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# **Working Paper**

Does anti-discrimination legislation matter in low-income countries? The impact of disability legislation on the educational attainment of children with disability

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# Does anti-discrimination legislation matter in low-income countries? The impact of disability legislation on the educational attainment of children with disability

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#### Abstract

In many parts of the world, children with disabilities continue to face exclusion from education. This educational disparity is particularly pronounced in African countries, where disability legislation is often absent. In our sample, disability emerges as the strongest predictor of low educational attainment among children—more influential than severe poverty or low parental education. Despite increasing international attention to inclusive education, evidence on the impact of anti-discrimination legislation remains limited, and particularly for low-income settings. Existing literature has primarily focused on labor market outcomes in high-income countries, where the effects on employment have been mixed at best. Using individual-level data from ten African countries, we apply various difference-in-differences approaches to assess the impact of disability legislation on educational attainment. Our analysis shows that such legislation significantly increases school enrollment, attendance rates, and years of schooling. In most countries, anti-discrimination laws close at least half of the 30% disability gap in education observed in contexts lacking such protections. Furthermore, we find no adverse spillover effects on the schooling of younger, non-disabled siblings in countries that enacted the legislation. These findings highlight the transformative potential of legal protections in advancing educational equity for children with disabilities.

**Keywords:** educational attainment, school attendance, legislation, disability

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# 1 Introduction

Approximately 1 billion individuals, or 15% of the global population, live with a disability, with nearly 800 million of these individuals residing in low and middle-income countries (United Nations, 2022c). Disability, as conceptualized through the social model, is understood as an outcome of environmental and societal barriers that inhibit the full participation of individuals with various impairments (Thomas, 2004). Despite their significant proportions, persons with disabilities remain one of the most marginalized groups globally (Lamichhane, 2013). Empirical evidence consistently documents their exclusion and discrimination in the labor market (Jones', 2008; Kidd et al., 2000), education (Cramm et al., 2013; Deuchert et al., 2017), healthcare (Jones et al., 2018), and broader social spheres (Cramm et al., 2013).

In a landmark move to address these disparities, the United Nations adopted the Convention on the Rights of Persons with Disabilities (CRPD) in 2006. This treaty, noted for its rapid negotiation and the highest number of signatories on its opening day, seeks to promote and protect the fundamental rights of persons with disabilities. To date, over 164 territories have ratified or signed the Convention<sup>1</sup>, committing to uphold and defend the rights of people with disabilities<sup>2</sup>. A key focus of the CRPD is the right to education for people with disabilities, mandating member states to ensure inclusive education systems at all levels and to recognize the equal rights of children with disabilities (United Nations, 2022a).

Education is an important human capital investment (Griliches, 1997; Schultz, 1961), yielding significant wage and social returns (Dee, 2004; Psacharopoulos, 1981; Psacharopoulos and Patrinos, 2004), often surpassing returns from other investments (Harmon et al., 2003). However, children with disabilities face substantial educational disparities. Globally, one in three children with disabilities is out of school (Bines and Lei, 2011), and in low and middle-income countries (LMICs), there is a 31 percentage point gap in school attendance between children with and without disabilities (Mizunoya et al., 2018). In Africa, school enrollment for children with disabilities is alarmingly low, with only 10 percent attending school (Bines and Lei, 2011). In contrast, the World Bank (2018) in its World Development Report estimates that by 2010, gross primary school enrollment rate was above 100 percent in SSA. Addressing educational attainment gaps for persons with disabilities, thus, has the

<sup>&</sup>lt;sup>1</sup>By signing a treaty, a country or territory formal endorses it. However, treaties only become legally binding for the jurisdiction if they have ratifed it (UNICEF, n.d.). Refer to Table A.3, for a list of SSA countries that have signed or ratified the CRPD

<sup>&</sup>lt;sup>2</sup>This number (164) represents the number of territories, not countries or states, as per the United Nations that have ratified or signed the CRPD. For example, the European Union signed the Convention in 2007 (United Nations, 2023).

potential to facilitate labor market entry for a sizeable proportion of the global population—over 1 billion individuals worldwide.

Several barriers contribute to this educational attainment gap. Financial constraints often prevent parents from enrolling their children with disabilities in school (Lamichhane, 2013), and doubts about their ability to succeed academically further deter enrollment (Mizunoya et al., 2018). Additionally, the lack of assistive devices (Lamichhane, 2013) and the distance to schools pose significant challenges (Trani et al., 2012). Once enrolled, these children face further barriers that decrease their likelihood of remaining in school, including inaccessible infrastructure and a shortage of teachers trained in special needs education (Mizunoya et al., 2018). Moreover, resource limitations, such as insufficient braille materials, and social challenges, like bullying, further hinder their educational progress (Bourke and Burgman, 2010; Lindsay and McPherson, 2012; Purdue, 2009).

While global educational discourse has shifted towards improving learning outcomes (Glewwe et al., 2017; World Bank, 2018), for children with disabilities, the primary issue remains basic school attendance. Despite extensive literature on interventions aimed at increasing school attendance for the general population, there is a paucity of research focusing specifically on children with disabilities. It remains unclear to what extent interventions which have been shown to work for the non-disabled population - such as building more schools (Duflo, 2001; Foster and Rosenzweig, 1996), adult literacy campaigns (Handa, 2002), conditional cash transfers (Chaudhury and Okamura, 2012; Oosterbeek et al., 2008), or providing bicycles (Muralidharan and Prakash, 2017) - impact the enrollment and educational attainment of children with disabilities.

Studies focusing on the education of children with disabilities often examine the impact of wearable assistive devices. For example, research in China demonstrates that providing eyeglasses or hearing aids significantly improves academic performance for children with poor vision, equivalent to 0.3-0.5 additional years of schooling (Glewwe et al., 2016). Another study finds that wearing glasses improves math scores by 0.24 standard deviations (Huang and Chen, 2022). Similarly, Feng and Sass (2013) finds that special education teacher training improves math and reading achievement for children with disabilities in Florida, though it may lower achievement for their non-disabled peers.

Most studies on the legislation intervention effects focus mostly on school entry. For example, Dobkin and Ferreira (2010), explores the role of school-age entry laws on educational attainment and future labour market participation in the US while Tan (2017) examines the role of similar legislation, also in the US, on the school participation and teenage fertility of

girls. The impact of legislative interventions on educational outcomes—attendance, years of education, or learning— for persons with disability on the other hand has been relatively underexplored. De Bruin (2019) examines reforms in the US and Australia aimed at promoting inclusiveness and reducing segregation, finding that legislative reform led to a decrease in the proportion of students with disabilities not enrolled in school, suggesting a positive effect on school enrollment. However, this study is descriptive, limiting its ability to draw causal conclusions. Another empirical study investigates the effect of disability employment law on the educational participation of people with disabilities, finding no significant changes in educational participation as a response to these laws (Jolls, 2004). This study's limitation is its focus on individuals already in, or about to enter, the workforce, where barriers to (re)entry into education may be significant regardless of disability status.

A closely related study to ours by Bose and Heymann (2020) explores the role of inclusive education laws on school attendance for children with disabilities, using a Difference-in-Differences (DiD) approach to examine the effect of an inclusive education law in Uganda, finding that children with disabilities of school-going age in Uganda are more likely to attend school compared to their counterparts in Chad and Ghana, which are reported to lack inclusive education laws. Our study differs from this study in its definition of inclusive educational laws, and therefore what qualifies as a treated country in addition to examining a broader range of disabilities.

Studies on the efficacy of legislative interventions on other outcomes, such as employment and the labor market for persons with disabilities, present mixed results. A study in the United States finds that disability employment laws are associated with lower relative earnings and lower labor force participation rates for persons with disabilities but not with lower employment rates (Beegle and Stock, 2003). These findings are confirmed by Hotchkiss (2004) noting improvements in employment for some disability groups. Conversely, a study by Bell and Heitmueller (2009) on a similar law in the UK finds no impact on employment rates and possibly a worsening effect. Bambra and Pope (2007) concludes that anti-discrimination laws are not effective public policy tools for overcoming disability inequalities.

This paper contributes to the literature by examining the impact of disability legislation on school enrollment and educational attainment among children with disabilities in Sub-Saharan Africa (SSA), where the adoption of such laws is far from universal despite a higher disability prevalence<sup>3</sup>. While nearly half of the world's countries have implemented national-

<sup>&</sup>lt;sup>3</sup>Africa has a disability prevalence rate of 15.3% World Health Organization and World Bank, 2011, with sub-Saharan Africa recording the highest global prevalence for children under five (6%) and the second highest for those aged 5–17 (15.9%) UNICEF, 2021

level disability legislation, only about one-third of SSA countries have enacted such laws (See Table A1 for more details on disability prevalence across regions). We identify ten countries, five with disability legislation and five without, using data that tracks individual-level disability status over time. The selected countries' disability laws typically mandate equal rights in various sectors, including education, with provisions for integrating individuals with disabilities into mainstream education or offering special needs education. These laws also emphasize educator training and the provision of assistive devices. Crucially, they prohibit discrimination in accessing educational services, with penalties for violations and designated entities to enforce these rights.

Our analysis includes countries with and without disability legislation, focusing on those where disability data is available for at least two survey rounds. Using census data from the IPUMS, we identify 10 countries with data that elicit disability, educational attainment and other individual-level demographic variables across at least two points in time. Of these five countries have enacted a disability law between the two survey rounds (Rwanda, Uganda, Senegal, Sierra Leone and Tanzania) and five have not (Benin, Botswana, Ethiopia, Guinea and Mali). While Ethiopia has eventually enacted disability legislation, this law established after both rounds of surveys used in this analysis. We therefore treat it as a country without legislation in the context of our analysis.

We use the Difference-in-Differences (DiD) method, focusing only on children with disabilities who are fully exposed to the intervention. Children are considered fully treated if they are eligible to start primary school after the legislation is passed. The treated age range is determined by the school entry age and the timing of disability legislation, ensuring that only children fully exposed to the legislation are included. In our main estimation, our counterfactual group consists of children without disability within country of the same age range as the fully treated children. We find that in countries with disability laws, the likelihood of children with disabilities ever attending school and currently attending school significantly increases, with effect sizes ranging from 5 to 21 percentage points. In contrast, in countries without such legislation, children with disabilities are between 5 and 10 percentage points less likely to have ever attended school or be currently enrolled. We also find that disability legislation increases years of education, with significant positive effects in years of schooling in three of the five countries with legislation. In contrast, we only observe significant positive changes in years of schooling in only one of the five countries without.

In order to rule out that our findings are not artifacts of our primary estimation method, we in addition apply two alternative approaches: comparing only children with disabilities in legislating versus non-legislating countries and comparing children with disabilities to their siblings. Our results are consistent with the results of our main estimation. Using the first approach, our results show that disability legislation significantly increases the likelihood of children with disabilities ever attending school (by 5 percentage points) and currently being enrolled (by 8 percentage points) in legislating countries. However, there is no significant effect on total years of schooling. Using the second approach, we also find significant positive effects on school attendance and years of schooling, albeit with some variations by country. These results support the results of our main strategy which indicate that, generally, children with disabilities in countries with disability legislation are more likely to report significant improvements in educational outcomes compared to those without.

Given these results, we then investigate whether gains in educational attainment for children with disabilities impose penalties for their non-disabled siblings, particularly younger ones. We find positive spillovers in school attendance in two treated countries, Rwanda and Uganda, where younger siblings of children with disabilities are significantly more likely to have ever attended school (by 10 percentage points in Rwanda and 2-3 percentage points in Uganda. However, in countries without disability legislation, only Botswana reports a significant increase in the likelihood of younger siblings attending school. Importantly, no treated countries show significant adverse spillovers on the school attendance of younger siblings, in comparison to one country without legislation, indicating that the presence of a disability law does not negatively impact their schooling. However, there appears to be a negative effect in years of schooling among younger siblings in treated countries when compared to those in countries without legislation. In four of the five countries with legislation, younger siblings of children with disabilities have significantly fewer years of education than the younger siblings of children without. In contrast, in the countries without legislation, this difference is only significant in two.

Lastly, we explore heterogeneous effects of disability legislation across disability domains and age cohorts. Age cohort heterogeneous analysis allow us to explore the shorter versus longer term effects of the legislation and thus whether legislation effects persist over time while disability domain analysis allows us to explore whether legislation might have different effects for different disability domains.

Across countries, legislation appears to have a stronger impact on school enrollment for children with auditory disabilities than on those with visual disabilities. In treated countries, we observe significant effects on enrollment of children with auditory disabilities in four countries, with increases ranging from 2 to 15 percentage points while for visual disabil-

ities, significant effects are detected in only one country (Tanzania, 14 percentage points). Conversely, in countries without legislation, there are no significant positive changes in enrollment gaps over time for either domain. When examining years of schooling, however, the patterns differ. Children with visual disabilities show significant positive effects in two countries, similar to children with auditory disabilities. In the auditory domain, one country reports a significant negative effect, underscoring the complex interplay between legislation and different dimensions of educational outcomes across disability domains.

Within-country, we observe additional heterogeneous treatment In Rwanda, where we do not find any significant effects of legislation on the aggregated disability measure, our disaggregated analysis by disability domain shows differential outcomes. While for children with visual disabilities we do not find any significant effects, for those with auditory disabilities, legislation significantly improves all three educational outcomes: ever enrolling, current enrollment, and years of schooling. Moreover, the effect sizes for auditory disabilities in Rwanda are the largest among all countries sampled, suggesting that the benefits of legislation may be concentrated in specific disability domains rather than uniformly distributed. Interestingly, in treated countries, the effects of legislation on educational outcomes typically manifest within either the visual or auditory disability domain but rarely across both simultaneously. This pattern underscores the domain-specific nature of legislative impacts, possibly reflecting differences in how laws address barriers for various types of disabilities.

Our findings on age-cohort effects are country specific. In Sierra Leone and Uganda, the positive effects identified in the main specification are largely driven by younger cohorts—those entering school several years post-legislation—, with effect sizes of 26 and 2 percentage points, respectively, compared to older cohorts—those entering school immediately post-legislation— (21 and 5 percentage points). In Tanzania, however, older cohorts are 10 percentage points less likely to have ever attended school, while no cohort-specific effects are observed in Senegal. Regarding years of schooling, older cohorts experience significantly higher gains in Tanzania and Uganda, with increases of 32% and 40%, respectively. Conversely, younger cohorts in these countries face notable reductions in schooling duration (54% in Tanzania and 19% in Uganda). These results suggest that the mechanisms driving the legislation's impact on school attendance may vary by context.

The remainder of the paper is structured as follows: Section 2 provides an overview of the intervention under investigation, the data utilized, the empirical strategy employed, and a detailed description of the disability measures used in this study. Section 3 delves into the results, including analyses of heterogeneous effects by disability domain and cohort, as well

as sibling spillovers. Finally, Section 4 summarizes the key findings of the study.

# 2 Methods and data

# 2.1 Treatment - disability legislation

The primary focus of this paper is to examine how disability legislation influences school enrollment and educational attainment among children with disabilities in SSA. While exploring the impact under conditions of universal adoption of national-level disability legislation would primarily have academic implications, the reality reveals a starkly different scenario with far from universal adoption. Globally, just under half of countries or territories have implemented national-level disability legislation. Approximately one-third of countries in SSA have enacted some form of national disability legislation (see Appendix A1).

We identify ten countries in SSA with and without disability legislation to examine its impact on educational outcomes for children with disabilities. Specifically, Rwanda, Uganda, Zambia, Senegal, Sierra Leone, Tanzania and Ethiopia have implemented disability laws, while Benin, Botswana, Guinea, and Mali do not have such legislation in place. These countries were selected primarily based on data availability, as we require datasets that capture individual-level disability status at least at two points in time. This approach allows us to assess the impact of disability legislation by comparing outcomes before and after its implementation within each country. A more detailed discussion of country selection and the data used for each country can be found in the data section below (Section 2.2). In Uganda, two pieces of legislation were enacted during our study period of interest. A 2003 Act established a national council responsible for promoting the implementation and equalization of opportunities for persons with disability enlisting its composition, functions, and administration. In 2006, another Act was established specifically enlisting the rights of persons with disability across different aspects of life, such as education. It is also important to note a specific case regarding Ethiopia: although Ethiopia enacted disability employment legislation in 2008, our analysis treats it as a country without disability legislation. This classification is based on our use of data points from 1994 and 2007 (as shown in Table 1), both of which precede the enactment of the legislation.

Despite variations in specific provisions, disability legislation in the five countries examined in this study uniformly addresses fundamental rights across several domains, including health, transportation, communication, and notably, education. These laws mandate governments to develop policies and allocate resources aimed at enhancing the education and training opportunities for individuals with disabilities. Key provisions include promoting the integration of persons with disabilities into mainstream educational institutions, or alternatively, providing special needs education in inclusive or specialized schools. Furthermore, the legislation emphasizes the training of educators specializing in special needs and the provision of assistive devices to facilitate examination processes. These laws are discussed in more detail in Appendix A.1.

An essential aspect of these laws is their prohibition of discrimination against persons with disabilities in accessing educational services. They outline penalties for violations and designate specific entities responsible for implementing and enforcing disability rights within educational contexts. By comprehensively addressing these facets, the legislation aims to foster an inclusive educational environment that supports equal access and opportunities for individuals with disabilities across diverse educational settings in SSA.

# 2.2 Data

Our study examines how disability legislation impacts the school enrollment and attainment of children with disability in SSA. Specifically, we aim to determine whether codifying disability rights affects the likelihood of children with a disability ever enrolling in school, their current enrollment status, or their overall years of schooling. To do this, we utilize the DiD method, with children with disability in a country as the treated group and those without disabilities (within the same country) as the counterfactual group. A DiD estimation model requires individual-level disability and enrollment and attainment data observed for each household member, collected at a minimum of two points in time, both before and after the intervention. Given the national coverage of relevant laws, we scout various data sources to find nationally representative survey data from throughout SSA that depict both nationwide coverage and at least two instances (data points) of disability and education variables. We utilize census data, which typically collects individual-level variables for all household members across all households within a country. These data are accessible through IPUMS-International (Minnesota Population Center, 2020) database. Census data is generally collected every ten years, with IPUMS-International providing access to a 10% random sample of households from each participating country..

In Table 1, we show a comprehensive overview of the countries we select, along with information about the data sources and the year of disability legislation. These countries represent all the countries from SSA that observe disability and school enrollment and attainment for at least two survey rounds from these two data sources for any specific SSA country. We also

provide information on the official school entry age and the ages of the children who enter our estimation. They also capture a range of relevant individual-level reported variables, such as disability and education indicators, as well as demographic factors such as age, gender, and wealth, over at least two distinct time points.

