.021)*	*(0.005)*	*(0.021)*	*(0.051)*	*(0.018)*	*(0.052)*

N = 618. Full Information Maximum Likelihood estimates. Standard errors in parentheses. Delta-method standard errors are reported for indirect and total effects. 1: Administrative capital measured using 'General administration' indicators: [3] '*Applying for government support for your child*', [6] '*Finding the right services and supports for your child*', [9] '*Managing your child's services and supports*', [10] '*Disputing an administrative decision about your child's support*'. 2: Administrative capital measured using 'health administration' indicators: [1] '*Talking to doctors or other health professionals about your child*', [4] '*Understanding information about your child's disability or health condition*', [5] '*Seeking a second medical opinion about your child's development*', [8] '*Ensuring quality of care for your child in therapy or healthcare*'

child', '*Understanding information about your child's disability or health condition*', '*Seeking a second medical opinion about your child's development*', and '*Ensuring quality of care for your child in therapy or healthcare*'. Determinants of these alternative measures, their associations with child disability support, and estimated indirect effects are presented in tables 6, 7, and 8 respectively.

Predictors (table 6) were very similar to our main analysis, although it is notable that financial resources were somewhat more strongly associated with the 'general administration' measure of administrative capital (0.26, ±0.06, $p<0.001$) than either the 'all items' measure (0.19, ±0.06, $p<0.01$) or the 'health administration' measure (0.17, ±0.06, $p<0.01$). We also found some evidence that older child age was associated with lower scores on the 'general administration' measure of administrative capital, contrary to our main analysis and findings using the 'health administration' measure. Effects on disability support outcomes using our alternative measures (table 7) support similar substantive conclusions across all measures, although the 'general administration' measure is a notably stronger predictor than either the 'all items' or 'health administration' measures. This pattern is particularly pronounced for NDIS participation and NDIS satisfaction, where the 'general administration' version of administrative capital exhibits effects that are roughly twice as strong as the 'health administration' measure'. Specifically, the 'general administration' scale is very strongly linked to NDIS participation (0.15, ±0.02, $p<0.001$) and NDIS satisfaction (0.52, ±0.06, $p<0.001$). In comparison, while statistically significant, effects for the 'health administration' alternative measure are substantially weaker (NDIS participation: 0.07, ±0.02, $p<0.01$; NDIS satisfaction: 0.28, ±0.28, $p<0.001$). Reflecting these findings, indirect effects of financial resources (table 8) are also notably stronger using the 'general administration' measure (panel B) than either our main 'all items' analysis (panel A) or the 'health administration' alternative (panel C).

DISCUSSION

Research on administrative burden has shown that barriers and costs associated with accessing public services are not experienced equally (Carey, Malbon, and Blackwell 2021; Moynihan and Herd 2019; Halling and Baekgaard 2024). These burdens are unequally distributed and shaped by the intersection of policy design and the capabilities that individuals bring to their interactions with public services (Christensen et al. 2020; Bell et al. 2023; Yang and Wang 2025; Daigneault and Macé 2020). In this study, we contributed to understanding how individual resources contribute to unequal access to public support by drawing on Masood and Nisar's (2021) concept of administrative capital.

Building on Masood and Nisar's (2021) ethnographic work, we extended the concept in three ways. First, we argued that, in addition to the learning processes which Masood and Nisar (2021) discuss, administrative capital should be understood as emerging from broader forms of resources and capital. This provides a conceptual mechanism that can explain how administrative capital may be unequally distributed in the population and therefore contribute to inequalities in public support. Second, we propose that administrative capital represents a transferable resource which can be leveraged by individuals in their interactions with multiple service systems. Third, we developed and tested a survey-based measure of administrative capital, extending the application of the concept to quantitative research on administrative burden. We tested our proposed framework in the context of Australian children with disabilities and their families, a population that encounters substantial administrative burdens (Russo, Brownlow, and Machin 2021; Gavidia-Payne 2020) and must navigate multiple complex bureaucratic systems including the NDIS, health systems, and schools. Our findings show that administrative capital is positively associated with socio-economic status, strongly predicts multiple disability support outcomes, and mediates the relationship between socio-economic status and administrative support. These findings suggest that administrative

capital may play an important role in explaining inequalities in administrative burden and access to public services.