Table 1: Study countries, their disability law years, survey data used and inclusion criteria

| Country      | Data<br>source | $egin{array}{c} \mathbf{Time}_0 \ \mathbf{data} \end{array}$ | Law<br>year | $egin{array}{c} \mathbf{Time}_1 \ \mathbf{data} \end{array}$ | Sch.<br>entry<br>age | Ages<br>in-<br>clude | Disability domains included                           |
|--------------|----------------|--|-------------|--|----------------------|----------------------|---|
| Rwanda       | Census         | 2002   | 2007        | 2012   | 7                    | 7-12                 | Blind, deaf, mute, mental                             |
| Uganda       | Census         | 2002   | 2003/06     | 2014   | 6                    | 6-17                 | Blind, deaf, mental                                   |
| Senegal      | Census         | 2002   | 2010        | 2013   | 6*                   | 7-10                 | Blind, deaf, mute                                     |
| Sierra Leone | Census         | 2004   | 2011        | 2015   | 6                    | 6-10                 | Blind, deaf, mute, mental, psychological              |
| Tanzania     | Census         | 2002   | 2010        | 2012   | 7                    | 7-9                  | Blind, deaf   |
| Benin        | Census         | 2002   |             | 2013   | 6                    | 6-11                 | Blind, deaf, mute, mental                             |
| Botswana     | Census         | 2001   |             | 2011   | 6                    | 6-11                 | Blind, deaf, mute, extremities, mental, psychological |
| Ethiopia     | Census         | 1994   |             | 2007   | 7                    | 7-12                 | Blind, deaf, mute, extremities                        |
| Guinea       | Census         | 1996   |             | 2014   | 7                    | 7-12                 | Blind, deaf, mute, extremities                        |
| Mali         | Census         | 1998   |             | 2009   | 7                    | 7-12                 | Blind, deaf   |

**Notes**: We use census data provided by the IPUMS-International (Minnesota Population Center, 2020) database. In Uganda, which enacts two disability laws between time<sub>0</sub> and time<sub>1</sub>, we use 2003 as law reference year. \*Senegal lowered school entry age from 7 to 6 years between time<sub>0</sub> and time<sub>1</sub>. Data on school entry age is sourced from the World Bank (2022). Data on disability legislation is sourced from the United Nations (2022b). A disability domain is only included in our analysis if observed in both rounds of surveys.

Our analysis primarily relies on census data. The columns 'Time<sub>0</sub>' and 'Time<sub>1</sub>' represent the year of the pre-and post-intervention datasets, respectively, for the countries with disability legislation. As mentioned previously, five countries without disability legislation, including Benin, Botswana, Ethiopia, Guinea and Mali are included as an additional robustness measure and to rule out the possibility that our estimate for the treated countries captures any spurious effects. These countries were also selected primarily due to data availability, consistent with the selection criteria used for countries with legislation.

We define the treated age ranges based on school entry age and the timing of disability legislation across sampled countries, focusing exclusively on children fully exposed to the legislation. Specifically, this includes only those children who, based on their age, would be expected to start school after the legislation was enacted. For each country with disability legislation, we determine the minimum age for school entry as the starting point for inclusion. We then calculate the fully treated age range by subtracting the year of legislation from the dataset year post-intervention (time<sub>1</sub>). For example, in Rwanda, where disability legislation was enacted in 2007 and our time<sub>1</sub> dataset year is 2012, we derive a 5-year treated age range.

Given the school entry age of 7 years, we include Rwandan children aged 7 to 12 years. This methodology is consistently applied across all countries in the study. In Uganda, where two laws were enacted between time<sub>0</sub> and time<sub>1</sub>, we use the legislation year of 2003 as the reference point.

Conversely, for countries lacking disability legislation, we calculate an age range equivalent to the mean age ranges observed in the five treated countries (typically 5 years), applying this range to the school entry age. It is important to note that Senegal lowered its school entry age between time<sub>0</sub> and time<sub>1</sub> (World Bank, 2022), prompting us to use the new school entry age as the foundational age range for these countries. This methodology ensures consistency in defining treated age ranges across countries with varying legislative timelines, providing a standardized approach to evaluating the impact of disability legislation on educational outcomes.

Our dataset from Guinea, a country without legislation, has one limitation. It does not observe the wealth variable, which is important as a control. In Tables A22 and A23, we show that omitting the wealth index has the effect of over- or under-estimating the point estimates for our sampled countries. However, we do not believe this poses a major threat to the validity of our findings, as Guinea is included as a comparator rather than as a counterfactual.<sup>4</sup>

# 2.3 Empirical strategy

#### 2.3.1 School enrollment and attainment for children with disability

In this analysis, only children who are fully treated (full exposure) enter the estimation. Children are considered fully treated if they are eligible to start primary school after the law has been passed in their country of residence. We take the official primary school entry age for a specific country as the proxy for eligibility to start school in that country. Age eligibility is discussed in more detail under the data section (Subsection 2.2).

We use the following estimation equation for the effect of disability legislation on education participation of children with disability:

$$Y_{it} = \alpha_0 + \alpha_1(D_{it} \times A_{it}) + \alpha_2 D_{it} + \alpha_3 A_{it} + \alpha_4 X_{it} + \eta_i + \epsilon_{it}$$

$$\tag{1}$$

<sup>&</sup>lt;sup>4</sup>In our analysis, the population we study is children of school-going age with a disability. In our main DiD estimation, the counterfactual group is children without disabilities of the same age within the country. More details can be found in the empirical strategy (Subsection 2.3).

Where Y is the dependent variable, in this case, the outcomes (a) ever enrolling in school, (b) currently attending school, and (c) years of schooling for children with disability.  $\alpha_1$  is the coefficient of interest, the DiD estimate of the effect of the disability law on the enrollment and attainment of children with disability in a country enacting a disability law. D, shorthand for 'Disabled,' is a binary variable for whether a child has a disability or not, and A, shorthand for 'After,' represents a time pre-and post-intervention. X represents a set of covariates, which include the age and gender of the child, a dummy of being in the bottom 40% wealth, number of siblings in the household and the years of education of the household head. We select these covariates as they are known predictors of enrollment and attainment (Glick and Sahn, 2000). We include district fixed effects  $\eta_i$  to control for unobserved heterogeneity across districts that could bias the estimates

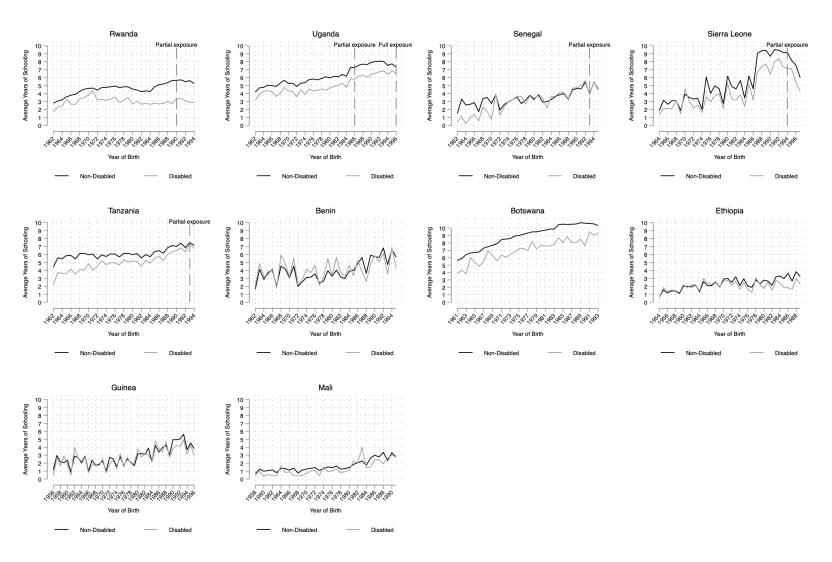
#### 2.3.2 Parallel pre-trends

A key criterion for deploying the DiD estimation is the parallel pre-trends assumption. The DiD method assumes pre-intervention parallel trends between treated and non-treated units (Rambachan and Roth, 2023). As such, our study relies on the assumption of parallel trends in enrollment and attainment between children with disability and children without disabilities within country, not across countries. However, given data limitations- we do not have data that contains both disability and school enrollment or attainment for at least three periods pre-legislation- we cannot directly assess pre-trends. To mitigate this challenge, we implement two strategies. First, we include 'comparator' countries with datasets that observe disability and education at multiple points in time but lack disability legislation.

Second, we attempt to construct a dataset from the survey data that would allow us to establish, even if imperfectly, parallel pre-trends. For each country, we combine the two survey rounds (time<sub>0</sub> and time<sub>1</sub> datasets) for individuals 18-40 years old<sup>5</sup>. Using this combined dataset, we calculate the average years of education for both disabled and non-disabled groups by year of birth cohort. The primary limitation of this approach is that it relies on the disability status of each individual at the time of the survey, which may overestimate the average years of education for persons with disabilities at the time of schooling, as it includes individuals who may have acquired a disability post-schooling. In Figure 1, we plot these averages to check the plausibility of our parallel pre-trends assumption. Despite the limitations of this strategy, our pre-trend lines for most countries seem to support our

<sup>&</sup>lt;sup>5</sup>The rationale for using a 40-year upper bound age, is that across all our sample countries, disability prevalence for the disabilities analyzed in this paper is always below 10%, thus reducing the likelihood that the disability status observed at time  $t_i$  for each individual is different from their disability status at their school-going age.

Figure 1: Pre-trends in years of education



Notes: The figure plots the pre-trends in average years of schooling for disabled and non-disabled adult population by year of birth cohort. Graphs with a vertical line indicating vertical exposure are countries enacting disability legislation. The vertical line indicating partial exposure represents the year of birth for people during their school-going age—that is, 17 years old or younger, at the time of the enactment of the legislation for countries with a disability law.

assumption that disabled and non-disabled populations' schooling trends tend to be similar, despite the prevailing disability gaps.

#### 2.3.3 Comparing only children with disabilities across countries

Second, we run a difference in difference estimation comparing only children with disabilities in legislating countries to those with disabilities in non-legislating countries. We drop all children without disability, combine all of the individual country datasets into one dataset and estimate the following equation:

$$Y = \gamma_0 + \gamma_1 (L_{it} \times A_{it}) + \gamma_2 A_{it} + \gamma_3 X_{it} + \upsilon_i + \epsilon_{it}$$
 (2)

Where Y is our schooling outcome variable,  $\gamma_1$  is the coefficient of interest, L a dummy variable denoting treatment status and A, a dummy representing a time pre-and post-intervention. X represents a set of covariates similar to those in Equation (1). Instead of the treatment status main effect (L) in our DiD estimation, we include country-fixed effects,  $v_i$  to control for unobserved heterogeneity across countries.

To capture only the full treatment effects, we maintain a consistent age range across our sampled countries. Based on the datasets from countries with legislation, Tanzania has the smallest age range for children with disabilities who enter school and are fully exposed to the legislation (see Table 1). Consequently, in this estimation, we focus on children with disabilities aged 7 to 9, using the age ranges defined for Tanzania, across all sampled countries.

#### 2.3.4 Comparing outcomes for children with disabilities against their siblings

As an additional analysis to check whether our estimation strategy influences our results, we also estimate the effect of legislation by comparing children with disabilities exclusively with their siblings. We use the following estimation equation:

$$Y_{it} = \beta_0 + \beta_1 (D_{it} \times A_{it}) + \beta_2 D_{it} + \beta_3 A_{it} + \zeta_i + \epsilon_{it}$$

$$\tag{3}$$

Where Y represents schooling outcomes variables and  $\beta_1$  is the coefficient of interest, the DiD estimate of the effect of the disability law on the enrollment and attainment of children with disability. Similar to Equation 3, D represents disability status, and A, a time pre-and post-legislation. We do not include any covariates but include household fixed effects,  $\zeta_i$ ,

to account for unobserved heterogeneity across households, thereby controlling for potential biases in our estimates while allowing for variability within households.

#### 2.3.5 Spillover effects to younger siblings of children with disability

Furthermore, we test whether inducing enrollment and attainment of children with a disability has any spillovers to their younger siblings. Answering this question has important policy implications. Sawada and Lokshin (2009) show that when resource constraints are binding, household education investment decisions for one child affect the decisions for other children in the same household, while Eriksen et al. (2023) show that having a sibling with disability reduces school performance. In the context of this paper, these imply negative spillovers. On the other hand, Nicoletti and Rabe (2019) find positive school achievement spillovers to younger siblings with Aguirre and Matta (2021) and Altmejd et al. (2021) finding that these effects are driven by the siblings benefiting from attending school together. We therefore explore the implications of school attendance for children with disability on their siblings, particularly younger ones where resource constraints are likely to be more binding.

We use the following estimation equation to measure any spillovers on younger siblings:

$$Y_{it} = \delta_0 + \delta_1(S_{it} \times A_{it}) + \delta_2 S_{it} + \delta_3 A_{it} + \delta_4 X_{it} + \eta_i + \epsilon_{it}$$

$$\tag{4}$$

Where Y is the outcome variable,  $\delta_1$  is the coefficient of interest, S a dummy variable denoting sibling status and A, a dummy representing a time pre-and post-intervention. We also include a set of controls, X, similar to those in Equation (1) and country fixed effects  $\eta_i$ .

# 2.4 Disability measurement

Using the data described above, we construct a binary measure of disability for each individual. Since the observed disability domains vary not only across countries but also across survey years within each country, we derive the binary disability measure using disability domains that are observed across both time<sub>0</sub> (before legislation) and time<sub>1</sub> (after legislation) for each country. In Table 1, we provide an overview of the disability domains observed in each country across both survey rounds. For instance, in Rwanda, disability domains such as blindness, deafness, muteness, and mental disability are observed in both the 2002 and 2012 census data. In Senegal, blindness, deafness, and muteness are observed in both the 2002 and 2013 census data. By restricting our analysis to disability domains observed

consistently across time<sub>0</sub> and time<sub>1</sub> within each country, we ensure the reliability and comparability of our findings regarding the impact of disability legislation on educational outcomes for individuals with disabilities in SSA.

In addition, we compute the disability prevalence by disability domain for each country and survey round in our sample (Table A3). Visual and hearing disabilities are consistently reported across countries and survey rounds. We observe significant variation in the overall (observed) disability proportions across countries and years. For instance, the average disability rate in Uganda is approximately 4% across the two years, while in Mali it is only 0.2%. However, due to substantial variation in the observed disability domains across time and country, direct comparisons of disability prevalence between the sampled countries are not feasible.

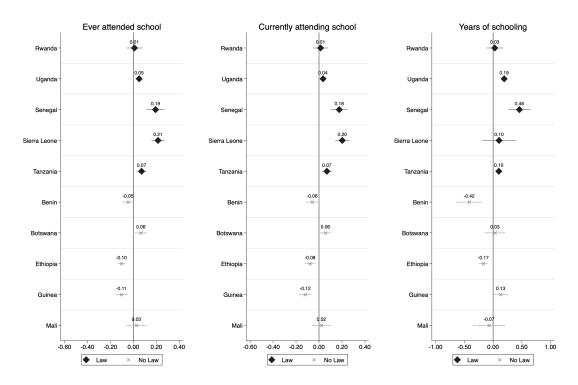
# 3 Results

# 3.1 Disability legislation on the educational participation of children with disability

# 3.1.1 DiD comparing children with disabilities to those without

In Figure 2, we present the results of our main specification, Equation (1). The change in the likelihood of ever attending school is significant and positive in four of the five countries enacting disability law (Sierra Leone, Senegal, Tanzania and Uganda), but only significant and positive in one (Botswana) and significant and negative in three (Benin, Ethiopia and Guinea) of the five countries without legislation. In the four treated countries with a significant positive effect, we find effect sizes ranging from 21 and 19 percentage points (pp) in Sierra Leone and Senegal respectively, to 7pp and 5pp in Tanzania and Uganda respectively, indicating that when legislation has an effect on school enrollment, it increases the likelihood of children with disabilities by between 5 and 21 percentage points. On the other hand, in three control group countries, we find that children with disabilities are between 5pp and 10pp less likely to have ever attended school between time<sub>0</sub> and time<sub>1</sub>. This further strengthens our findings on the effect of legislation on ever attending school, by showing what may have been expected of the school enrollment status of children with disabilities in treated countries in the absence of legislation.

Figure 2: Disability legislation on school participation of children with disability



Notes: This figure plots within-country DiD point estimate and standard errors for disability domains observed across time<sub>0</sub> and time<sub>1</sub> surveys (within-country). More information about the disability domains observed across both surveys for each country can be found on Table 1. Diamond points represent countries where a disability law was enacted between time<sub>0</sub> and time<sub>1</sub> while X points represent countries that did not have a disability law. Point estimates represent within-country regressions. More details on the DiD regression and covariates can be seen in Table A4, A5 and A6 in the Appendices.

We find similar results on current school attendance for children with disabilities, post-legislation, in four out of the five treated countries. Specifically, we observe significant positive effects in Sierra Leone, Senegal, Tanzania, and Uganda of 20pp, 16pp, 7pp, and 3pp, respectively, the same countries for whom we find a significant effect on ever attending school, although in this case with marginally smaller effect sizes. The difference in effect sizes when comparing the legislative effects on ever attending school and currently attending school for these countries ranges between 1-2pp. On current school enrollment for countries without legislation, we also see a similar trend to our previous findings focusing on initial school registration. Over time, children with disabilities are significantly less likely to be currently enrolled in school in three of the comparator countries, Guinea, Ethiopia and Benin (12pp, 8pp and 6pp respectively), between time<sub>0</sub> and time<sub>1</sub> with only Botswana reporting a significant positive change during the period.

In addition to examining the effects of legislation on ever-attending school and current school

attendance, we also measure its impact on years of schooling. Looking at years of schooling allows us to assess the longer-term impact of disability legislation on educational participation. This approach is crucial because it is plausible that learners with a disability who may have ever enrolled or are currently attending school might do so irregularly, affecting their total years of schooling. For instance, students may enter school, drop out, and then re-enter, which even though has positive implications for school attendance impacts their cumulative years of education. We find significant legislative effects on years of schooling in three of the five treated countries. Disability legislation increases years of education by 0.5 years in Senegal, 0.2 years in Uganda, and 0.1 years in Tanzania, representing changes of 78%, 8%, and 20%, respectively, given their baseline years of education. Notably, despite finding the largest legislative effects on both initial school enrollment and current school attendance for children with disabilities in Sierra Leone, we do not observe any significant legislative effects on their years of education. One possible interpretation of this finding would be that while legislation may induce school attendance for children with disabilities in Sierra Leone, weak enforcement or other constraints may hinder their ability to remain in school, thereby affecting their total years of education.

We also find a significant disability gap in years of schooling in all of our ten sampled countries, filling an important gap in the literature. Most of the existing evidence on the disability gap in school attainment focuses on ever attending school or current school attendance but hardly on years of schooling. The disability gap in years of schooling is significant and large (Table A6), with our back-of-the-envelope calculations showing that, on average, children with disabilities in these countries have 32% fewer years of schooling than their peers without a disability at time<sub>0</sub> (the range is between 15% in Uganda and 54% in Senegal).

#### 3.1.2 DiD with only children with disabilities across countries

Next, we employ an alternative empirical strategy, as outlined in Equation (2), to ensure that our results are not artifacts of our primary approach. We find positive effects of legislation on school attendance when comparing children with disabilities in legislating countries to those in non-legislating countries. Specifically, legislation increases the likelihood of ever attending school by 5 percentage points and current school enrollment by 8 percentage points for children with disabilities in legislating countries. However, there is no significant impact on the total years of schooling.

These findings underscore the positive effect of legislation on school attendance. The absence of a significant effect on years of schooling could be due to the young age of the sample, as these children are likely just beginning their educational journey, making it challenging to

detect differences in accumulated schooling years at this stage.

Table 2: Only children with disabilities across countries with and without disabilities

|                     | Ever attended | Currently Enrolled | Years of schooling |
|---------------------|---------------|--------------------|--------------------|
| Law x After         | 0.050***      | 0.077***           | -0.024             |
|                     | (0.019)       | (0.018)            | (0.043)            |
| After               | 0.095***      | 0.063***           | 0.134***           |
|                     | (0.017)       | (0.016)            | (0.039)            |
| Age                 | 0.048***      | 0.045***           | 0.351***           |
|                     | (0.003)       | (0.003)            | (0.006)            |
| Male                | 0.002         | -0.001             | -0.050***          |
|                     | (0.004)       | (0.005)            | (0.010)            |
| No of siblings 5-17 | -0.002        | -0.002             | 0.001              |
|                     | (0.001)       | (0.001)            | (0.003)            |
| HH head educ.       | 0.012***      | 0.013***           | 0.033***           |
|                     | (0.001)       | (0.001)            | (0.002)            |
| Poorest 40%         | -0.082***     | -0.080***          | -0.173***          |
|                     | (0.005)       | (0.005)            | (0.011)            |
| Urban               | 0.070***      | 0.071***           | 0.168***           |
|                     | (0.006)       | (0.007)            | (0.016)            |
| Constant            | 0.186***      | 0.186***           | -2.091***          |
|                     | (0.024)       | (0.024)            | (0.054)            |
| N                   | 31,102        | 31,106             | 31,253             |
| Adjusted R-squared  | 0.301         | 0.292              | 0.206              |

**Notes**: Table shows DiD regression estimates of the effect of disability law on years of schooling of children with disability. The counter-factual group in this estimation is children with disabilities in countries without legislation, following estimation Equation (2). Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Nevertheless, additional context is needed when analysing the findings in Table 2. Firstly, disability legislation is enacted at different times across our sampled countries, making the counterfactual comparison less comparable. This temporal variation can introduce biases because the timing of legislation implementation may coincide with broader socio-economic or educational changes that independently influence educational outcomes. Secondly, the assumption of parallel pre-trends—essential for the validity of DiD analysis—is less plausible when comparing across countries. Countries differ systematically in socio-economic, educational, and cultural contexts, which may confound the outcomes between disabled individuals in treated versus non-treated countries.

In contrast, our main estimation strategy compares the outcomes of children with disabilities to those without disabilities within the same countries. This approach leverages the fact that both groups are exposed to the same macroeconomic and socio-economic conditions over time, thereby providing a more robust attribution of any observed effects to the policy change itself. This methodological choice helps mitigate the influence of country-specific differences and provides a clearer understanding of how disability legislation impacts educational outcomes within a consistent context.

# 3.1.3 Comparing children with disabilities only with their siblings

We also compare school participation for children with disabilities against their siblings, using the estimation in Equation (3), to explore intra-household effects of disability legislation. We find somewhat consistent results to those reported in the main results section of this paper (Figure 3). On ever attending school and current school enrollment, we find significant positive effects in three of the four treated countries where we also found significant effects in our primary specification, with the exception being Tanzania. For Sierra Leone, Senegal and Uganda, we find effect sizes that are within 0-3pp margin of those reported in our main results. On years of schooling, we find significant effects in four treated countries, Senegal, Uganda, Sierra Leone and Rwanda, compared to three in our main results<sup>6</sup>. However, consistent with our main findings, we find that in general treated countries are more likely to report significant positive changes in legislation compared to non-treated countries.

 $<sup>^6</sup>$ The effect size in Rwanda is only significant at the 90% confidence level.

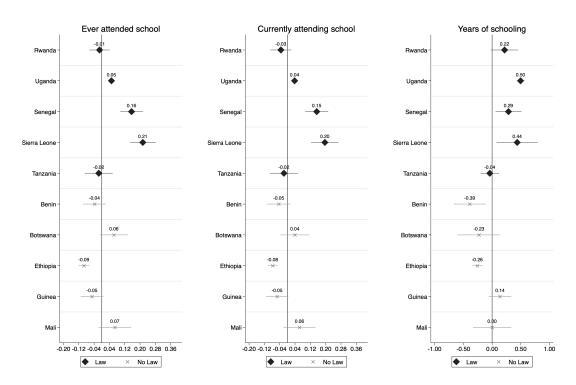


Figure 3: Legislation on schooling (Disabled versus siblings only)

Notes: This figure plots within-country DiD point estimate and standard errors for disability domains observed across  $time_0$  and  $time_1$  surveys (within-country). More information about the disability domains observed across both surveys for each country can be found on Table 1. Diamond points represent countries where a disability law was enacted between  $time_0$  and  $time_1$  while X points represent countries that did not have a disability law. Point estimates represent within-country regressions. More details on the DiD regression and covariates can be seen in Tables A7, A8 and A9 in the Appendices.

# 3.2 Spillover effects to younger siblings of children with disability

Overall, our findings show positive effects of disability legislation on school with these effects robust to the estimation strategy. The next question we address, therefore, is whether disability legislation has any spillover effects on siblings of children with disability. As suggested in the literature earlier (Subsection 2.3.5), the existing evidence on the effect of having a sibling with disability on one's educational attainment is mixed. Some studies suggest that children may benefit from the educational attainment of their siblings through positive spillovers (aguirre'walking'2021;ltmejd'o'2021), while others posit that the school participation of a child with a disability may influence siblings educational outcomes which may be more sensitive to the perceived returns and costs associated with educating or having a sibling with special needs (sawada'obstacles'2009;eriksen'educational'2023). Here, we test whether inducing schooling participation for children with disabilities has any spillovers on

their younger siblings using the specification in Equation (4). For this analysis, we exclude children with disabilities from the dataset. We present our findings in Figure 4 (and Table A11).

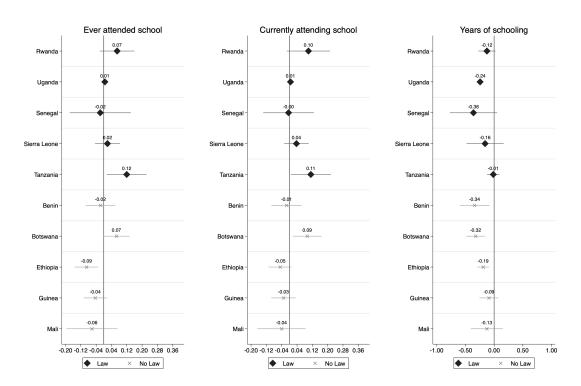


Figure 4: Spillover effects on the school participation of younger siblings

Notes: The figure plots the point estimate and standard errors for each country's DiD estimate. Outcome variables (a) ever attended school and (b) currently attending school are binary while (c) years of education is continuous. Diamond points represent countries where a disability law was enacted between time<sub>0</sub> and time<sub>1</sub> while X points represent countries that did not have a disability law. Point estimates represent within-country regressions. More details on the DiD regression and covariates can be seen in Tables A10, A11 and A12 in the Appendices.

In our treated countries, younger siblings of children with disability are significantly more likely to have ever attended school compared to other children of school going age in households without disabled children in two countries, Rwanda and Uganda, by 10 and 2 pp, respectively. In contrast, in countries without legislation, younger siblings are only significantly more likely to attend school in one country, Botswana. Noteworthy, Botswana is also the only county without legislation for whom the likelihood of ever attending school for children with disability was significantly higher between time<sub>0</sub> and time<sub>1</sub>. More importantly, none of our treated countries show significant adverse effects on the school participation of younger siblings. We observe similar results on current school attendance of the siblings of children with liabilities in treated countries. In Uganda, they are significantly more likely to

be attending school following legislation than they did before, while in the other five, there is no significant difference in current school attendance.

On the years of schooling of siblings, we observe that, on average, the decline in schooling years among younger siblings of children with disabilities in treated countries is smaller in magnitude compared to that of children in control countries. Only one country with disability legislation, namely Uganda, reports a significant gap in years of education of the younger siblings of children with disability<sup>7</sup> in contrast to three countries lacking such legislation - Ethiopia, Botswana, and Benin - which also exhibit significant but even larger gaps on average. Importantly, in Uganda, our previous findings (Subsection 3.1.1) indicate significant and large positive effects of legislation for children with disability across all three enrollment and attainment dimensions studied. While one may interpret this as a substitution effect- disability induces school attainment for children with disability at the expense of their younger siblings- we do not see a similar effect in two other countries, Senegal and Tanzania, that also report significant and positive effects of legislation for children with disability across all three enrollment and attainment dimensions.

Our main finding on the spillover effects of disability legislation on the school participation of siblings is, overall very encouraging. Across all of the school participation outcomes that we investigate, younger siblings of children with disabilities in countries enacting legislation, on average, report better outcomes compared to younger siblings in countries without legislation. At a minimum, the legislation does not seem to have any negative spillover effects on the school participation of siblings of children with disability, particularly when compared to children in countries without legislation.

# 3.3 Disability domain heterogeneous effects

## 3.3.1 Visual and auditory disabilities

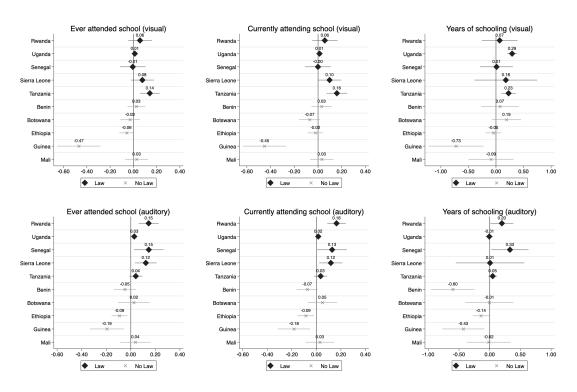
We also explore heterogeneity in treatment effects by disability domains. Since our dataset includes only two disability domains—visual and auditory disabilities (see Table 1)—our heterogeneity analysis is limited to these two categories. We discuss both cross-country and within-country heterogeneity.

Across countries, our findings (Figure 5) indicate that legislation has a more pronounced effect on the likelihood of ever enrolling in school for children with auditory disabilities compared to those with visual disabilities. In the visual disability domain, significant legislative

<sup>&</sup>lt;sup>7</sup>The effect size in Rwanda is negative and is significant at the 90% confidence level

effects are observed in only one of the five countries with relevant laws (Tanzania, 14pp), while in the hearing disability domain, there is a significant positive in four countries ranging from 2pp to 15pp. On the contrary, none of the countries lacking relevant legislation report a significant positive difference between time<sub>0</sub> and time<sub>1</sub> in either domain. We also observe similar effects on the effect of legislation on current school attendance, where legislation seems to have a greater effect on children with auditory disabilities when compared to those with visual disabilities. Within non-treated countries, we find either no significant change in the disability gap in current school enrollment at time<sub>1</sub> or a widening of the gap across both disability domains. However, when looking at years of schooling, we find significant effects for children with visual disabilities in two countries, similar to that of children with auditory disabilities. However, we also see significant negative effects in one other within the auditory disability domain.

Figure 5: Disability domain heterogeneous effects- visual and auditory disabilities



Notes: The figure plots the point estimate and standard errors for each country's DiD estimate. Outcome variables (a) ever attended school and (b) currently attending school are binary while (c) years of education is continuous. Diamond points represent countries where a disability law was enacted between time<sub>0</sub> and time<sub>1</sub> while X points represent countries that did not have a disability law. Point estimates represent within-country regressions. More details on the DiD regression and covariates can be seen in Tables A13, A14 and A15 in the Appendices.

<sup>&</sup>lt;sup>8</sup>The effect size in Rwanda is only significant at the 90% confidence level

Within-country, some additional themes emerge. Although in our main specification (Subsection 3.1.1) we do not find any effects of legislation in Rwanda on any of our three outcomes, our disaggregated disability-domain analysis reveals heterogeneous results. We find similar results when disaggregating by the visual disability domain. However, within the auditory domain, we see significant effects on all three outcomes- ever-enrolling, current enrollment and years of schooling. In fact, within the hearing domain, the effect size is largest of all our sampled countries. Additionally, in our treated countries, we also find that within schooling outcome categories, legislation typically impacts school outcomes in either the hearing or visual disability domain, but not both simultaneously.

In Botswana, a country without a national disability law, our earlier main specification analysis showed that children with disabilities were significantly more likely to have ever enrolled in, or currently be attending school at time<sub>1</sub>, with changes comparable to those observed in Tanzania and Uganda, both of which enacted legislation. However, when focusing specifically on auditory and visual disabilities, we find no significant changes over time in either domain, implying that changes in school enrollment for children with disabilities in the country are driven by domains other than visual and hearing disability domains and that for these two domains, the probability of school enrolment does not change between time<sub>0</sub> and time<sub>1</sub>.

#### 3.3.2 Mental disabilities

We also separately estimate the effect of legislation on mental disability. While mental disability is self-reported in the census surveys and may convey different meanings to different respondents, it is reasonable to assume that the term generally encompasses individuals with mental illnesses, learning disabilities, intellectual and developmental disabilities, or even conditions such as dementia (Wong et al., 2000). Thus, understanding legislative effects for persons with mental disability in an educational setting is particularly important. We show our results in Figure 6.

We find positive legislative effects in the likelihood of ever attending school for children with mental disability in two of the three countries with legislation that report mental disability status (Uganda and Sierra Leone, 24pp and 34pp, respectively). In Uganda, specifically, we find significant positive effects across all three outcome measures- ever enrolling, current school attendance and years of schooling. In Sierra Leone, we see significant effects on ever attending school, but not current school enrollment or years of schooling while in Rwanda, we do not find effects of legislation on any of our measures for children with mental disability. In countries without legislation, there are significant positive changes in school enrollment

and attendance but not in years of schooling, and no significant changes across any of our measures in Benin.

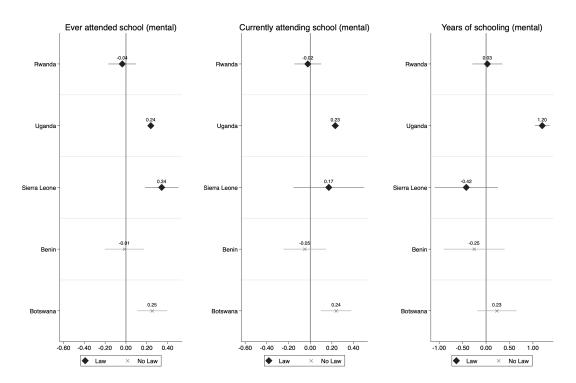


Figure 6: Disability domain heterogeneous effects- mental disability

Notes: The figure plots the point estimate and standard errors for each country's DiD estimate. Outcome variables (a) ever attended school and (b) currently attending school are binary while (c) years of education is continuous. Diamond points (in blue) represent countries where a disability law was enacted between time<sub>0</sub> and time<sub>1</sub> while square points (in red) represent countries that did not have a disability law between the two time points. More details on the DiD regression and covariates can be seen in Tables A13, A14 and A15 in the Appendices.

# 3.4 Time since treatment exposure (age-cohort) effects

We extend our heterogenous effects analysis to also explore heterogeneity in treatment effects by time since treatment exposure, to assess whether the effect of legislation on school attendance persists over time. Specifically, we investigate whether younger cohorts— those starting school several years after the legislation is passed— are equally likely to be affected by the legislation compared to older cohorts- those who started school immediately following the legislation (Figure 7). We find heterogeneity in treatment effects across cohorts on the likelihood of ever attending school. In Sierra Leone and Uganda, the treatment effects we find in our main specification on ever attending school are mostly driven by younger cohorts (26pp and 2pp, respectively) - those entering school at least three years after the law is

passed- and not by older ones (main specification effect sizes are 21pp and 5pp, respectively for the two countries). In Tanzania, older cohorts are 10pp less likely to ever have attended school while in Senegal, we do not find any cohort-specific effects. These findings suggest that the mechanisms through which legislation may affect school enrollment for children with disabilities may be context-specific.

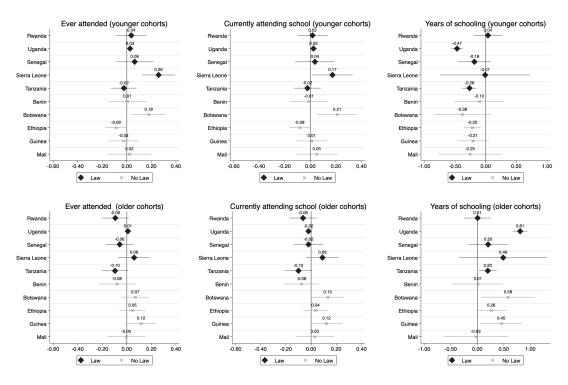


Figure 7: Age-Cohort heterogeneous effects

Notes: The figure plots the point estimate and standard errors for each country's DiD estimate. Outcome variables (a) ever attended school and (b) currently attending school are binary while (c) years of education is continuous. Younger cohorts are those starting school several years after the legislation is passed while older cohorts are those starting school immediately following the legislation. Diamond points represent countries where a disability law was enacted between time<sub>0</sub> and time<sub>1</sub> while X points represent countries that did not have a disability law. Point estimates represent within-country regressions. More details on the DiD regression and covariates can be seen in Tables A16, A17 and ?? in the Appendices.

Our results on the heterogeneity in treatment by cohort sizes shows that legislation significantly influences years of schooling for older cohorts—those commencing education immediately after the enactment—more than for younger cohorts. Notably, in two of these countries, Tanzania and Uganda, we observe substantial positive effects for cohorts entering school immediately post-legislation, with respective increases of 32% and 40% in years of schooling. Conversely, in these two countries, children with disabilities entering school several years after the enactment experience a considerable reduction in schooling duration, with respective

decreases of 54% and 19% which may suggest a widening disparity in years of schooling for children with disabilities in these two countries relative to baseline measurements.

These results also highlight some nuances in school participation that should be considered when exploring the relationship between interventions and schooling outcomes for disadvantaged populations such as those with disabilities. Our findings show that legislative interventions may impact current school enrollment and years of schooling differently. Since current school attendance only captures participation at a specific point in time, it may not capture irregular attendance patterns. In contrast, years of schooling, as a measure, provides a cumulative measure of school participation over time, making it a more robust indicator for capturing the educational engagement of children with disabilities. Thus, years of schooling may offer a more comprehensive understanding of the long-term effects of legislative interventions on such populations.

### 3.5 Robustness checks

# 3.5.1 Legislation on elderly persons- over 80 years old- with disability.

As a robustness check, we conduct a similar estimation for older individuals with disabilities - those over 80 years old. We assume that, given their age, these older individuals are generally not expected to enter school, and therefore, legislation is not expected to influence school participation for this group. We present our findings in Figure 8. As demonstrated, our analysis reveals no significant differences in school participation among elderly individuals with disabilities across treatment groups, except in terms of whether they have ever attended school. These observed differences in school attendance are anticipated, as they reflect historical variations in educational access during their formative years rather than at present, which is the aspect most likely influenced by recent legislation.

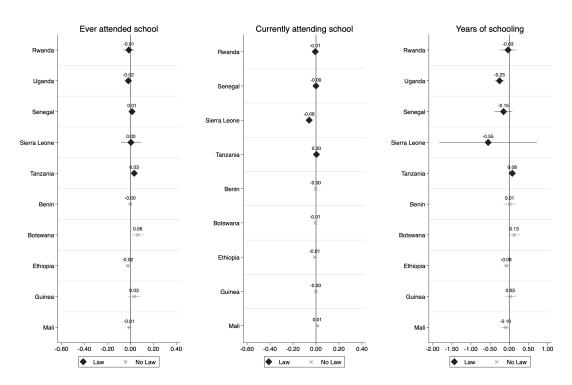


Figure 8: Legislation on elderly persons with disability (over 80 years old)

Notes: The figure plots the point estimate and standard errors for each country's DiD estimate. Outcome variables (a) ever attended school and (b) currently attending school are binary while (c) years of education is continuous. Diamond points (in blue) represent countries where a disability law was enacted between time<sub>0</sub> and time<sub>1</sub> while square points (in red) represent countries that did not have a disability law between the two time points. More details on the DiD regression and covariates can be seen in Tables A19, A20 and A21 in the Appendices.