The concept of administrative capital adds explanatory power to existing models of administrative burden. While previous research has demonstrated that access to public support varies with individual characteristics such as education, health, cognitive ability, and income (Bell et al. 2023; Yang and Wang 2025; Halling and Baekgaard 2024; Christensen et al. 2020; Daigneault and Macé 2020; Döring 2021; Döring and Madsen 2022), our findings suggest that these relationships are at least partly mediated by differences in individuals' capacity to navigate bureaucratic systems. Administrative capital makes visible the mechanisms by which social advantage is converted into differential access to public support, offering a clearer account of why ostensibly equal entitlements produce unequal outcomes. Specifically, we found that administrative capital predicts access to and satisfaction with support in domains governed by complex administrative rules, and that it mediates the effect of financial resources on these outcomes. These findings help to locate the citizen more centrally in the explanatory architecture of administrative burden theory as a socially situated actor with varying capabilities to engage the state. In doing so, administrative capital may represent a critical link between broader social inequalities and the realised outcomes of public policy.

The pattern of associations across outcome types underscores the field-specific nature of administrative capital. We found the strongest effects where access to support was highly mediated by formal administrative processes: participation in, and satisfaction with, the NDIS. These outcomes require individuals to interpret eligibility rules, assemble documentation, interact with frontline staff, and navigate discretionary decisions. By contrast, administrative capital showed weaker associations with the broader measure of unmet needs, where access may be achieved through alternative pathways such as private provision,

informal care, or mainstream services with less stringent access requirements. Notably, broader resources (financial resources, education, adult disability) were strongly predictive of unmet needs but had minimal or no direct effect on NDIS participation or satisfaction. This distinction supports our argument that administrative capital is best understood as a field-specific capability for navigating administrative systems, rather than a more general determinant of life chances.

Administrative capital offers a useful lens for understanding how individual capabilities can contribute to unequal access to public support. While administrative burdens are often framed as barriers, they can also serve legitimate policy or regulatory purposes such as ensuring compliance, protecting public resources, or targeting support to those most in need (Moynihan and Herd 2019). The challenge is that burdens, even when justified, do not fall evenly. Our findings suggest that citizens with greater administrative capital are better able to navigate complex systems, access support, and secure favourable outcomes. These insights have important policy implications. First, they point to the importance of reducing unnecessary complexity in policy design, particularly in programs that target disadvantaged populations. This may include elimination of unnecessary compliance activities, clearer communication, simplified documentation requirements, or greater consistency in procedural expectations. Second, there is a need to recognise and compensate for unequal administrative capability. Some degree of burden will always be present in public systems. In these cases, policy should invest in institutional supports that help individuals navigate complexity. This may include, for example, advocacy roles, peer support programs, or navigators, such as those proposed in ongoing NDIS reforms (Department of Prime Minister and Cabinet 2023). Some previous research (Nisar 2018) indicates that third parties such as non-governmental organisations can mitigate administrative burdens by supporting disadvantaged groups to access support, but more evidence on this point is an important future direction.

Administrative capital and disability support

An important methodological contribution of this study is the development and application of a survey-based measure of administrative capital. While Masood and Nisar (2021) theorised administrative capital as a powerful capability for navigating bureaucratic systems, to our knowledge the concept had not previously been applied to quantitative research. Notably, published measures of related concepts such as administrative literacy (Döring and Madsen 2022) have tended to be program specific and are therefore difficult to adapt directly to alternative policy domains. In contrast, our measure is designed to avoid reference to specific policy domains and may therefore be more straightforward to apply in new settings. While elements of our scale may need to be updated (e.g. changing the identity of the beneficiary from 'my child' to 'myself' or 'my family') and some items may not be relevant for all populations, these changes are relatively minor. In particular, the subset of 'general administration' items were more strongly predictive of disability support outcomes than the full scale, appear relevant to many populations and policy contexts, and may offer a valuable brief measure of administrative capital.