# 4 Conclusion

In this paper, we look at the effect of a policy intervention, specifically disability legislation, on school enrollment and attendance of children with disability in SSA. Studying the effect of legislation in SSA is important first because it represents the region with one of the highest proportions of persons with disability and, secondly, because it represents the region with one of the lowest proportions of countries with any form of disability legislation, thus having a high potential for impact. This paper is one of the first to provide any empirical evidence of the impact of disability legislation on the schooling outcomes of children with disability. We also extend the analysis to the siblings of disabled children to measure any potential spillovers.

We identify ten countries from SSA with at least two data rounds with individual-level disability and education variables, five with disability legislation and five without. We then use the difference-in-difference method to estimate education outcomes, specifically school

enrollment and years of education, for children with disability following the enactment of the laws. We run our estimation within-country, comparing the education outcomes for children with disability in a country to those without.

We confirm the findings of previous studies of a disability gap in enrollment and attainment—disability reduces the likelihood of ever enrolling in school, current school enrollment and years of schooling. The effect of disability on education is larger than any other individual or household characteristics of the child. However, we also find that disability legislation bridges this gap— our results show that disability legislation has a positive effect on the likelihood of school attendance across all the dimensions studied: ever enrolling in school; current enrollment status, and; years of schooling. Conversely, in countries without legislation, we in general do not find any significant changes in school participation of children with disability meaning that disparities in school enrollment, attendance and years of schooling persist or even widen when legislation is missing.

We also find heterogeneous treatment effects across disability domains, cohorts and outcomes. For instance, we observe that in countries such as Sierra Leone, legislation impacts initial school entry but not the total years of education, which carries significant policy implications. We also find that interventions aimed at improving outcomes for persons with disabilities affect different disability domains differently. Specifically, we find that legislation is more likely to induce positive effects on enrollment for children with hearing disabilities than for those with visual disabilities when considering current school attendance. However, this difference is less pronounced when examining the impact on years of schooling.

Moreover, our study provides empirical support for the notion that promoting school enrollment for children with disabilities in regions with high levels of poverty, such as SSA, does not adversely affect the educational participation of their siblings. This is particularly significant for siblings in households where educational resources are most likely to be constrained, such as younger ones.

The findings of this study carry substantial policy implications. Disability presents considerable hurdles to the educational engagement of children affected, underscoring the potential advantages of policy interventions aimed at alleviating these barriers and enhancing educational achievements within this vulnerable demographic. Moreover, our research offers new empirical insights suggesting that enhancing the educational opportunities for children with disabilities does not lead to adverse trade-offs for their siblings. These insights can offer valuable guidance for policymakers grappling with issues surrounding educational rights and legislation about individuals with disabilities.

# References

- Aguirre, J., & Matta, J. (2021). Walking in your footsteps: Sibling spillovers in higher education choices. *Economics of Education Review*, 80, 102062. https://doi.org/10.1016/j.econedurev.2020.102062
- Altmejd, A., Barrios-Fernández, A., Drlje, M., Goodman, J., Hurwitz, M., Kovac, D., Mulhern, C., Neilson, C., & Smith, J. (2021). O brother, where start thou? sibling spillovers on college and major choice in four countries\*. *The Quarterly Journal of Economics*, 136(3), 1831–1886. https://doi.org/10.1093/qje/qjab006
- Bambra, C., & Pope, D. (2007). What are the effects of anti-discriminatory legislation on socioeconomic inequalities in the employment consequences of ill health and disability? [Publisher: BMJ Publishing Group Ltd Section: Evidence based public health policy and practice]. *Journal of Epidemiology & Community Health*, 61(5), 421–426. https://doi.org/10.1136/jech.2006.052662
- Beegle, K., & Stock, W. A. (2003). The labor market effects of disability discrimination laws. The Journal of Human Resources, 38(4), 806. https://doi.org/10.2307/1558781
- Bell, D., & Heitmueller, A. (2009). The disability discrimination act in the UK: Helping or hindering employment among the disabled? *Journal of Health Economics*, 28(2), 465–480. https://doi.org/10.1016/j.jhealeco.2008.10.006
- Bines, H., & Lei, P. (2011). Disability and education: The longest road to inclusion. *International Journal of Educational Development*, 31(5), 419–424. https://doi.org/10.1016/j.ijedudev.2011.04.009
- Bose, B., & Heymann, J. (2020). Do inclusive education laws improve primary schooling among children with disabilities? *International Journal of Educational Development*, 77, 102208. https://doi.org/10.1016/j.ijedudev.2020.102208
- Bourke, S., & Burgman, I. (2010). Coping with bullying in australian schools: How children with disabilities experience support from friends, parents and teachers. *Disability & Society*, 25(3), 359–371. https://doi.org/10.1080/09687591003701264
- Chaudhury, N., & Okamura, Y. (2012). Conditional cash transfers and school enrollment: Impact of the conditional cash transfer program in the philippines, 20.
- Cramm, J. M., Nieboer, A. P., Finkenflügel, H., & Lorenzo, T. (2013). Disabled youth in south africa: Barriers to education [Publisher: De Gruyter]. *International Journal on Disability and Human Development*, 12(1), 31–35. https://doi.org/10.1515/ijdhd-2012-0122

- De Bruin, K. (2019). The impact of inclusive education reforms on students with disability:
  An international comparison. *International Journal of Inclusive Education*, 23(7),
  811–826. https://doi.org/10.1080/13603116.2019.1623327
- Dee, T. S. (2004). Are there civic returns to education? *Journal of Public Economics*, 88(9), 1697–1720. https://doi.org/10.1016/j.jpubeco.2003.11.002
- Deuchert, E., Kauer, L., Liebert, H., & Wuppermann, C. (2017). Disability discrimination in higher education: Analyzing the quality of counseling services. *Education Economics*, 25(6), 543–553. https://doi.org/10.1080/09645292.2017.1325838
- Dobkin, C., & Ferreira, F. (2010). Do school entry laws affect educational attainment and labor market outcomes? *Economics of Education Review*, 29(1), 40–54. https://doi.org/10.1016/j.econedurev.2009.04.003
- Duflo, E. (2001). Schooling and labor market consequences of school construction in indonesia: Evidence from an unusual policy experiment. *American Economic Review*, 91(4), 795–813. https://doi.org/10.1257/aer.91.4.795
- Eriksen, T. L. M., Gaulke, A. P., Skipper, N., Svensson, J., & Thingholm, P. (2023). Educational consequences of a sibling's disability: Evidence from type 1 diabetes. *Economics of Education Review*, 94, 102407. https://doi.org/10.1016/j.econedurev.2023.102407
- Feng, L., & Sass, T. R. (2013). What makes special-education teachers special? teacher training and achievement of students with disabilities. *Economics of Education Review*, 36, 122–134. https://doi.org/10.1016/j.econedurev.2013.06.006
- Foster, A. D., & Rosenzweig, M. R. (1996). Technical change and human-capital returns and investments: Evidence from the green revolution [Publisher: American Economic Association]. *The American Economic Review*, 86(4), 931–953. Retrieved August 23, 2022, from https://www.jstor.org/stable/2118312
- Glewwe, P., Krutikova, S., & Rolleston, C. (2017). Do schools reinforce or reduce learning gaps between advantaged and disadvantaged students? evidence from vietnam and peru [Publisher: The University of Chicago Press]. *Economic Development and Cultural Change*, 65(4), 699–739. https://doi.org/10.1086/691993
- Glewwe, P., Park, A., & Zhao, M. (2016). A better vision for development: Eyeglasses and academic performance in rural primary schools in china. *Journal of Development Economics*, 122, 170–182. https://doi.org/10.1016/j.jdeveco.2016.05.007
- Glick, P., & Sahn, D. E. (2000). Schooling of girls and boys in a west african country: The effects of parental education, income, and household structure. *Economics of Education Review*, 19(1), 63–87. https://doi.org/10.1016/S0272-7757(99)00029-1
- Government of Rwanda Ministry of Justice. (2007). Codes and laws of rwanda law no 01/2007 of 20/01/2007 relating to protection of disabled people in general, 5. https:

- //www.un.org/development/desa/disabilities/wp-content/uploads/sites/15/2019/11/Rwanda\_Law-Relating-to-Protection-of-Disabled-Persons-in-General.pdf
- Government of Sierra Leone. (2011). The persons with disability act, 2011. (3). http://www.sierra-leone.org/Laws/2011-03.pdf
- Government of Uganda. (2003). National council for disability act 2003. Retrieved August 30, 2022, from https://www.un.org/development/desa/disabilities/wp-content/uploads/sites/15/2019/11/Uganda\_National-Council-for-Disability-Act-2003.pdf
- Government of Uganda. (2006). Persons with disability act 2006, 19. https://www.un.org/development/desa/disabilities/wp-content/uploads/sites/15/2019/11/Uganda\_Persons-with-Disabilities-Act.pdf
- Griliches, Z. (1997). Education, human capital, and growth: A personal perspective [Publisher: The University of Chicago Press]. *Journal of Labor Economics*, 15(1), S330–S344. https://doi.org/10.1086/209865
- Handa, S. (2002). Raising primary school enrolment in developing countries: The relative importance of supply and demand. *Journal of Development Economics*, 69(1), 103–128. https://doi.org/10.1016/S0304-3878(02)00055-X
- Harmon, C., Oosterbeek, H., & Walker, I. (2003). The returns to education: Microeconomics.

  Journal of Economic Surveys, 17(2), 115–156. https://doi.org/10.1111/1467-6419.00191
- Hotchkiss, J. L. (2004). A closer look at the employment impact of the americans with disabilities act. *Journal of Human Resources*, *XXXIX*(4), 887–911. https://doi.org/10.3368/jhr.XXXIX.4.887
- Huang, J., & Chen, Q. (2022). Should myopic students wear eyeglasses?—a regression-discontinuity analysis. *Applied Economics Letters*, 1–7. https://doi.org/10.1080/13504851.2022.2094322
- Jolls, C. (2004). Identifying the effects of the americans with disabilities act using statelaw variation: Preliminary evidence on educational participation effects. *American Economic Review*, 94(2), 447–453. https://doi.org/10.1257/0002828041301867
- Jones', M. K. (2008). Disability and the labour market: A review of the empirical evidence. *Journal of Economic Studies*, 35(5), 405–424. https://doi.org/10.1108/01443580810903554
- Jones, M., Morris, J., & Deruyter, F. (2018). Mobile healthcare and people with disabilities: Current state and future needs. *International Journal of Environmental Research and Public Health*, 15(3), 515. https://doi.org/10.3390/ijerph15030515

- Kidd, M. P., Sloane, P. J., & Ferko, I. (2000). Disability and the labour market: An analysis of british males. *Journal of Health Economics*, 19(6), 961–981. https://doi.org/10.1016/S0167-6296(00)00043-6
- Lamichhane, K. (2013). Disability and barriers to education: Evidence from nepal [Number: 4 Publisher: Stockholm University Press]. Scandinavian Journal of Disability Research, 15(4), 311–324. https://doi.org/10.1080/15017419.2012.703969
- Lindsay, S., & McPherson, A. C. (2012). Experiences of social exclusion and bullying at school among children and youth with cerebral palsy [Publisher: Taylor & Francis \_eprint: https://doi.org/10.3109/09638288.2011.587086]. *Disability and Rehabilitation*, 34(2), 101–109. https://doi.org/10.3109/09638288.2011.587086
- Minnesota Population Center. (2020). Integrated public use microdata series, international: Version 7.3. https://doi.org/10.18128/D020.V7.3
- Mizunoya, S., Mitra, S., & Yamasaki, I. (2018). Disability and school attendance in 15 low-and middle-income countries. World Development, 104, 388–403. https://doi.org/10.1016/j.worlddev.2017.12.001
- Muralidharan, K., & Prakash, N. (2017). Cycling to school: Increasing secondary school enrollment for girls in india. American Economic Journal: Applied Economics, 9(3), 321–350. https://doi.org/10.1257/app.20160004
- Nicoletti, C., & Rabe, B. (2019). Sibling spillover effects in school achievement [\_eprint: https://onlinelibrary.wiley.com/doi/pdf/10.1002/jae.2674]. Journal of Applied Econometrics, 34(4), 482–501. https://doi.org/10.1002/jae.2674
- Oosterbeek, H., Ponce, J., & Schady, N. (2008, June 1). The impact of cash transfers on school enrollment: Evidence from ecuador. Retrieved August 25, 2022, from https://papers.ssrn.com/abstract=1149578
- Psacharopoulos, G. (1981). Returns to education: An updated international comparison. Comparative Education, 17(3), 321–341. https://doi.org/10.1080/0305006810170308
- Psacharopoulos, G., & Patrinos, H. A. (2004). Returns to investment in education: A further update.  $Education\ Economics,\ 12(2),\ 111-134.\ https://doi.org/10.1080/0964529042000239140$
- Purdue, K. (2009). Barriers to and facilitators of inclusion for children with disabilities in early childhood education [Publisher: SAGE Publications]. *Contemporary Issues in Early Childhood*, 10(2), 133–143. https://doi.org/10.2304/ciec.2009.10.2.133
- Rambachan, A., & Roth, J. (2023). A more credible approach to parallel trends. *Review of Economic Studies*, 90(5), 2555–2591. https://doi.org/10.1093/restud/rdad018

- Sawada, Y., & Lokshin, M. (2009). Obstacles to school progression in rural pakistan: An analysis of gender and sibling rivalry using field survey data. *Journal of Development Economics*, 88(2), 335–347. https://doi.org/10.1016/j.jdeveco.2008.03.002
- Schultz, T. W. (1961). Investment in human capital [Publisher: American Economic Association]. *The American Economic Review*, 51(1), 1–17. Retrieved October 28, 2022, from https://www.jstor.org/stable/1818907
- Tan, P. L. (2017). The impact of school entry laws on female education and teenage fertility. *Journal of Population Economics*, 30(2), 503-536. https://doi.org/10.1007/s00148-016-0609-9
- Tanzania persons with disabilities act 2010. (2010). Retrieved December 27, 2023, from https://www.un.org/development/desa/disabilities/wp-content/uploads/sites/15/2019/11/Tanzania\_Persons-with-Disabilities-Act-2010.pdf
- Thomas, C. (2004). How is disability understood? an examination of sociological approaches [Publisher: Routledge \_eprint: https://doi.org/10.1080/0968759042000252506]. Disability & Society, 19(6), 569-583. https://doi.org/10.1080/0968759042000252506
- Trani, J.-F., Bakhshi, P., & Nandipati, A. (2012). 'delivering' education; maintaining inequality. the case of children with disabilities in afghanistan [Publisher: Routledge \_eprint: https://doi.org/10.1080/0305764X.2012.706259]. Cambridge Journal of Education, 42(3), 345–365. https://doi.org/10.1080/0305764X.2012.706259
- UNICEF. (2021). Seen, counted, included: Using data to shed light on the well-being of children with disabilities.
- UNICEF. (n.d.). How the convention on the rights of the child works joining, implementing and monitoring the world's most widely ratified human rights treaty. Retrieved August 29, 2024, from https://www.unicef.org/tajikistan/how-convention-rights-child-works
- United Nations. (2022a). Convention on the rights of persons with disabilities (CRPD). Retrieved August 18, 2022, from https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html
- United Nations. (2022b). Disability laws and acts by country/area. Retrieved August 18, 2022, from https://www.un.org/development/desa/disabilities/disability-laws-and-acts-by-country-area.html
- United Nations. (2022c). Factsheet on persons with disabilities. Retrieved August 18, 2022, from https://www.un.org/development/desa/disabilities/resources/factsheet-on-persons-with-disabilities.html
- United Nations. (2023). United nations treaty collection: 15. convention on the rights of persons with disabilities. Retrieved December 15, 2023, from https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg\_no=IV-15&chapter=4&clang=\_en

- Wong, J. G., Clare, I. C. H., Holland, A. J., Watson, P. C., & Gunn, M. (2000). The capacity of people with a 'mental disability' to make a health care decision. *Psychological Medicine*, 30(2), 295–306. https://doi.org/10.1017/S0033291700001768
- World Bank. (2018). World development report 2018: Learning to realize education's promise. https://doi.org/10.1596/978-1-4648-1096-1
- World Bank. (2022). World bank open data: Primary school starting age (years) sub-saharan africa [World bank open data]. Retrieved May 2, 2023, from https://data.worldbank.org/indicator/SE.PRM.AGES?locations=ZG
- World Health Organization. (2023). WHO MiNDbank loi d'orientation sociale no.2010-15 du 6 juillet 2010 (social orientation law no.2010-15 of july 6, 2010). Retrieved December 28, 2023, from https://extranet.who.int/mindbank/item/2384
- World Health Organization & World Bank. (2011). World report on disability 2011 [Place: Geneva Publisher: World Health Organization Section: Summary also available in Braille]. Retrieved September 26, 2022, from https://apps.who.int/iris/handle/10665/44575

### A Appendix

#### A.1 Description of the disability laws in our study countries

# A.1.1 Uganda's Persons with Disability Act and National Council for Disability Act

Uganda enacted two disability-focused laws, the National Council for Disability Act in 2003 and the Persons with Disability Act in 2006. The Act of 2003 established a national council responsible for promoting the implementation and equalization of opportunities for persons with disability, monitoring the impact of disability-focused policies and programs, and advocacy- both for service delivery for persons with disability and for the enactment and review of new and existing laws for the protection of persons with disability. The act also enlists this council's composition, functions, and administration (Government of Uganda, 2003). A link to the Act can be found here.

The Act of 2006, on the other hand, enacts the rights of persons with disability across different aspects of life, such as education and health, employment, accessibility, access to goods, services, and facilities, and other social rights. Part 2 specifically addresses the rights of persons with disability to quality education. It mandates the government to promote the educational development of persons with disability through the encouragement of inclusive education; design of policies to promote special needs education, particularly girls and children in rural areas; establish special schools and units where inclusive education is not possible and; training and deployment of special needs teachers. It also mandates government to enforce structural and other adaptions necessary for disabled learners, including learning and instructional materials; provision of assistive devices during examinations and allowing additional time during exams for children with disability and; commits the government to spending not less than 10 percent of its education expenditure on the education of persons with disability. Furthermore, it prohibits the discrimination of persons with disability from educational services on the grounds of their disability (Government of Uganda, 2006). The Act is accessible here.

#### A.1.2 Rwanda's Law Relating to the Protection of Disabled People in General

In 2007, Rwanda promulgated legislation concerning the general protection of disabled people. This law documents explicitly the rights of disabled people to education, health, transport and communication, employment, culture, entertainment, and sports. Chapter 2 of the legislation focuses on the rights of persons with disability to appropriate education. It

requires government and other education centers to facilitate integration into regular schools for persons with disability. Where integration is not practical in respect of the nature of the disability, it obligates government or education centers to facilitate them to study in special schools, which are required to have qualified and trained teachers and appropriate equipment for their disability. In addition, it provides the right to a special exam for persons with disability who cannot sit the regular exam due to their disability. Overall, it mandates the ministry in charge of education to create policies relevant to the education of persons with disability. Importantly, it meets the heaviest penalty of all the penalties listed in the Criminal Code for any person who exercises any form of discrimination or violence against a person with a disability (Government of Rwanda - Ministry of Justice, 2007). The Act can be found here.

#### A.1.3 Tanzania Persons with Disability Act, 2010

In 2010, Tanzania enacted legislation protecting the rights of persons with disability. The legislation provides for among others the integration of persons with disability in society to allow independent living, and participation in political and public life, provides a framework for the provision of social support, the registration of persons with disability into a national disability register, and stipulates the rights of persons with disability to education, health-care, rehabilitation, and employment. The legislation also established a National Advisory Council, led by a commissioner, that would be responsible for implementing the provisions of the Act, and for recommending review of existing laws and policies to facilitate compliance with the Act. The Act also enlists penalties for violations of the act by any persons or entities ("Tanzania Persons with Disabilities Act 2010", 2010).

Specifically, on education, the Act provides that persons with disability regardless of age or gender shall have the same rights to education and training in inclusive settings, similar to other citizens. children with disability also have the right to admission to school, whether public or private and where they are entitled to disability-related support services such as relevant special needs teachers. It specifies that except for situations where special communication is needed, all children with disability will attend regular public or private school. The Act also provides for a disability fund which among others is to be used to finance education and vocational training for persons with disability ("Tanzania Persons with Disabilities Act 2010", 2010). Accessible here.

#### A.1.4 Senegal's social oriental law of 2010

The Social oriental law of 2010 in Senegal relates to the promotion and protection of the rights of persons with disability. The law defines, who a person with disability is, and guarantees the rights of these persons in addition to protecting them from discrimination based on disability. In Chapter 3, the Act enlists the rights of persons with disability to education, professional training, and employment. It specifies that children with disability have the right to receive free education in normal environments and in establishments closest to their homes. Where the severity of the disability disadvantages a child from attending ordinary schools, it mandates the government to place them in a specialized establishment. It also established a Commission whose responsibilities included defining the terms of admission to schools of children with disability, and the conditions for taking educational exams, all of which were considered binding to ordinary schools and special education institutions. In general, it provided guidance on access to schooling and education for all children with disability (World Health Organization, 2023). The legislation is accessible on this link, also in French.

#### A.1.5 Sierra Leone's Persons with Disability Act, 2011

The law regulating the rights of persons with disability in Sierra Leone was enacted in 2011. Similar to the laws in Tanzania and Zambia it also establishes a national commission for persons with disability, an entity that is responsible for implementation of the Act. It also provides for the rights of persons with disability to education, medical services, sports and recreation, the prohibition of discrimination in employment, the right to a barrier-free environment and, access to public transport. It also creates a national fund for persons with disability, enlists relief from duties and provides tax incentives. Furthermore, it enlists offences and penalties for concealment of persons with disability, for causing disability to others and general penalties (Government of Sierra Leone, 2011).

On education specifically, it guarantees the rights of persons with disability to free education, requiring schools to make structural modifications that enable their integration and to provide facilities that support learning for children with disability. In addition, it offers protection from discrimination in education entities based on their disability and encourages schools to introduce braille and sign language. Furthermore, it mandates that students enrolled in public education institutions studying special education courses are entitled to government grants and scholarships (Government of Sierra Leone, 2011). The full legislation is archived here.

### A.2 Disability prevalence

Table A1: Disability prevalence, by regions

|                                 | Has legi | slation (%) | Disa | bility by age | (%)  |
|---------------------------------|----------|-------------|------|---------------|------|
| Region                          | 2022     | Pre- 2007   | 0-4  | 5-17          | 0-17 |
| East Asia and the Pacific       | 41.7     | 8.3         | 3.5  | 9.5           | 7.8  |
| Europe and Central Asia         | 63.9     | 31.1        | 2.7  | 6.5           | 5.5  |
| Latin America and the Caribbean | 44.2     | 11.5        | 3.8  | 12.6          | 10.2 |
| Middle East and North Africa    | 57.1     | 38.1        | 4.5  | 16.9          | 13.1 |
| North America                   | 40.0     | 20.0        | 4.4  | 12            | 9.9  |
| South Asia                      | 75.0     | 37.5        | 3.7  | 13            | 10.5 |
| Sub-Saharan Africa              | 35.8     | 11.3        | 6    | 15.9          | 12.7 |
| Global                          | 49.0     | 0.19        | 4.3  | 12.5          | 10.1 |

**Notes**: Table shows the prevalence of disability across various regions of the world. Estimates are derived from UNICEF (2021). Pre-2007 estimates shown, to show the change in disability legislation status for each region following the Convention on the Rights of Persons with Disabilities. Regions and their respective countries are in accordance with UNICEF classifications.

### A.3 Disability legislation by country in sub-Saharan Africa

Table A2: Disability legislation in sub-Saharan Africa

| Country                        | Disabil<br>Law | ity Law year | Ratified<br>CRPD | Ratified year | Signed<br>CRPD | Signed<br>year |
|--------------------------------|----------------|--------------|------------------|---------------|----------------|----------------|
| Angola                         | Yes            | 2012         | Yes              | 2014          | No             |                |
| Benin                          | No             |              | Yes              | 2012          | Yes            | 2008           |
| Botswana                       | No             |              | Yes              | 2021          | No             |                |
| Burkina Faso                   | Yes            | 2010         | Yes              | 2009          | Yes            | 2007           |
| Burundi                        | No             |              | Yes              | 2014          | Yes            | 2007           |
| Cape Verde                     | No             |              | Yes              | 2011          | Yes            | 2007           |
| Cameroon                       | Yes            | 2010         | Yes              | 2023          | Yes            | 2008           |
| Central African Republic       | No             |              | Yes              | 2016          | Yes            | 2007           |
| Chad                           | Yes            | 2007         | Yes              | 2019          | Yes            | 2012           |
| Comoros                        | No             |              | Yes              | 2016          | Yes            | 2007           |
| Congo                          | No             |              | Yes              | 2014          | Yes            | 2007           |
| Congo, Democratic Republic the | e of No        |              | Yes              | 2015          | No             |                |
| Cote d'Ivoire                  | No             |              | Yes              | 2014          | Yes            | 2007           |
| Djibouti                       | No             |              | Yes              | 2012          | No             |                |
| Equatorial Guinea              | No             |              | Yes              | 2022          | No             |                |
| Eritrea                        | No             |              | No               |               | No             |                |
| Eswatini                       | No             |              | Yes              | 2012          | Yes            | 2007           |
| Ethiopia                       | Yes            | 2008         | Yes              | 2010          | Yes            | 2007           |
| Gabon                          | Yes            | 1996         | Yes              | 2007          | Yes            | 2007           |
| Gambia                         | No             |              | Yes              | 2015          | No             |                |
| Ghana                          | Yes            | 2006         | Yes              | 2012          | Yes            | 2007           |
| Guinea                         | No             |              | Yes              | 2008          | Yes            | 2007           |
| Guinea-Bissau                  | No             |              | Yes              | 2014          | Yes            | 2013           |
| Kenya                          | Yes            | 2003         | Yes              | 2008          | Yes            | 2007           |
| Lesotho                        | No             |              | Yes              | 2008          | No             |                |
| Liberia                        | No             |              | Yes              | 2012          | Yes            | 2007           |
| Madagascar                     | No             |              | Yes              | 2015          | Yes            | 2007           |

| Country                      | Disability<br>Law | Law year   | Ratified CRPD | Ratified year | Signed<br>CRPD | Signed<br>year |
|------------------------------|-------------------|------------|---------------|---------------|----------------|----------------|
| Malawi                       | Yes               | 2012       | Yes           | 2009          | Yes            | 2007           |
| Mali                         | No                |            | Yes           | 2008          | Yes            | 2007           |
| Mauritania                   | No                |            | Yes           | 2012          | No             |                |
| Mauritius                    | Yes               |            | Yes           | 2010          | Yes            | 2007           |
| Mozambique                   | No                |            | Yes           | 2012          | Yes            | 2007           |
| Namibia                      | No                |            | Yes           | 2007          | Yes            | 2007           |
| Niger                        | Yes               | 1993, 2010 | Yes           | 2008          | Yes            | 2007           |
| Nigeria                      | Yes               | 2018       | Yes           | 2010          | Yes            | 2007           |
| Rwanda                       | Yes               | 2007       | Yes           | 2008          | No             |                |
| Runion                       | No                |            | No            |               | No             |                |
| Senegal                      | Yes               | 2010       | Yes           | 2010          | Yes            | 2007           |
| Seychelles                   | No                |            | Yes           | 2009          | Yes            | 2007           |
| Sierra Leone                 | Yes               | 2011       | Yes           | 2010          | Yes            | 2007           |
| Somalia                      | No                |            | Yes           | 2019          | Yes            | 2018           |
| South Africa                 | Yes               | 1998, 2002 | Yes           | 2007          | Yes            | 2007           |
| South Sudan                  | No                |            | No            |               | No             |                |
| Tanzania, United Republic of | Yes               |            | Yes           | 2009          | Yes            | 2007           |
| Togo                         | Yes               | 2004       | Yes           | 2011          | Yes            | 2008           |
| Uganda                       | Yes               | 2003, 2006 | Yes           | 2008          | Yes            | 2007           |
| Zambia                       | Yes               | 2012       | Yes           | 2010          | Yes            | 2008           |
| Zimbabwe                     | No                |            | Yes           | 2013          | No             |                |

**Notes**: Table documents the disability legislation status for each sub-Saharan territory. It also presents whether the territory has signed or ratified the Convention on the Rights of Persons with Disabilities (CRPD). Data on disability legislation is from the United Nations (2022b).

Table A3: Disability percentages by type, year and country for 5-17 year old children.

|                   | RV  | VA  | U   | GA  | SE  | EN  | SI  | ĹE  | $T_{2}^{2}$ | ZA  | BI  | ΞN  | В   | VA  | E.  | ГН  | G:  | IN  | Μ   | LI  |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                   | 02  | 12  | 02  | 14  | 02  | 13  | 04  | 15  | 02          | 12  | 02  | 13  | 01  | 11  | 94  | 07  | 96  | 14  | 98  | 09  |
| Blind             | 0.1 | 0.3 | 0.3 | 1.6 | 0.1 | 0.8 | 0.2 | 0.1 | 0.0         | 0.6 | 0.3 | 0.1 | 0.4 | 0.5 | 0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 |
| Deaf              | 0.2 | 0.3 | 0.6 | 2.0 | 0.1 | 0.5 | 0.2 | 0.1 | 0.2         | 0.8 | 0.2 | 0.1 | 0.4 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| Mute              | 0.0 | 0.2 | 0.2 |     | 0.1 | 1.1 | 0.2 | 0.1 | 0.1         |     | 0.1 | 0.1 | 0.4 | 0.4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |     |
| Lower extremities | 0.4 |     | 0.5 |     | 0.2 |     | 0.4 |     |             |     | 0.2 |     | 0.2 | 0.2 | 0.3 | 0.1 | 0.2 | 0.6 |     |     |
| Upper extremities | 0.3 |     | 0.2 |     | 0.1 |     | 0.1 |     |             |     | 0.1 |     | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |     |     |
| Mobility          |     | 0.8 |     | 1.2 |     | 0.6 |     |     |             | 0.4 |     |     |     |     |     |     |     |     |     |     |
| Mental            | 0.1 | 0.5 | 0.1 | 2.8 |     | 1.0 | 0.1 | 0.0 |             | 0.5 | 0.1 | 0.0 | 0.2 | 0.2 |     |     |     |     | •   | 0.1 |
| Psychological     |     |     | 0.1 |     |     |     | 0.0 | 0.0 |             |     |     | 0.0 | 0.1 | 0.1 |     | 0.0 |     |     | 0.0 |     |
| Any disability    | 1.1 | 1.9 | 2.0 | 6.4 | 0.6 | 2.6 | 1.2 | 0.3 | 0.3         | 1.9 | 0.8 | 0.3 | 1.6 | 1.7 | 0.9 | 0.6 | 0.5 | 1.0 | 0.2 | 0.2 |

**Notes**: All numbers are in percentages (%). The table shows the prevalence of disability by domain, year and country. Missing entries implies that the disability domain is not observed in that dataset for that year. For example, In Rwanda the mobility disability domain variable was observed in 2012 but not in 2002.

### A.4 Main outcomes

Table A4: Ever enrolled in school

|                        |                      | With di              | sability leg         | gislation            |                      |                      | W/o di               | sability leg         | gislation       |                      |
|------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------|----------------------|
|                        | RWA                  | UGA                  | SEN                  | SLE                  | TZA                  | BEN                  | BWA                  | ETH                  | GIN             | MLI                  |
| Disabled x After       | 0.009                | 0.049***             | 0.193***             | 0.214***             | 0.071***             | -0.047*              | 0.065**              | -0.104***            | -0.105***       | 0.026                |
|                        | (0.035)              | (0.005)              | (0.038)              | (0.029)              | (0.022)              | (0.026)              | (0.026)              | (0.018)              | (0.028)         | (0.044)              |
| Disabled               | -0.281***<br>(0.029) | -0.080***<br>(0.006) | -0.334***<br>(0.041) | -0.186***<br>(0.028) | -0.129***<br>(0.021) | -0.170***<br>(0.020) | -0.195***<br>(0.017) | -0.025***<br>(0.007) | 0.020 $(0.026)$ | -0.075***<br>(0.027) |
| After                  | 0.128***             | 0.029***             | 0.199***             | 0.188***             | 0.153***             | 0.117***             | 0.063***             | 0.214***             | 0.049***        | 0.145***             |
|                        | (0.009)              | (0.003)              | (0.021)              | (0.012)              | (0.006)              | (0.007)              | (0.004)              | (0.017)              | (0.010)         | (0.012)              |
| Age                    | 0.040***             | 0.014***             | 0.019***             | 0.021***             | 0.113***             | 0.028***             | 0.073***             | 0.032***             | 0.009***        | 0.018***             |
|                        | (0.002)              | (0.001)              | (0.002)              | (0.001)              | (0.003)              | (0.002)              | (0.004)              | (0.002)              | (0.001)         | (0.001)              |
| Male                   | -0.013***            | 0.004**              | 0.021***             | 0.013***             | -0.037***            | 0.075***             | -0.012***            | 0.025***             | 0.103***        | 0.074***             |
|                        | (0.002)              | (0.002)              | (0.007)              | (0.004)              | (0.002)              | (0.005)              | (0.004)              | (0.006)              | (0.004)         | (0.006)              |
| No of siblings 5-17    | 0.004***             | 0.002***             | -0.003***            | 0.001                | -0.006***            | -0.004***            | -0.000               | 0.009***             | -0.001          | -0.000               |
|                        | (0.001)              | (0.000)              | (0.001)              | (0.001)              | (0.001)              | (0.001)              | (0.001)              | (0.001)              | (0.001)         | (0.001)              |
| HH head educ.          | 0.009***             | 0.007***             | 0.014***             | 0.011***             | 0.018***             | 0.015***             | 0.006***             | 0.037***             | 0.012***        | 0.029***             |
|                        | (0.001)              | (0.001)              | (0.001)              | (0.001)              | (0.001)              | (0.002)              | (0.000)              | (0.003)              | (0.002)         | (0.006)              |
| Poorest 40%            | -0.026***<br>(0.003) | -0.024***<br>(0.002) | -0.180***<br>(0.021) | -0.083***<br>(0.007) | -0.152***<br>(0.006) | -0.180***<br>(0.012) | -0.070***<br>(0.007) | -0.157***<br>(0.011) |                 | -0.115***<br>(0.016) |
| Constant               | 0.404***             | 0.691***             | 0.476***             | 0.536***             | -0.267***            | 0.391***             | 0.234***             | -0.120***            | 0.388***        | 0.180***             |
|                        | (0.023)              | (0.010)              | (0.026)              | (0.015)              | (0.024)              | (0.028)              | (0.035)              | (0.023)              | (0.022)         | (0.022)              |
| N                      | 268,173              | 1,764,634            | 244,488              | 89,808               | 661,051              | 311,317              | 49,630               | 972,993              | 263,806         | 362,577              |
| Adjusted R-squared     | 0.112                | 0.232                | 0.191                | 0.213                | 0.194                | 0.258                | 0.190                | 0.292                | 0.246           | 0.202                |
| Disabled Baseline Mean | 0.523                | 0.818                | 0.232 $0.572$        | 0.531                | 0.409                | 0.461                | 0.638                | 0.166                | 0.583           | 0.290                |
| Baseline Mean          | 0.809                | 0.887                |                      | 0.710                | 0.604                | 0.593                | 0.834                | 0.172                | 0.559           | 0.354                |

**Notes**: Table shows DiD regression estimates for the effect of disability law on ever enrolling in school for children with disability. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A5: Currently attending school

|   |                      | With di              | isability leg        | gislation            |                      |                      | W/o di               | sability leg         | gislation            |                      |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|   | RWA                  | UGA                  | SEN                  | SLE                  | TZA                  | BEN                  | BWA                  | ETH                  | GIN                  | MLI                  |
| Disabled x After                        | 0.014<br>(0.033)     | 0.035***<br>(0.006)  | 0.176***<br>(0.036)  | 0.202***<br>(0.032)  | 0.069***<br>(0.022)  | -0.059**<br>(0.027)  | 0.056**<br>(0.024)   | -0.078***<br>(0.022) | -0.120***<br>(0.029) | 0.021<br>(0.042)     |
| Disabled                                | -0.302***<br>(0.028) | -0.072***<br>(0.006) | -0.320***<br>(0.037) | -0.191***<br>(0.027) | -0.130***<br>(0.021) | -0.176***<br>(0.020) | -0.193***<br>(0.020) | -0.027***<br>(0.007) | 0.029 $(0.026)$      | -0.076***<br>(0.024) |
| After                                   | 0.198***<br>(0.010)  | 0.037***<br>(0.004)  | 0.134***<br>(0.016)  | 0.179***<br>(0.012)  | 0.155***<br>(0.006)  | 0.112***<br>(0.007)  | 0.058***<br>(0.004)  | 0.142***<br>(0.017)  | 0.003 $(0.012)$      | 0.158***<br>(0.011)  |
| Age                                     | 0.033***<br>(0.002)  | -0.009***<br>(0.001) | 0.013***<br>(0.001)  | 0.018***<br>(0.001)  | 0.111***<br>(0.003)  | 0.021***<br>(0.003)  | 0.069***<br>(0.004)  | 0.025***<br>(0.002)  | 0.004***<br>(0.001)  | 0.015***<br>(0.001)  |
| Male                                    | -0.015***<br>(0.002) | 0.015***<br>(0.003)  | 0.017**<br>(0.006)   | 0.014***<br>(0.003)  | -0.038***<br>(0.002) | 0.076***<br>(0.005)  | -0.016***<br>(0.004) | 0.020***<br>(0.005)  | 0.102***<br>(0.004)  | 0.070***<br>(0.006)  |
| No of siblings 5-17                     | 0.007***<br>(0.001)  | 0.013***<br>(0.001)  | -0.001*<br>(0.001)   | 0.001 $(0.001)$      | -0.006***<br>(0.001) | -0.004***<br>(0.001) | $0.000 \\ (0.002)$   | 0.009***<br>(0.001)  | -0.000<br>(0.001)    | -0.000<br>(0.001)    |
| HH head educ.                           | 0.010***<br>(0.001)  | 0.009***<br>(0.001)  | 0.014***<br>(0.001)  | 0.011***<br>(0.001)  | 0.018***<br>(0.001)  | 0.015***<br>(0.002)  | 0.006***<br>(0.000)  | 0.034***<br>(0.003)  | 0.012***<br>(0.002)  | 0.028***<br>(0.006)  |
| Poorest 40%                             | -0.031***<br>(0.003) | -0.032***<br>(0.002) | -0.172***<br>(0.018) | -0.084***<br>(0.007) | -0.151***<br>(0.006) | -0.182***<br>(0.012) | -0.078***<br>(0.008) | -0.143***<br>(0.010) |                      | -0.115***<br>(0.016) |
| Constant                                | 0.376***<br>(0.021)  | 0.810***<br>(0.012)  | 0.477***<br>(0.021)  | 0.548***<br>(0.014)  | -0.263***<br>(0.023) | 0.423***<br>(0.028)  | 0.252***<br>(0.034)  | -0.076***<br>(0.019) | 0.419***<br>(0.022)  | 0.177***<br>(0.022)  |
| N                                       | 266,177              | 1,764,634            | ,                    | 89,808               | 661,051              | 311,317              | 49,630               | 972,856              | 263,435              | 365,959              |
| Adjusted R-squared                      | 0.132                | 0.129                | 0.153                | 0.196                | 0.190                | 0.246                | 0.158                | 0.267                | 0.233                | 0.205                |
| Disabled Baseline Mean<br>Baseline Mean | 0.415<br>0.721       | 0.741<br>0.806       | 0.203<br>0.529       | 0.516<br>0.700       | 0.396<br>0.595       | 0.433<br>0.573       | 0.619<br>0.816       | 0.141<br>0.150       | 0.574<br>0.543       | 0.266<br>0.325       |