At the same time, several limitations should be noted. First, our data are observational and cross-sectional, limiting opportunities for causal inference and to explore how administrative capital may develop over time as individuals interact with bureaucratic systems. Observed associations between administrative capital and access to support may also partially reflect reverse causality if successful past interactions with administrative systems lead respondents to believe that they will be successful in future. Future research using longitudinal and experimental study designs would help to disentangle these possibilities and clarify the extent to which administrative capital emerges from learning (as posited by Masood and Nisar (2021)) or reflects broader resources, as we have argued here. Second, while we argue that administrative capital emerges from broader resources, the survey did not include direct measures of social or cultural capital, limiting our ability to

explore those pathways empirically. Further studies investigating determinants of administrative capital would be valuable in this regard. Third, although the scale was designed to reflect transferable capabilities, findings from our test of H2 indicate that some items, particularly the 'general administration' items, varied with child age. This may reflect differences in administrative requirements across age cohorts, suggesting that researchers should avoid assuming that measured administrative capital is entirely independent of policy design. While further scale refinement may mitigate these concerns, this indicates that analysts should seek to account for features of policy design that may contribute to differential exposure to administrative burdens.

This study offers a foundation for incorporating administrative capital into quantitative research on administrative burden, but there is significant scope for future development. First, longitudinal research is needed to explore how administrative capital develops over time, and to clarify its temporal role in shaping access to support and outcomes. A key question is whether administrative capital is primarily stable, reflecting relatively enduring individual resources, or if it can be meaningfully improved through interaction, training, or institutional design. Second, future research should examine how the importance of administrative capital varies depending on policy context. As Masood and Nisar (2021) conjecture, we expect administrative capital to have stronger effects where access to support is highly burdensome, discretionary, or opaque, and weaker effects in low-burden or automatic entitlement settings. Third, to test its transferability more rigorously, administrative capital should be studied across a broader range of administrative systems (e.g. health care, public housing, social security, and aged care) to assess whether a single measure can predict outcomes in diverse policy settings. Fourth, research should explore the role of administrative capital in shaping citizens' subjective experiences of administrative burden. While this study focused on service access, the conceptual literature highlights learning,

compliance, and psychological costs as distinct forms of burden (Moynihan, Herd, and Harvey 2015; Moynihan and Herd 2019; Baekgaard and Tankink 2022; Halling and Baekgaard 2024). Studies such as Döring and Madsen (2022) suggest that administrative capabilities may mitigate these burdens but further empirical testing is needed. Taken together, these extensions would help consolidate administrative capital as a core construct in administrative burden theory and deepen understanding of the mechanisms through which resources and institutions generate unequal access to public support.

CONCLUSION

Building on administrative burden theory (Moynihan and Herd 2019) and the work of Masood and Nisar (2021), we have argued that administrative capital serves as a key mechanism through which broader social advantages are translated into successful interactions with the state. In developing and validating a new measure of administrative capital, we have shown that it is unequally distributed, shaped by financial resources, and predictive of outcomes in bureaucratically mediated domains such as disability support. Administrative capital offers a way to explain why individuals facing the same formal rules may nonetheless experience very different administrative outcomes. By conceptualising administrative capital as a distinct construct and demonstrating its empirical value, this study opens new pathways for understanding inequality in access to public support and designing systems that recognise and respond to the diverse capacities of the citizens they serve.

Data availability statement: Data underlying this article cannot be shared publicly because ethical approval for the study indicated that participants' data would not be shared beyond the researchers.

REFERENCES

Baekgaard, M., and T. Tankink. 2022. "Administrative Burden: Untangling a Bowl of Conceptual Spaghetti." *Perspectives on Public Management and Governance* 5 (1): 16-21. https://doi.org/ARTN gvab027 10.1093/ppmgov/gvab027. <Go to ISI>://WOS:000755950200004.

Bell, E., J. Christensen, P. Herd, and D. Moynihan. 2023. "Health in citizen-state interactions: How physical and mental health problems shape experiences of administrative burden and reduce take-up." *Public Administration Review* 83 (2): 385-400. https://doi.org/10.1111/puar.13568. <Go to ISI>://WOS:000895839900001.

Bourdieu, P. 1986. *Distinction: A Social Critique of the Judgement of Taste*. Edited by Handbook of Theory and Research for the Sociology of Education. Cambridge, MA: Harvard University Press.