**Notes**: Table shows DiD regression estimates of the effect of disability law on current school attendance for children with disability. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A6: Years of schooling

|   |                      | With di              | isability leg        | gislation            |                      |                      | W/o di               | sability leg         | gislation |                      |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------|----------------------|
|   | RWA                  | UGA                  | SEN                  | SLE                  | TZA                  | BEN                  | BWA                  | ETH                  | GIN       | MLI                  |
| Disabled x After  | 0.029                | 0.193***             | 0.458***             | 0.104                | 0.099***             | -0.416***            | 0.032                | -0.171***            | 0.132**   | -0.071               |
|   | (0.073)              | (0.030)              | (0.094)              | (0.148)              | (0.029)              | (0.111)              | (0.086)              | (0.038)              | (0.066)   | (0.140)              |
| Disabled  | -0.625***            | -0.424***            | -0.690***            | -0.377***            | -0.214***            | -0.408***            | -0.559***            | -0.099***            | -0.411*** | -0.157*              |
|   | (0.063)              | (0.030)              | (0.107)              | (0.066)              | (0.029)              | (0.066)              | (0.063)              | (0.027)              | (0.057)   | (0.085)              |
| After   | -0.104***            | 0.324***             | -0.099***            | 0.267***             | 0.412***             | 0.782***             | 1.046***             | 0.299***             | 0.524***  | 0.465***             |
|   | (0.027)              | (0.028)              | (0.034)              | (0.031)              | (0.012)              | (0.034)              | (0.018)              | (0.033)              | (0.019)   | (0.024)              |
| Age   | 0.433***             | 0.575***             | 0.439***             | 0.400***             | 0.470***             | 0.460***             | 0.780***             | 0.144***             | 0.311***  | 0.271***             |
|   | (0.007)              | (0.012)              | (0.040)              | (0.018)              | (0.008)              | (0.020)              | (0.010)              | (0.017)              | (0.015)   | (0.029)              |
| Male  | -0.122***            | -0.088***            | -0.026               | 0.068***             | -0.090***            | 0.231***             | -0.132***            | 0.042***             | 0.343***  | 0.200***             |
|   | (0.008)              | (0.018)              | (0.025)              | (0.011)              | (0.004)              | (0.017)              | (0.010)              | (0.013)              | (0.009)   | (0.016)              |
| No of siblings 5-17                                       | 0.015***             | 0.014***             | -0.016***            | 0.016***             | -0.011***            | -0.011***            | -0.016***            | 0.023***             | -0.002    | -0.001               |
|   | (0.003)              | (0.002)              | (0.002)              | (0.003)              | (0.001)              | (0.002)              | (0.003)              | (0.003)              | (0.003)   | (0.003)              |
| HH head educ.   | 0.062***             | 0.066***             | 0.073***             | 0.034***             | 0.030***             | 0.079***             | 0.023***             | 0.094***             | 0.052***  | 0.114***             |
|   | (0.003)              | (0.002)              | (0.002)              | (0.002)              | (0.001)              | (0.002)              | (0.002)              | (0.006)              | (0.003)   | (0.015)              |
| Poorest 40%   | -0.182***<br>(0.010) | -0.299***<br>(0.012) | -0.427***<br>(0.055) | -0.146***<br>(0.017) | -0.258***<br>(0.009) | -0.575***<br>(0.035) | -0.255***<br>(0.018) | -0.323***<br>(0.026) |           | -0.362***<br>(0.044) |
| Constant  | -2.822***            | -3.753***            | -2.240***            | -2.060***            | -2.874***            | -2.295***            | -4.904***            | -1.018***            | -1.971*** | -1.696***            |
|   | (0.066)              | (0.118)              | (0.322)              | (0.136)              | (0.063)              | (0.191)              | (0.091)              | (0.155)              | (0.147)   | (0.253)              |
| N Adjusted R-squared Disabled Baseline Mean Baseline Mean | 267,179              | 1,763,484            | 244,488              | 89,613               | 661,051              | 311,317              | 49,602               | 969,746              | 284,400   | 345,548              |
|   | 0.390                | 0.651                | 0.278                | 0.239                | 0.326                | 0.376                | 0.718                | 0.272                | 0.269     | 0.280                |
|   | 0.788                | 2.496                | 0.588                | 0.899                | 0.488                | 1.284                | 1.051                | 0.260                | 0.746     | 0.678                |
|   | 1.424                | 2.900                | 1.283                | 1.242                | 0.796                | 1.502                | 1.552                | 0.330                | 1.185     | 0.830                |

**Notes**: Table shows DiD regression estimates of the effect of disability law on years of schooling for children with disability. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A7: Ever enrolled in school (Disabled versus siblings)

|                         |                      | With dia             | sability leg         | gislation            |                     | W/o disability legislation |                      |                      |                     |                      |  |
|-------------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------------|----------------------|----------------------|---------------------|----------------------|--|
|                         | RWA                  | UGA                  | SEN                  | SLE                  | TZA                 | BEN                        | BWA                  | ETH                  | GIN                 | MLI                  |  |
| Disabled x After        | -0.012<br>(0.027)    | 0.050***<br>(0.003)  | 0.155***<br>(0.030)  | 0.214***<br>(0.035)  | -0.016<br>(0.037)   | -0.038<br>(0.031)          | 0.063*<br>(0.037)    | -0.093***<br>(0.014) | -0.051*<br>(0.030)  | 0.068<br>(0.043)     |  |
| Disabled                | -0.233***<br>(0.025) | -0.085***<br>(0.003) | -0.319***<br>(0.028) | -0.214***<br>(0.018) | -0.040<br>(0.035)   | -0.170***<br>(0.020)       | -0.154***<br>(0.025) | -0.026***<br>(0.005) | -0.043 $(0.027)$    | -0.115***<br>(0.033) |  |
| After                   | 0.000 (.)            | 0.000 (.)            | 0.000 (.)            | 0.000 (.)            | 0.000 (.)           | 0.000 (.)                  | 0.000 (.)            | 0.000 (.)            | 0.000 (.)           | 0.000<br>(.)         |  |
| Constant                | 0.889***<br>(0.001)  | 0.908***<br>(0.000)  | 0.667***<br>(0.001)  | 0.853***<br>(0.001)  | 0.668***<br>(0.001) | 0.641***<br>(0.001)        | 0.864***<br>(0.002)  | 0.230***<br>(0.000)  | 0.575***<br>(0.001) | 0.456***<br>(0.001)  |  |
| N<br>Adjusted R-squared | 182,383<br>0.239     | 1,729,095<br>0.383   | 179,789<br>0.555     | 97,163<br>0.522      | 231,439<br>0.447    | 240,528<br>0.516           | 32,556<br>0.158      | 802,927<br>0.586     | 198,515<br>0.530    | 317,706<br>0.539     |  |

**Notes**: Table shows DiD regression estimates for the effect of disability law on ever enrolling in school for children with disability. Countries without legislation are included as a robustness check. Includes Household Fixed Effects. Robust standard errors in parenthesis with the following significance levels: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A8: Currently attending school (Disabled versus siblings)

|                         |                      | With di              | sability leg         | gislation            |                     | W/o disability legislation |                      |                      |                     |                      |  |
|-------------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------------|----------------------|----------------------|---------------------|----------------------|--|
|                         | RWA                  | UGA                  | SEN                  | SLE                  | TZA                 | BEN                        | BWA                  | ETH                  | GIN                 | MLI                  |  |
| Disabled x After        | -0.034<br>(0.028)    | 0.038***<br>(0.004)  | 0.153***<br>(0.031)  | 0.196***<br>(0.037)  | -0.018<br>(0.037)   | -0.045<br>(0.031)          | 0.039<br>(0.038)     | -0.077***<br>(0.013) | -0.054*<br>(0.030)  | 0.063<br>(0.043)     |  |
| Disabled                | -0.227***<br>(0.026) | -0.088***<br>(0.004) | -0.287***<br>(0.028) | -0.215***<br>(0.019) | -0.037 $(0.035)$    | -0.177***<br>(0.020)       | -0.143***<br>(0.026) | -0.027***<br>(0.005) | -0.033<br>(0.027)   | -0.107***<br>(0.032) |  |
| After                   | 0.000 (.)            | 0.000 (.)            | 0.000 (.)            | 0.000 (.)            | 0.000 (.)           | 0.000 (.)                  | 0.000 (.)            | 0.000 (.)            | 0.000 (.)           | 0.000 (.)            |  |
| Constant                | 0.855***<br>(0.001)  | 0.838***<br>(0.000)  | 0.590***<br>(0.001)  | 0.840***<br>(0.001)  | 0.658***<br>(0.001) | 0.619***<br>(0.001)        | 0.846***<br>(0.002)  | 0.192***<br>(0.000)  | 0.530***<br>(0.001) | 0.432***<br>(0.001)  |  |
| N<br>Adjusted R-squared | 181,582<br>0.347     | 1,729,095<br>0.359   | 179,789<br>0.583     | 97,163<br>0.509      | 231,439<br>0.446    | 240,528<br>0.509           | 32,556<br>0.205      | 802,778<br>0.604     | 198,184<br>0.549    | 323,129<br>0.543     |  |

**Notes**: Table shows DiD regression estimates of the effect of disability law on current school attendance for children with disability. Countries without legislation are included as a robustness check. Includes Household Fixed Effects. Robust standard errors in parenthesis with the following significance levels: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A9: Years of schooling (Disabled versus siblings)

|                         |                      | With di              | sability leg         | gislation            |                     | W/o disability legislation |                     |                      |                      |                     |  |
|-------------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------------|---------------------|----------------------|----------------------|---------------------|--|
|                         | RWA                  | UGA                  | SEN                  | SLE                  | TZA                 | BEN                        | BWA                 | ETH                  | GIN                  | MLI                 |  |
| Disabled x After        | 0.217*<br>(0.122)    | 0.495***<br>(0.035)  | 0.285**<br>(0.115)   | 0.437**<br>(0.183)   | -0.040<br>(0.082)   | -0.390***<br>(0.141)       | -0.229<br>(0.191)   | -0.258***<br>(0.045) | 0.137<br>(0.100)     | 0.001<br>(0.170)    |  |
| Disabled                | -0.702***<br>(0.111) | -0.368***<br>(0.032) | -0.645***<br>(0.106) | -0.297***<br>(0.092) | -0.029<br>(0.076)   | -0.351***<br>(0.090)       | -0.259**<br>(0.131) | -0.063***<br>(0.016) | -0.395***<br>(0.083) | -0.153 $(0.126)$    |  |
| After                   | 0.000 (.)            | 0.000 (.)            | 0.000 (.)            | 0.000 (.)            | 0.000 (.)           | 0.000 (.)                  | 0.000 (.)           | 0.000 (.)            | 0.000 (.)            | 0.000 (.)           |  |
| Constant                | 1.388***<br>(0.003)  | 3.065***<br>(0.002)  | 1.190***<br>(0.003)  | 1.547***<br>(0.004)  | 1.010***<br>(0.002) | 1.920***<br>(0.003)        | 2.037***<br>(0.009) | 0.430***<br>(0.001)  | 1.491***<br>(0.003)  | 1.189***<br>(0.002) |  |
| N<br>Adjusted R-squared | 180,774<br>0.104     | 1,727,861<br>0.185   | 179,789<br>0.371     | 96,356<br>0.303      | 231,623<br>0.294    | 240,528<br>0.395           | 32,532<br>0.112     | 794,914<br>0.394     | 217,953<br>0.369     | 294,379<br>0.456    |  |

**Notes**: Table shows DiD regression estimates of the effect of disability law on years of schooling for children with disability. Countries without legislation are included as a robustness check. Includes Household Fixed Effects. Robust standard errors in parenthesis with the following significance levels: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

A.5 Spillover effects to siblings

Table A10: Ever enrolled in school for siblings of children with disabilities

|                     |                      | With di               | isability le          | gislation             |                       | W/o disability legislation |                       |                       |                    |                      |
|---------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|--------------------|----------------------|
|                     | RWA                  | UGA                   | SEN                   | SLE                   | TZA                   | BEN                        | BWA                   | ETH                   | GIN                | MLI                  |
| Sibling x After     | 0.070 $(0.045)$      | 0.006 $(0.005)$       | -0.018<br>(0.078)     | 0.019 $(0.033)$       | 0.120**<br>(0.053)    | -0.017<br>(0.039)          | 0.066*<br>(0.033)     | -0.090***<br>(0.030)  | (-0.044<br>(0.031) | -0.062<br>(0.066)    |
| Sibling             | -0.091**<br>(0.042)  | -0.013***<br>(0.005)  | (0.027) (0.070)       | 0.038 $(0.030)$       | -0.137***<br>(0.050)  | *-0.025<br>(0.024)         | -0.074***<br>(0.025)  | *0.013*<br>(0.007)    | 0.034 $(0.026)$    | 0.093*<br>(0.051)    |
| After               | 0.127***             | 0.030***              | 0.199***              | 0.188***              | 0.153***              | 0.117***                   | 0.062***              | 0.214***              | 0.050***           | *0.145***            |
|                     | (0.009)              | (0.003)               | (0.021)               | (0.012)               | (0.006)               | (0.007)                    | (0.004)               | (0.017)               | (0.010)            | (0.012)              |
| Age                 | 0.040***             | 0.014***              | 0.020***              | 0.021***              | 0.114***              | 0.028***                   | 0.073***              | 0.032***              | 0.009***           | *0.018***            |
|                     | (0.002)              | (0.001)               | (0.002)               | (0.001)               | (0.003)               | (0.002)                    | (0.004)               | (0.002)               | (0.001)            | (0.001)              |
| Male                | -0.013***            | *0.004**              | 0.021***              | 0.013***              | -0.037***             | *0.075***                  | -0.012***             | *0.025***             | 0.103***           | *0.074***            |
|                     | (0.002)              | (0.002)               | (0.007)               | (0.004)               | (0.002)               | (0.005)                    | (0.004)               | (0.006)               | (0.004)            | (0.006)              |
| No of siblings 5-17 | 0.004***<br>(0.001)  | 0.002***<br>(0.000)   | -0.003***<br>(0.001)  | (0.001)               | -0.007***<br>(0.001)  | *-0.004***<br>(0.001)      | *-0.000<br>(0.001)    | 0.009***<br>(0.001)   | -0.001<br>(0.001)  | -0.000<br>(0.001)    |
| HH head educ.       | 0.009***             | 0.007***              | 0.014***              | 0.011***              | 0.018***              | 0.015***                   | 0.006***              | 0.037***              | 0.012***           | *0.029***            |
|                     | (0.001)              | (0.001)               | (0.001)               | (0.001)               | (0.001)               | (0.002)                    | (0.000)               | (0.003)               | (0.002)            | (0.006)              |
| Poorest 40%         | -0.026***<br>(0.003) | *-0.024***<br>(0.002) | *-0.180***<br>(0.021) | *-0.084***<br>(0.007) | *-0.152***<br>(0.006) | *-0.180***<br>(0.013)      | *-0.069***<br>(0.007) | *-0.158***<br>(0.011) | •                  | -0.115***<br>(0.016) |
| Constant            | 0.404***             | 0.692***              | 0.474***              | 0.537***              | -0.269***             | *0.392***                  | 0.237***              | -0.120***             | 0.387**>           | *0.180***            |
|                     | (0.022)              | (0.010)               | (0.026)               | (0.015)               | (0.024)               | (0.029)                    | (0.035)               | (0.023)               | (0.022)            | (0.022)              |
| N                   | 265,903              | 1,692,586             | 3 241,851             | 89,311                | 656,155               | 310,236                    | 48,878                | 965,634               | 261,800            | 362,054              |
| Adjusted R-squared  | 10.109               | 0.239                 | 0.191                 | 0.212                 | 0.194                 | 0.258                      | 0.189                 | 0.293                 | 0.246              | 0.202                |

**Notes**: Table shows DiD regression estimates for the effect of disability law on ever enrolling in school for siblings of children with disability. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A11: Currently attending school for siblings of children with disabilities

|                         |                      | With di                 | sability le          | gislation            |                      |                      | W/o dis              | sability leg         | islation            |                      |
|-------------------------|----------------------|-------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|
|                         | RWA                  | $\overline{\text{UGA}}$ | SEN                  | SLE                  | TZA                  | BEN                  | BWA                  | ETH                  | GIN                 | MLI                  |
| Sibling x After         | 0.100*<br>(0.057)    | 0.006<br>(0.006)        | -0.004<br>(0.064)    | 0.037 $(0.032)$      | 0.112**<br>(0.053)   | -0.014<br>(0.040)    | 0.093**<br>(0.036)   | -0.048<br>(0.030)    | -0.031<br>(0.032)   | -0.041<br>(0.063)    |
| Sibling                 | -0.132**<br>(0.054)  | -0.021***<br>(0.006)    | 0.013 $(0.059)$      | 0.035 $(0.031)$      | -0.130**<br>(0.050)  | -0.025 $(0.023)$     | -0.089***<br>(0.029) | 0.011*<br>(0.006)    | 0.029 $(0.026)$     | 0.071 $(0.048)$      |
| After                   | 0.198***<br>(0.010)  | 0.037***<br>(0.004)     | 0.134***<br>(0.016)  | 0.179***<br>(0.012)  | 0.155***<br>(0.006)  | 0.112***<br>(0.007)  | 0.058***<br>(0.004)  | 0.142***<br>(0.017)  | 0.003 $(0.012)$     | 0.158***<br>(0.011)  |
| Age                     | 0.033***<br>(0.002)  | -0.009***<br>(0.001)    | 0.014***<br>(0.001)  | 0.018***<br>(0.001)  | 0.112***<br>(0.003)  | 0.021***<br>(0.003)  | 0.069***<br>(0.004)  | 0.025***<br>(0.002)  | 0.004***<br>(0.001) | 0.015***<br>(0.001)  |
| Male                    | -0.016***<br>(0.002) | 0.015***<br>(0.003)     | 0.017**<br>(0.006)   | 0.014***<br>(0.003)  | -0.038***<br>(0.002) | 0.076***<br>(0.005)  | -0.017***<br>(0.004) | 0.020***<br>(0.005)  | 0.102***<br>(0.004) | 0.070***<br>(0.006)  |
| No of siblings 5-17     | 0.007***<br>(0.001)  | 0.013***<br>(0.001)     | -0.002*<br>(0.001)   | 0.001<br>(0.001)     | -0.006***<br>(0.001) | -0.004***<br>(0.001) | 0.001 $(0.002)$      | 0.009***<br>(0.001)  | -0.000<br>(0.001)   | -0.000<br>(0.001)    |
| HH head educ.           | 0.010***<br>(0.001)  | 0.009***<br>(0.001)     | 0.014***<br>(0.001)  | 0.011***<br>(0.001)  | 0.018***<br>(0.001)  | 0.015***<br>(0.002)  | 0.006***<br>(0.000)  | 0.034***<br>(0.003)  | 0.012***<br>(0.002) | 0.028***<br>(0.006)  |
| Poorest 40%             | -0.031***<br>(0.003) | -0.032***<br>(0.002)    | -0.173***<br>(0.018) | -0.084***<br>(0.007) | -0.151***<br>(0.006) | -0.183***<br>(0.012) | -0.077***<br>(0.009) | -0.143***<br>(0.010) |                     | -0.115***<br>(0.016) |
| Constant                | 0.377***<br>(0.020)  | 0.810***<br>(0.012)     | 0.475***<br>(0.020)  | 0.549***<br>(0.014)  | -0.265***<br>(0.023) | 0.424***<br>(0.028)  | 0.255***<br>(0.034)  | -0.076***<br>(0.019) | 0.418***<br>(0.022) | 0.177***<br>(0.022)  |
| N<br>Adjusted R-squared | 263,905<br>0.130     | 1,692,586<br>0.132      | 241,851<br>0.153     | 89,311<br>0.195      | 656,155<br>0.190     | 310,236<br>0.246     | 48,878<br>0.157      | 965,501<br>0.268     | 261,430<br>0.233    | 365,433<br>0.205     |