Burden, B. C., D. T. Canon, K. R. Mayer, and D. P. Moynihan. 2012. "The Effect of Administrative Burden on Bureaucratic Perception of Policies: Evidence from Election Administration." *Public Administration Review* 72 (5): 741-751. https://doi.org/10.1111/j.1540-6210.2012.02600.x. <Go to ISI>://WOS:000307936300015.

Cappa, C., D. Mont, M. Loeb, C. Misunas, J. Madans, T. Comic, and F. de Castro. 2018. "The development and testing of a module on child functioning for identifying children with disabilities on surveys. III: Field testing." *Disability and Health Journal* 11 (4): 510-518. https://doi.org/10.1016/j.dhjo.2018.06.004. <Go to ISI>://WOS:000446518000005.

Carey, G., B. Crammond, and E. Malbon. 2019. "Personalisation schemes in social care and inequality: review of the evidence and early theorising." *International Journal for*

Equity in Health 18 (1). https://doi.org/ARTN 170 10.1186/s12939-019-1075-2. <Go to ISI>://WOS:000495574400001.

Carey, G., E. Malbon, and J. Blackwell. 2021. "Administering inequality? The National Disability Insurance Scheme and administrative burdens on individuals." *Australian Journal of Public Administration* 80 (4): 854-872. https://doi.org/10.1111/1467-8500.12508. <Go to ISI>://WOS:000683593900001.

Carey, G., E. Malbon, S. Olney, and D. Reeders. 2018. "The personalisation agenda: the case of the Australian National Disability Insurance Scheme." *International Review of Sociology-Revue Internationale De Sociologie* 28 (1): 20-34. https://doi.org/10.1080/03906701.2018.1425084. <Go to ISI>://WOS:000433901900003.

Christensen, J., L. Aaroe, M. Baekgaard, P. Herd, and D. P. Moynihan. 2020. "Human Capital and Administrative Burden: The Role of Cognitive Resources in Citizen-State Interactions." *Public Administration Review* 80 (1): 127-136. https://doi.org/10.1111/puar.13134. <Go to ISI>://WOS:000505233900012.

Chudnovsky, M., and R. Peeters. 2021. "The unequal distribution of administrative burden: A framework and an illustrative case study for understanding variation in people's experience of burdens." *Social Policy & Administration* 55 (4): 527-542. https://doi.org/10.1111/spol.12639. <Go to ISI>://WOS:000556251200001.

Daigneault, P. M., and C. Macé. 2020. "Program Awareness, Administrative Burden, and Non-Take-Up of Quebec's Supplement to the Work Premium." *International Journal of Public Administration* 43 (6): 527-539. https://doi.org/10.1080/01900692.2019.1636397. <Go to ISI>://WOS:000617186400004.

Department of Prime Minister and Cabinet. 2023. *Working together to deliver the NDIS - Independent review into the National Disability Insurance Scheme: Final Report.* https://www.ndisreview.gov.au/sites/default/files/resource/download/working-together-ndis-review-final-report.pdf

Devine, A., H. Dickinson, M. Rangi, M. Huska, G. Disney, Y. Yang, J. Barney, A. Kavanagh, B. Bonyhady, K. Deane, and A. McAllister. 2022. "'Nearly gave up on it to be honest': Utilisation of individualised budgets by people with psychosocial disability within Australia's National Disability Insurance Scheme." *Social Policy & Administration* 56 (7): 1056-1073. https://doi.org/10.1111/spol.12838. <Go to ISI>://WOS:000818860000001.

Dickinson, H., G. Carey, E. Malbon, D. Gilchrist, S. Chand, A. Kavanagh, and D. Alexander. 2021. "Should We Change the Way We Think About Market Performance When It Comes to Quasi-Markets? A New Framework for Evaluating Public Service Markets." *Public Administration Review* 82 (5): 897-901.

Dickinson, H., and S. Yates. 2023. "A decade on: The achievements and challenges of the National Disability Insurance Scheme's implementation." *Australian Journal of Social Issues* 58 (3): 460-475. https://doi.org/10.1002/ajs4.277. <Go to ISI>://WOS:001023483800001.

Disney, G., Y. Yang, P. Summers, A. Devine, H. Dickinson, and A. M. Kavanagh. 2025. "Social inequalities in eligibility rates and use of the Australian National Disability Insurance Scheme, 2016-22: an administrative data analysis." *Medical Journal of Australia* 222 (3): 135-143. https://doi.org/10.5694/mja2.52594. <Go to ISI>://WOS:001422988400015.

Döring, M. 2021. "How-to Bureaucracy: A Concept of Citizens' Administrative Literacy." *Administration & Society* 53 (8): 1155-1177. https://doi.org/Artn 0095399721995460 10.1177/0095399721995460. <Go to ISI>://WOS:000628941400001.

Döring, M., and J. K. Madsen. 2022. "Mitigating Psychological Costs-The Role of Citizens' Administrative Literacy and Social Capital." *Public Administration Review* 82 (4): 671-681. https://doi.org/10.1111/puar.13472. <Go to ISI>://WOS:000754889000001.

Enders, Craig. 2010. *Applied Missing Data Analysis*. New York: Guildford Publications.

Gavidia-Payne, S. 2020. "Implementation of Australia's National Disability Insurance Scheme Experiences of Families of Young Children With Disabilities." *Infants & Young Children* 33 (3): 184-194. https://doi.org/10.1097/Iyc.0000000000000169. <Go to ISI>://WOS:000553313400004.

Gavidia-Payne, S., R. Rossell, K. Bull, and J. Forster. 2024. "The changing narrative of early childhood intervention in Australia: Service providers' perspectives on the implementation of the National Disability Insurance Scheme." *Children and Youth Services Review* 157. https://doi.org/ARTN 107375 10.1016/j.childyouth.2023.107375. <Go to ISI>://WOS:001147031700001.

Halling, A., and M. Baekgaard. 2024. "Administrative Burden in Citizen-State Interactions: A Systematic Literature Review." *Journal of Public Administration Research and Theory* 34 (2): 180-195. https://doi.org/10.1093/jopart/muad023. <Go to ISI>://WOS:001086717600001.

Hellevik, O. 2009. "Linear versus logistic regression when the dependent variable is a dichotomy." *Quality & Quantity* 43 (1): 59-74. https://doi.org/10.1007/s11135-007-9077-3. <Go to ISI>://WOS:000261576200004.

Herd, P., and D. Moynihan. 2024. "Gendered administrative burden: regulating gendered bodies, labor, and identity." *Journal of Public Administration Research and Theory*. https://doi.org/10.1093/jopart/muae021. <Go to ISI>://WOS:001345489100001.

Hu, L. T., and P. M. Bentler. 1999. "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives." *Structural Equation Modeling-a Multidisciplinary Journal* 6 (1): 1-55. https://doi.org/10.1080/10705519909540118. <Go to ISI>://WOS:000208063500001.

Loeb, M., D. Mont, C. Cappa, E. De Palma, J. Madans, and R. Crialesi. 2018. "The development and testing of a module on child functioning for identifying children with disabilities on surveys. I: Background." *Disability and Health Journal* 11 (4): 495-501. https://doi.org/10.1016/j.dhjo.2018.06.005. <Go to ISI>://WOS:000446518000003.

Malbon, E., and G. Carey. 2021. "Market stewardship of quasi-markets by street level bureaucrats: The role of local area coordinators in the Australian personalisation system." *Social Policy & Administration* 55 (1): 18-33. https://doi.org/10.1111/spol.12607. <Go to ISI>://WOS:000535855400001.

Malbon, E., M. Weier, G. Carey, and T. Writer. 2022. "How personalisation programs can exacerbate socio-economic inequities: findings from budget utilisation in the Australian National Disability Insurance Scheme." *Bmc Public Health* 22 (1). https://doi.org/ARTN 878 10.1186/s12889-022-13301-x. <Go to ISI>://WOS:000789819000002.

Masood, A., and M. A. Nisar. 2021. "Administrative Capital and Citizens' Responses to Administrative Burden." *Journal of Public Administration Research and Theory* 31 (1): 56-72. https://doi.org/10.1093/jopart/muaa031. <Go to ISI>://WOS:000651820200004.

Mood, C. 2010. "Logistic Regression: Why We Cannot Do What We Think We Can Do, and What We Can Do About It." *European Sociological Review* 26 (1): 67-82. https://doi.org/10.1093/esr/jcp006. <Go to ISI>://WOS:000274342100005.