Notes: Table shows DiD regression estimates of the effect of disability law on current school attendance for siblings of children with disability. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels:  $^*p<0.1$ ;  $^{**}p<0.05$ ;  $^{***}p<0.01$ 

Table A12: Years of schooling of siblings of children with disabilities

|                     |                      | With d               | isability le         | gislation            |                      |                      | W/o di               | sability leg         | gislation       |                      |
|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------|----------------------|
|                     | RWA                  | UGA                  | SEN                  | SLE                  | TZA                  | BEN                  | BWA                  | ETH                  | GIN             | MLI                  |
| Sibling x After     | -0.124               | -0.244***            | -0.360*              | -0.157               | -0.014               | -0.340**             | -0.322***            | -0.190***            | -0.090          | -0.128               |
|                     | (0.075)              | (0.021)              | (0.200)              | (0.163)              | (0.055)              | (0.131)              | (0.078)              | (0.052)              | (0.084)         | (0.138)              |
| Sibling             | -0.010 $(0.075)$     | 0.084***<br>(0.021)  | 0.330*<br>(0.188)    | 0.150**<br>(0.073)   | -0.025 $(0.051)$     | 0.117 $(0.075)$      | 0.122**<br>(0.047)   | 0.016 $(0.012)$      | 0.045 $(0.061)$ | 0.261**<br>(0.121)   |
| After               | -0.103***            | 0.333***             | -0.098***            | 0.267***             | 0.412***             | 0.783***             | 1.049***             | 0.299***             | 0.524***        | 0.465***             |
|                     | (0.027)              | (0.028)              | (0.034)              | (0.031)              | (0.012)              | (0.034)              | (0.018)              | (0.033)              | (0.019)         | (0.024)              |
| Age                 | 0.434***             | 0.575***             | 0.440***             | 0.401***             | 0.471***             | 0.461***             | 0.783***             | 0.144***             | 0.312***        | 0.271***             |
|                     | (0.007)              | (0.012)              | (0.040)              | (0.018)              | (0.008)              | (0.020)              | (0.010)              | (0.017)              | (0.015)         | (0.029)              |
| Male                | -0.123***            | -0.088***            | -0.026               | 0.067***             | -0.090***            | 0.232***             | -0.133***            | 0.042***             | 0.344***        | 0.200***             |
|                     | (0.008)              | (0.018)              | (0.025)              | (0.011)              | (0.004)              | (0.017)              | (0.011)              | (0.013)              | (0.009)         | (0.016)              |
| No of siblings 5-17 | 0.016***             | 0.015***             | -0.016***            | 0.015***             | -0.011***            | -0.011***            | -0.017***            | 0.023***             | -0.002          | -0.001               |
|                     | (0.003)              | (0.002)              | (0.002)              | (0.003)              | (0.001)              | (0.002)              | (0.003)              | (0.003)              | (0.003)         | (0.003)              |
| HH head educ.       | 0.062***             | 0.066***             | 0.073***             | 0.034***             | 0.030***             | 0.079***             | 0.023***             | 0.094***             | 0.052***        | 0.114***             |
|                     | (0.003)              | (0.002)              | (0.002)              | (0.002)              | (0.001)              | (0.002)              | (0.002)              | (0.006)              | (0.003)         | (0.015)              |
| Poorest 40%         | -0.183***<br>(0.011) | -0.300***<br>(0.012) | -0.429***<br>(0.055) | -0.146***<br>(0.017) | -0.258***<br>(0.008) | -0.576***<br>(0.035) | -0.257***<br>(0.018) | -0.323***<br>(0.026) |                 | -0.362***<br>(0.045) |
| Constant            | -2.836***            | -3.754***            | -2.249***            | -2.067***            | -2.876***            | -2.300***            | -4.927***            | -1.022***            | -1.978***       | -1.697***            |
|                     | (0.066)              | (0.120)              | (0.323)              | (0.137)              | (0.063)              | (0.191)              | (0.091)              | (0.156)              | (0.147)         | (0.253)              |
| N                   | 264,923              | 1,691,523            | 241,851              | 89,118               | 656,155              | 310,236              | 48,852               | 962,392              | 282,081         | 345,051              |
| Adjusted R-squared  | 0.391                | 0.653                | 0.278                | 0.239                | 0.326                | 0.377                | 0.721                | 0.273                | 0.269           | 0.280                |

**Notes**: Table shows DiD regression estimates of the effect of disability law on years of schooling for siblings of children with disability. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

## A.6 Heterogeneous analysis

Table A13: Ever enrolled in school (Blind, Deaf and Mental Domains)

|                         |                      | With d               | isability le         | gislation            |                      |                      | W/o di               | sability leg         | gislation            |                      |
|-------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                         | RWA                  | UGA                  | SEN                  | SLE                  | TZA                  | BEN                  | BWA                  | ETH                  | GIN                  | MLI                  |
| Blind x After           | 0.057 $(0.051)$      | 0.012<br>(0.008)     | -0.005<br>(0.053)    | 0.077<br>(0.051)     | 0.141***<br>(0.043)  | 0.026<br>(0.038)     | -0.029<br>(0.041)    | -0.057*<br>(0.032)   | -0.469***<br>(0.094) | 0.028<br>(0.050)     |
| Deaf x After            | 0.145***<br>(0.041)  | 0.028***<br>(0.007)  | 0.146**<br>(0.059)   | 0.122***<br>(0.045)  | 0.041 $(0.027)$      | -0.049 $(0.045)$     | 0.025 $(0.061)$      | -0.093***<br>(0.031) | -0.194***<br>(0.071) | 0.037 $(0.061)$      |
| Mental x After          | -0.036 $(0.067)$     | 0.238***<br>(0.016)  |                      | 0.343***<br>(0.081)  |                      | -0.015 $(0.095)$     | 0.251***<br>(0.069)  |                      |                      |                      |
| Blind                   | -0.105**<br>(0.048)  | -0.031***<br>(0.007) | -0.063 $(0.048)$     | -0.034 $(0.051)$     | -0.158***<br>(0.042) | -0.065**<br>(0.030)  | -0.043 $(0.043)$     | -0.021**<br>(0.008)  | 0.202**<br>(0.082)   | -0.043<br>(0.034)    |
| Deaf                    | -0.316***<br>(0.032) | -0.057***<br>(0.007) | -0.328***<br>(0.062) | -0.084**<br>(0.040)  | -0.123***<br>(0.025) | -0.193***<br>(0.034) | -0.079*<br>(0.044)   | -0.046***<br>(0.011) | -0.148***<br>(0.056) | -0.110***<br>(0.036) |
| Mental                  | -0.322***<br>(0.066) | -0.287***<br>(0.015) |                      | -0.307***<br>(0.071) |                      | -0.284***<br>(0.067) | -0.411***<br>(0.055) |                      |                      |                      |
| After                   | 0.127***<br>(0.009)  | 0.030***<br>(0.003)  | 0.198***<br>(0.021)  | 0.189***<br>(0.012)  | 0.153***<br>(0.006)  | 0.117***<br>(0.007)  | 0.063***<br>(0.003)  | 0.214***<br>(0.017)  | 0.049***<br>(0.010)  | 0.145***<br>(0.012)  |
| N<br>Adjusted R-squared | 268,173              | 1,764,634            | 244,488              | 89,808               | 661,051              | 311,317              | 49,630               | 972,993              | 263,806              | 362,577              |

**Notes**: Table shows DiD regression estimates for the effect of disability law on ever enrolling in school of children with disability. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A14: Currently attending school (Blind, Deaf and Mental Domains)

|                         |                      | With d               | isability le         | gislation            |                      |                      | W/o di               | sability leg         | gislation            |                      |
|-------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                         | RWA                  | UGA                  | SEN                  | SLE                  | TZA                  | BEN                  | BWA                  | ETH                  | GIN                  | MLI                  |
| Blind x After           | 0.057 $(0.054)$      | 0.012<br>(0.010)     | -0.001<br>(0.053)    | 0.097*<br>(0.049)    | 0.159***<br>(0.043)  | 0.030<br>(0.043)     | -0.071<br>(0.043)    | -0.023<br>(0.033)    | -0.452***<br>(0.093) | 0.032<br>(0.049)     |
| Deaf x After            | 0.164***<br>(0.038)  | 0.015**<br>(0.007)   | 0.128**<br>(0.059)   | 0.118**<br>(0.048)   | 0.034 $(0.026)$      | -0.074*<br>(0.044)   | 0.048 $(0.057)$      | -0.086**<br>(0.033)  | -0.182***<br>(0.067) | 0.028 $(0.057)$      |
| Mental x After          | -0.022 $(0.062)$     | 0.231***<br>(0.017)  |                      | 0.171 $(0.164)$      |                      | -0.051 $(0.099)$     | 0.239***<br>(0.067)  |                      |                      |                      |
| Blind                   | -0.114**<br>(0.050)  | -0.026***<br>(0.010) | -0.088*<br>(0.044)   | -0.034 $(0.050)$     | -0.180***<br>(0.043) | -0.086***<br>(0.031) | -0.024 $(0.042)$     | -0.029***<br>(0.008) | 0.214***<br>(0.081)  | -0.035 $(0.034)$     |
| Deaf                    | -0.335***<br>(0.029) | -0.044***<br>(0.007) | -0.301***<br>(0.057) | -0.089**<br>(0.040)  | -0.118***<br>(0.025) | -0.195***<br>(0.034) | -0.077*<br>(0.040)   | -0.044***<br>(0.011) | -0.130**<br>(0.055)  | -0.121***<br>(0.030) |
| Mental                  | -0.365***<br>(0.061) | -0.295***<br>(0.017) |                      | -0.318***<br>(0.072) |                      | -0.259***<br>(0.067) | -0.441***<br>(0.052) |                      |                      |                      |
| After                   | 0.198***<br>(0.010)  | 0.037***<br>(0.004)  | 0.133***<br>(0.016)  | 0.180***<br>(0.012)  | 0.155***<br>(0.006)  | 0.113***<br>(0.007)  | 0.058***<br>(0.004)  | 0.142***<br>(0.017)  | 0.002 $(0.012)$      | 0.158***<br>(0.011)  |
| N<br>Adjusted R-squared | 266,177              | 1,764,634            | 244,488              | 89,808               | 661,051              | 311,317              | 49,630               | 972,856              | 263,435              | 365,959              |

**Notes**: Table shows DiD regression estimates of the effect of disability law on current school attendance of children with disability. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A15: Years of schooling (Blind, Deaf and Mental Domains)

|                                       |                         | With di                   | sability leg            | gislation              |                         |                         | W/o di                 | sability leg            | gislation               |                         |
|---------------------------------------|-------------------------|---------------------------|-------------------------|------------------------|-------------------------|-------------------------|------------------------|-------------------------|-------------------------|-------------------------|
|                                       | RWA                     | UGA                       | SEN                     | SLE                    | TZA                     | BEN                     | BWA                    | ETH                     | GIN                     | MLI                     |
| Blind x After                         | 0.067<br>(0.162)        | 0.293***<br>(0.045)       | 0.010<br>(0.145)        | 0.179<br>(0.288)       | 0.229***<br>(0.066)     | 0.073<br>(0.170)        | 0.191<br>(0.126)       | -0.046<br>(0.069)       | -0.726***<br>(0.254)    | -0.089<br>(0.204)       |
| Deaf x After                          | 0.198**<br>(0.094)      | -0.007 $(0.031)$          | 0.330**<br>(0.147)      | 0.005 $(0.282)$        | 0.049 $(0.036)$         | -0.601***<br>(0.178)    | -0.005<br>(0.188)      | -0.142**<br>(0.067)     | -0.430**<br>(0.175)     | -0.016<br>(0.177)       |
| Mental x After                        | 0.028<br>(0.160)        | 1.199***<br>(0.079)       |                         | -0.422<br>(0.341)      |                         | -0.255 $(0.326)$        | 0.230 $(0.202)$        |                         |                         |                         |
| Blind                                 | -0.230<br>(0.163)       | -0.187***<br>(0.040)      | 0.008 $(0.142)$         | -0.144<br>(0.129)      | -0.268***<br>(0.064)    | -0.090<br>(0.107)       | -0.245**<br>(0.114)    | -0.116***<br>(0.031)    | -0.229<br>(0.170)       | -0.035 $(0.124)$        |
| Deaf                                  | -0.702***<br>(0.071)    | -0.277***<br>(0.030)      | -0.689***<br>(0.144)    | -0.241*<br>(0.128)     | -0.202***<br>(0.035)    | -0.526***<br>(0.115)    | -0.301**<br>(0.107)    | -0.139***<br>(0.035)    | -0.575***<br>(0.132)    | -0.289***<br>(0.097)    |
| Mental                                | -0.786***<br>(0.149)    | -1.576***<br>(0.081)      |                         | -0.435*<br>(0.228)     |                         | -0.775***<br>(0.224)    | -0.960***<br>(0.152)   |                         |                         |                         |
| After                                 | -0.105***<br>(0.027)    | 0.326***<br>(0.028)       | -0.100***<br>(0.034)    | 0.268***<br>(0.031)    | 0.412***<br>(0.012)     | 0.782***<br>(0.034)     | 1.044***<br>(0.018)    | 0.298***<br>(0.033)     | 0.524***<br>(0.019)     | 0.465***<br>(0.024)     |
| N<br>Adjusted R-squared<br>Covariates | 267,179<br>0.390<br>Yes | 1,763,484<br>0.651<br>Yes | 244,488<br>0.278<br>Yes | 89,613<br>0.239<br>Yes | 661,051<br>0.326<br>Yes | 311,317<br>0.376<br>Yes | 49,602<br>0.717<br>Yes | 969,746<br>0.272<br>Yes | 284,400<br>0.269<br>Yes | 345,548<br>0.280<br>Yes |

**Notes**: Table shows DiD regression estimates of the effect of disability law on years of schooling of children with disability. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A16: Ever enrolled in school (Younger vs Older Cohorts)

|                                       |                         | With d                    | isability leg           | gislation              |                         |                         | W/o di                 | sability leg            | gislation               |                         |
|---------------------------------------|-------------------------|---------------------------|-------------------------|------------------------|-------------------------|-------------------------|------------------------|-------------------------|-------------------------|-------------------------|
|                                       | RWA                     | UGA                       | SEN                     | SLE                    | TZA                     | BEN                     | BWA                    | ETH                     | GIN                     | MLI                     |
| Disabled x Younger x After            | 0.037 $(0.063)$         | 0.026**<br>(0.013)        | 0.064<br>(0.073)        | 0.259***<br>(0.068)    | -0.024<br>(0.053)       | 0.005 $(0.075)$         | 0.178**<br>(0.069)     | -0.088*<br>(0.046)      | -0.026<br>(0.062)       | 0.021<br>(0.088)        |
| Disabled x Older x After              | -0.094*<br>(0.056)      | 0.009 $(0.011)$           | -0.058 $(0.056)$        | 0.059 $(0.065)$        | -0.096*<br>(0.054)      | -0.080<br>(0.076)       | 0.069 $(0.054)$        | 0.047 $(0.053)$         | 0.116*<br>(0.063)       | -0.005 $(0.076)$        |
| Disabled x After                      | 0.031 $(0.049)$         | 0.040***<br>(0.007)       | 0.185***<br>(0.040)     | 0.092 $(0.057)$        | 0.111***<br>(0.040)     | -0.024 $(0.051)$        | -0.007 $(0.042)$       | -0.089**<br>(0.038)     | -0.138***<br>(0.046)    | 0.021 $(0.069)$         |
| Disabled x Younger                    | 0.047 $(0.059)$         | -0.041***<br>(0.013)      | -0.008<br>(0.066)       | -0.168**<br>(0.066)    | 0.068 $(0.048)$         | -0.027 $(0.042)$        | -0.139**<br>(0.052)    | 0.017**<br>(0.008)      | 0.006 $(0.058)$         | -0.014<br>(0.057)       |
| Disabled x Older                      | 0.155***<br>(0.055)     | -0.009<br>(0.011)         | -0.010 $(0.054)$        | -0.084<br>(0.063)      | 0.062 $(0.051)$         | 0.011 $(0.042)$         | -0.011<br>(0.048)      | -0.011<br>(0.010)       | -0.142**<br>(0.059)     | -0.002<br>(0.062)       |
| Disabled                              | -0.351***<br>(0.041)    | -0.068***<br>(0.007)      | -0.330***<br>(0.046)    | -0.086<br>(0.056)      | -0.174***<br>(0.038)    | -0.165***<br>(0.031)    | -0.155***<br>(0.031)   | -0.027***<br>(0.009)    | 0.068 $(0.043)$         | -0.070<br>(0.044)       |
| After                                 | 0.127***<br>(0.009)     | 0.030***<br>(0.003)       | 0.198***<br>(0.021)     | 0.188***<br>(0.012)    | 0.153***<br>(0.006)     | 0.117***<br>(0.007)     | 0.063***<br>(0.003)    | 0.214***<br>(0.017)     | 0.050***<br>(0.010)     | 0.144***<br>(0.012)     |
| Younger                               | -0.031***<br>(0.004)    | -0.067***<br>(0.003)      | -0.002 $(0.005)$        | -0.013**<br>(0.005)    | -0.141***<br>(0.004)    | 0.008**<br>(0.004)      | 0.006 $(0.004)$        | -0.030***<br>(0.003)    | -0.041***<br>(0.005)    | -0.047***<br>(0.004)    |
| Older                                 | -0.099***<br>(0.004)    | -0.060***<br>(0.003)      | -0.050***<br>(0.005)    | -0.026***<br>(0.005)   | 0.085***<br>(0.003)     | -0.080***<br>(0.003)    | -0.240***<br>(0.012)   | 0.019***<br>(0.002)     | 0.003 $(0.005)$         | 0.002<br>(0.005)        |
| N<br>Adjusted R-squared<br>Covariates | 268,173<br>0.121<br>Yes | 1,764,634<br>0.243<br>Yes | 244,488<br>0.191<br>Yes | 89,808<br>0.214<br>Yes | 661,051<br>0.194<br>Yes | 311,317<br>0.260<br>Yes | 49,630<br>0.225<br>Yes | 972,993<br>0.292<br>Yes | 263,806<br>0.246<br>Yes | 362,577<br>0.203<br>Yes |