Moynihan, D., and P. Herd. 2019. *Administrative Burden: Policymaking by Other Means*. New York: Russell Sage Foundation.

Moynihan, D., P. Herd, and H. Harvey. 2015. "Administrative Burden: Learning, Psychological, and Compliance Costs in Citizen-State Interactions." *Journal of Public Administration Research and Theory* 25 (1): 43-69. https://doi.org/10.1093/jopart/muu009. <Go to ISI>://WOS:000350241700004.

National Disability Insurance Agency. 2025. "Explore data." Accessed 07/08/2025. https://dataresearch.ndis.gov.au/explore-data.

Nisar, M. A. 2018. "Children of a Lesser God: Administrative Burden and Social Equity in Citizen-State Interactions." *Journal of Public Administration Research and Theory* 28 (1): 104-119. https://doi.org/10.1093/jopart/mux025. <Go to ISI>://WOS:000428114500007.

Russo, F., C. Brownlow, and T. Machin. 2021. "Parental Experiences of Engaging With the National Disability Insurance Scheme for Their Children: A Systematic Literature Review." *Journal of Disability Policy Studies* 32 (2): 67-75. https://doi.org/Artn 1044207320943607 10.1177/1044207320943607. <Go to ISI>://WOS:000552218600001.

Smith-Merry, J., J. Gilroy, and A. Watharow. 2023. "The NDIS at ten years: designing an equitable scheme for the next decade." *Medical Journal of Australia* 218 (7): 291-294. https://doi.org/10.5694/mja2.51899. <Go to ISI>://WOS:000962202900001.

Sobel, M. 1982. "Asymptotic confidence intervals for indirect effects in structural equation models." In *Sociological Methodology*, edited by S. Leinhardt, 290-312. Washington, DC: American Sociological Association.

Yang, Y. Z., and Y. Wang. 2025. "Capital, administrative burden, and welfare participation: Evidence from the minimum living standard scheme in China." *Public Administration Review* 85 (3): 787-809. https://doi.org/10.1111/puar.13860. <Go to ISI>://WOS:001281246800001.

Yates, S., G. Carey, E. Malbon, and J. Hargrave. 2022. "'Faceless monster, secret society': Women's experiences navigating the administrative burden of Australia's National Disability Insurance Scheme." *Health & Social Care in the Community* 30 (5): E2308-E2317. https://doi.org/10.1111/hsc.13669. <Go to ISI>://WOS:000726432400001.

APPENDIX A

Table A1: Non-continuous outcomes alternative model specifications

	Unmet needs (N = 483)		NDIS plan (N =486)	
	Linear	Poisson (marginal effect)	Linear	Logit (marginal effect)
Administrative capital				
Administrative capital – observed scale mean	-0.17*	-0.16*	0.07***	0.07***
	(0.07)	*(0.07)*	*(0.02)*	*(0.02)*
Child characteristics				
Number of functional difficulties	0.37***	0.37***	0.09***	0.09***
	(0.06)	*(0.06)*	*(0.02)*	*(0.01)*
Child age group *(vs age 2-4 years)*				
Age 5-8 years	-0.14	-0.16	-0.09	-0.10
	(0.24)	*(0.26)*	*(0.07)*	*(0.07)*
Age 9-12 years	0.07	0.00	-0.16*	-0.17*
	(0.24)	*(0.26)*	*(0.07)*	*(0.07)*
Age 13-17 years	0.19	0.11	-0.26***	-0.27***
	(0.28)	*(0.29)*	*(0.08)*	*(0.07)*
Socio-economic status				
Financial resources	-0.49***	-0.48***	0.02	0.02
	(0.08)	*(0.08)*	*(0.02)*	*(0.02)*
Parent education				
Degree (vs. no degree)	0.35*	0.37*	0.00	-0.01
	(0.16)	*(0.16)*	*(0.04)*	*(0.04)*
Disability				
Adult disability (vs no adult disability)	0.61***	0.60***	0.06	0.06
	(0.15)	*(0.15)*	*(0.04)*	*(0.04)*

Adjusted for parent age, parent sex, relationship status, and regional/remote residence.

Figure A1: Non-continuous outcomes alternative model fitted values