**Notes**: Table shows DiD regression estimates for the effect of disability law on ever enrolling in school of children with disability. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A17: Currently attending school (Younger vs Older Cohorts)

|                                       |                         | With di                   | sability leg            | gislation              |                         |                         | W/o di                 | sability leg            | gislation               |                         |
|---------------------------------------|-------------------------|---------------------------|-------------------------|------------------------|-------------------------|-------------------------|------------------------|-------------------------|-------------------------|-------------------------|
|                                       | RWA                     | UGA                       | SEN                     | SLE                    | TZA                     | BEN                     | BWA                    | ETH                     | GIN                     | MLI                     |
| Disabled x Younger x After            | 0.017<br>(0.059)        | 0.025*<br>(0.013)         | 0.036 $(0.075)$         | 0.173**<br>(0.081)     | -0.023<br>(0.053)       | -0.011<br>(0.075)       | 0.210***<br>(0.073)    | -0.084**<br>(0.041)     | 0.011<br>(0.061)        | 0.050<br>(0.082)        |
| Disabled x Older x After              | -0.064 $(0.055)$        | -0.021<br>(0.013)         | -0.021 $(0.057)$        | 0.090<br>(0.066)       | -0.100*<br>(0.055)      | -0.076<br>(0.070)       | 0.132**<br>(0.061)     | 0.035 $(0.050)$         | 0.122*<br>(0.063)       | 0.030 $(0.075)$         |
| Disabled x After                      | 0.031 $(0.052)$         | 0.036***<br>(0.008)       | 0.167***<br>(0.040)     | 0.098*<br>(0.057)      | 0.110***<br>(0.039)     | -0.032 $(0.052)$        | -0.050 $(0.043)$       | -0.060 $(0.042)$        | -0.167***<br>(0.045)    | -0.005 $(0.068)$        |
| Disabled x Younger                    | 0.084 $(0.055)$         | -0.037***<br>(0.013)      | 0.013 $(0.066)$         | -0.179***<br>(0.067)   | 0.074 $(0.047)$         | -0.004 $(0.045)$        | -0.134**<br>(0.051)    | 0.008<br>(0.008)        | -0.006 $(0.059)$        | -0.020 $(0.055)$        |
| Disabled x Older                      | 0.133**<br>(0.054)      | 0.013 $(0.013)$           | -0.027 $(0.059)$        | -0.107*<br>(0.064)     | 0.065 $(0.052)$         | 0.040 $(0.043)$         | -0.029<br>(0.036)      | -0.018*<br>(0.009)      | -0.118**<br>(0.058)     | -0.006<br>(0.064)       |
| Disabled                              | -0.376***<br>(0.043)    | -0.069***<br>(0.008)      | -0.316***<br>(0.044)    | -0.076<br>(0.056)      | -0.178***<br>(0.037)    | -0.188***<br>(0.031)    | -0.148***<br>(0.025)   | -0.024***<br>(0.009)    | 0.073*<br>(0.042)       | -0.067<br>(0.044)       |
| After                                 | 0.197***<br>(0.010)     | 0.038***<br>(0.004)       | 0.133***<br>(0.016)     | 0.179***<br>(0.012)    | 0.154***<br>(0.006)     | 0.113***<br>(0.007)     | 0.059***<br>(0.004)    | 0.142***<br>(0.017)     | 0.003 $(0.012)$         | 0.157***<br>(0.011)     |
| Younger                               | -0.040***<br>(0.004)    | -0.156***<br>(0.004)      | $0.000 \\ (0.006)$      | -0.015**<br>(0.006)    | -0.138***<br>(0.004)    | 0.010***<br>(0.004)     | 0.011***<br>(0.004)    | -0.028***<br>(0.002)    | -0.046***<br>(0.005)    | -0.049***<br>(0.004)    |
| Older                                 | -0.103***<br>(0.005)    | -0.102***<br>(0.003)      | -0.060***<br>(0.005)    | -0.024***<br>(0.005)   | 0.083***<br>(0.003)     | -0.090***<br>(0.003)    | -0.237***<br>(0.014)   | 0.015***<br>(0.002)     | 0.004 $(0.005)$         | 0.001 $(0.005)$         |
| N<br>Adjusted R-squared<br>Covariates | 266,177<br>0.141<br>Yes | 1,764,634<br>0.157<br>Yes | 244,488<br>0.154<br>Yes | 89,808<br>0.196<br>Yes | 661,051<br>0.191<br>Yes | 311,317<br>0.248<br>Yes | 49,630<br>0.188<br>Yes | 972,856<br>0.268<br>Yes | 263,435<br>0.234<br>Yes | 365,959<br>0.206<br>Yes |

**Notes**: Table shows DiD regression estimates of the effect of disability law on current school attendance of children with disability. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A18: Years of schooling (Younger vs Older Cohorts)

|                            |                     | With disability legislation W/o disability legislation |                     |                   |                     |                     |                     |                     | gislation          |                  |
|----------------------------|---------------------|--|---------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|------------------|
|                            | RWA                 | UGA  | SEN                 | SLE               | TZA                 | BEN                 | BWA                 | ETH                 | GIN                | MLI              |
| Disabled x Younger x After | 0.037               | -0.467***  | -0.185              | -0.009            | -0.264***           | -0.103              | -0.382*             | -0.216***           | -0.209             | -0.255           |
|                            | (0.116)             | (0.047)  | (0.131)             | (0.371)           | (0.061)             | (0.204)             | (0.219)             | (0.072)             | (0.131)            | (0.256)          |
| Disabled x Older x After   | $0.005 \\ (0.127)$  | 0.808***<br>(0.070)                                    | 0.204 $(0.182)$     | 0.488 $(0.419)$   | 0.197**<br>(0.084)  | 0.010 $(0.239)$     | 0.581**<br>(0.243)  | 0.263*<br>(0.144)   | 0.452**<br>(0.201) | -0.028 $(0.305)$ |
| Disabled x After           | 0.013 $(0.094)$     | 0.102***<br>(0.035)                                    | 0.413***<br>(0.093) | -0.093<br>(0.291) | 0.133**<br>(0.053)  | -0.386**<br>(0.168) | -0.085 $(0.192)$    | -0.178**<br>(0.077) | 0.071 $(0.107)$    | 0.033 $(0.210)$  |
| Disabled x Younger         | 0.395***<br>(0.104) | 0.495***<br>(0.053)                                    | 0.377**<br>(0.142)  | 0.095 $(0.151)$   | 0.275***<br>(0.058) | 0.308**<br>(0.121)  | 0.560***<br>(0.125) | 0.122***<br>(0.021) | 0.162<br>(0.106)   | 0.175 $(0.143)$  |
| Disabled x Older           | -0.327***           | -0.812***  | -0.322*             | -0.382*           | -0.253***           | -0.352**            | -0.765***           | -0.160***           | -0.626***          | -0.234           |
|                            | (0.123)             | (0.075)  | (0.179)             | (0.203)           | (0.075)             | (0.138)             | (0.191)             | (0.035)             | (0.157)            | (0.199)          |
| Disabled                   | -0.632***           | -0.338***  | -0.682***           | -0.257*           | -0.234***           | -0.398***           | -0.436***           | -0.089***           | -0.281***          | -0.154           |
|                            | (0.086)             | (0.032)  | (0.115)             | (0.137)           | (0.049)             | (0.095)             | (0.118)             | (0.028)             | (0.094)            | (0.115)          |
| After                      | -0.102***           | 0.323***   | -0.101***           | 0.267***          | 0.412***            | 0.782***            | 1.045***            | 0.298***            | 0.525***           | 0.462***         |
|                            | (0.027)             | (0.027)  | (0.034)             | (0.031)           | (0.012)             | (0.034)             | (0.018)             | (0.033)             | (0.019)            | (0.024)          |
| Younger                    | -0.027**            | 0.276***   | 0.083***            | -0.061***         | -0.411***           | 0.106***            | 0.060***            | -0.021***           | -0.106***          | -0.131***        |
|                            | (0.012)             | (0.012)  | (0.010)             | (0.017)           | (0.007)             | (0.017)             | (0.010)             | (0.006)             | (0.014)            | (0.011)          |
| Older                      | 0.097***            | 0.027**  | -0.182***           | 0.061***          | 0.534***            | -0.081***           | 0.233***            | 0.149***            | 0.123***           | 0.189***         |
|                            | (0.010)             | (0.011)  | (0.013)             | (0.016)           | (0.008)             | (0.023)             | (0.017)             | (0.020)             | (0.015)            | (0.014)          |
| N                          | 267,179             | 1,763,484  | 244,488             | 89,613            | 661,051             | 311,317             | 49,602              | 969,746             | 284,400            | 345,548          |
| Adjusted R-squared         | 0.391               | 0.652  | 0.279               | 0.239             | 0.327               | 0.377               | 0.720               | 0.274               | 0.269              | 0.281            |
| Covariates                 | Yes                 | Yes  | Yes                 | Yes               | Yes                 | Yes                 | Yes                 | Yes                 | Yes                | Yes              |

**Notes**: Table shows DiD regression estimates of the effect of disability law on years of schooling of children with disability. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

### A.7 Additional robustness checks

Table A19: Ever enrolled in school (adults over 80)

|                         |                      | With d               | isability le         | gislation            |                      |                      | W/o dis              | sability leg         | islation             |                     |
|-------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|
|                         | RWA                  | UGA                  | SEN                  | SLE                  | TZA                  | BEN                  | BWA                  | ETH                  | GIN                  | MLI                 |
| Disabled x After        | -0.014 $(0.025)$     | -0.018<br>(0.013)    | 0.014<br>(0.011)     | 0.005 $(0.045)$      | 0.033***<br>(0.010)  | -0.001<br>(0.010)    | 0.064**<br>(0.024)   | -0.023***<br>(0.008) | 0.032 $(0.026)$      | -0.010<br>(0.010)   |
| Disabled                | -0.005 $(0.022)$     | -0.063***<br>(0.009) | 0.007 $(0.012)$      | -0.005 $(0.009)$     | -0.048***<br>(0.010) | -0.002 $(0.007)$     | -0.047***<br>(0.014) | -0.002<br>(0.003)    | -0.042*<br>(0.025)   | -0.011<br>(0.010)   |
| After                   | 0.026***<br>(0.010)  | 0.126***<br>(0.010)  | 0.185***<br>(0.017)  | 0.689***<br>(0.032)  | 0.045***<br>(0.004)  | 0.008**<br>(0.004)   | 0.010 $(0.015)$      | 0.024***<br>(0.003)  | -0.064***<br>(0.013) | -0.004<br>(0.003)   |
| Age                     | -0.003***<br>(0.001) | -0.002***<br>(0.000) | -0.001<br>(0.000)    | 0.000<br>(0.001)     | -0.004***<br>(0.000) | -0.000<br>(0.000)    | -0.011***<br>(0.002) | -0.000<br>(0.000)    | 0.000<br>(0.000)     | 0.001<br>(0.000)    |
| Male                    | 0.193***<br>(0.010)  | 0.226***<br>(0.007)  | 0.206***<br>(0.021)  | 0.064***<br>(0.007)  | 0.236***<br>(0.008)  | 0.085***<br>(0.014)  | -0.003<br>(0.034)    | 0.037***<br>(0.005)  | 0.058***<br>(0.008)  | 0.046***<br>(0.013) |
| No of siblings 5-17     | -0.029***<br>(0.003) | -0.009***<br>(0.002) | -0.001<br>(0.001)    | -0.004***<br>(0.001) | -0.014***<br>(0.001) | -0.002***<br>(0.001) | -0.017***<br>(0.002) | -0.001<br>(0.001)    | -0.001<br>(0.001)    | -0.000<br>(0.001)   |
| HH head educ.           | 0.090***<br>(0.006)  | 0.051***<br>(0.002)  | 0.016***<br>(0.003)  | 0.025***<br>(0.002)  | 0.054***<br>(0.001)  | 0.027***<br>(0.001)  | 0.049***<br>(0.003)  | 0.024***<br>(0.003)  | 0.021***<br>(0.001)  | 0.024***<br>(0.002) |
| Poorest 40%             | 0.001 $(0.007)$      | -0.010<br>(0.007)    | -0.040***<br>(0.010) | -0.012*<br>(0.007)   | -0.030***<br>(0.004) | -0.015***<br>(0.004) | -0.114***<br>(0.016) | -0.014***<br>(0.003) |                      | -0.004<br>(0.004)   |
| Constant                | 0.261***<br>(0.045)  | 0.308***<br>(0.040)  | 0.013 $(0.038)$      | 0.022 $(0.052)$      | 0.373***<br>(0.027)  | 0.004<br>(0.020)     | 1.231***<br>(0.147)  | 0.026<br>(0.016)     | 0.038 $(0.034)$      | -0.056<br>(0.039)   |
| N<br>Adjusted R-squared | 11,102<br>0.371      | 41,306<br>0.270      | 15,502<br>0.213      | 6,003<br>0.633       | 76,899<br>0.308      | 19,138<br>0.217      | 4,740<br>0.250       | 38,604<br>0.072      | 12,193<br>0.198      | 12,914<br>0.141     |

**Notes**: Table shows DiD regression estimates for the effect of disability law on ever enrolling in school of adults with disability, over 80 years old. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A20: Currently attending school (adults over 80)

|                         |                      | With      | disability l        | legislation          |                      |                      | W/o dis             | sability leg         | islation            |                     |
|-------------------------|----------------------|-----------|---------------------|----------------------|----------------------|----------------------|---------------------|----------------------|---------------------|---------------------|
|                         | RWA                  | UGA       | SEN                 | SLE                  | TZA                  | BEN                  | BWA                 | ETH                  | GIN                 | MLI                 |
| Disabled x After        | -0.006**<br>(0.003)  | 0.000     | -0.000<br>(0.001)   | -0.059***<br>(0.011) | 0.004***<br>(0.000)  | -0.004***<br>(0.001) | -0.006**<br>(0.003) | -0.011***<br>(0.004) | -0.003<br>(0.004)   | 0.012*<br>(0.007)   |
| Disabled                | -0.000<br>(0.001)    | 0.000 (.) | -0.000**<br>(0.000) | -0.003***<br>(0.001) | -0.003***<br>(0.000) | -0.000<br>(0.000)    | 0.004 $(0.002)$     | -0.001<br>(0.001)    | -0.002<br>(0.002)   | -0.011*<br>(0.006)  |
| After                   | 0.010***<br>(0.001)  | 0.000 (.) | 0.002***<br>(0.001) | 0.059***<br>(0.012)  | -0.004***<br>(0.000) | 0.004***<br>(0.001)  | 0.004**<br>(0.001)  | 0.009***<br>(0.002)  | 0.009***<br>(0.002) | -0.013*<br>(0.007)  |
| Age                     | 0.001***<br>(0.000)  | 0.000 (.) | 0.000**<br>(0.000)  | -0.001***<br>(0.000) | 0.000*<br>(0.000)    | 0.000***<br>(0.000)  | -0.000<br>(0.000)   | 0.000<br>(0.000)     | 0.000*<br>(0.000)   | 0.000 $(0.000)$     |
| Male                    | 0.002 $(0.001)$      | 0.000 (.) | 0.002***<br>(0.000) | 0.002 $(0.002)$      | 0.000<br>(0.000)     | 0.002*<br>(0.001)    | -0.002<br>(0.002)   | 0.006***<br>(0.001)  | 0.003*<br>(0.002)   | 0.002 $(0.002)$     |
| No of siblings 5-17     | 0.002**<br>(0.001)   | 0.000 (.) | 0.000 $(0.000)$     | 0.001<br>(0.001)     | -0.000<br>(0.000)    | 0.000<br>(0.000)     | -0.000<br>(0.000)   | 0.000 $(0.000)$      | -0.000<br>(0.000)   | -0.000<br>(0.000)   |
| HH head educ.           | 0.003***<br>(0.001)  | 0.000 (.) | 0.000 $(0.000)$     | 0.001<br>(0.001)     | 0.000***<br>(0.000)  | 0.001***<br>(0.000)  | 0.000<br>(0.000)    | 0.004***<br>(0.001)  | 0.001**<br>(0.000)  | 0.002***<br>(0.001) |
| Poorest 40%             | -0.002<br>(0.002)    | 0.000 (.) | 0.001<br>(0.001)    | 0.002 $(0.003)$      | -0.000<br>(0.000)    | $0.000 \\ (0.001)$   | -0.002<br>(0.002)   | -0.004***<br>(0.001) |                     | $0.000 \\ (0.001)$  |
| Constant                | -0.066***<br>(0.017) | 0.000     | -0.017**<br>(0.007) | 0.052***<br>(0.015)  | -0.002<br>(0.003)    | -0.027***<br>(0.006) | 0.012<br>(0.018)    | -0.005<br>(0.007)    | -0.026**<br>(0.013) | 0.005 $(0.008)$     |
| N<br>Adjusted R-squared | 11,079<br>0.011      | 41,306    | 15,502<br>0.002     | 6,003<br>0.047       | 76,899<br>0.004      | 19,138<br>0.009      | 4,740<br>0.001      | 38,604<br>0.010      | 11,934<br>0.012     | 12,970<br>0.026     |

**Notes**: Table shows DiD regression estimates of the effect of disability law on current school attendance of adults with disability, over 80 years old. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A21: Years of schooling (adults over 80)

|                         |                      | With d               | isability le         | gislation            |                      |                      | W/o di               | sability leg         | islation            |                      |
|-------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|
|                         | RWA                  | UGA                  | SEN                  | SLE                  | TZA                  | BEN                  | BWA                  | ETH                  | GIN                 | MLI                  |
| Disabled x After        | -0.030<br>(0.110)    | -0.253***<br>(0.065) | -0.150<br>(0.114)    | -0.551<br>(0.646)    | 0.080*<br>(0.046)    | 0.011<br>(0.082)     | 0.129*<br>(0.071)    | -0.078**<br>(0.035)  | 0.027 $(0.071)$     | -0.096*<br>(0.057)   |
| Disabled                | 0.016 $(0.093)$      | -0.133***<br>(0.043) | 0.082 $(0.109)$      | -0.157**<br>(0.062)  | -0.220***<br>(0.043) | -0.009<br>(0.038)    | -0.277***<br>(0.058) | -0.015*<br>(0.009)   | -0.093**<br>(0.043) | -0.033 $(0.043)$     |
| After                   | 0.073**<br>(0.034)   | 0.638***<br>(0.058)  | 0.040 $(0.035)$      | 4.264***<br>(0.284)  | 0.337***<br>(0.022)  | 0.121***<br>(0.025)  | 0.289***<br>(0.065)  | 0.104***<br>(0.013)  | 0.004 $(0.028)$     | -0.011<br>(0.015)    |
| Age                     | -0.010***<br>(0.002) | -0.009***<br>(0.003) | -0.001<br>(0.003)    | -0.008<br>(0.006)    | -0.020***<br>(0.002) | 0.001 $(0.002)$      | -0.046***<br>(0.007) | -0.002**<br>(0.001)  | -0.005**<br>(0.002) | 0.003*<br>(0.002)    |
| Male                    | 0.702***<br>(0.051)  | 1.259***<br>(0.036)  | 0.833***<br>(0.251)  | 0.629***<br>(0.064)  | 1.169***<br>(0.041)  | 0.573***<br>(0.138)  | 0.277***<br>(0.091)  | 0.124***<br>(0.021)  | 0.405***<br>(0.072) | 0.344***<br>(0.114)  |
| No of siblings 5-17     | -0.138***<br>(0.013) | -0.108***<br>(0.008) | -0.025***<br>(0.008) | -0.061***<br>(0.018) | -0.085***<br>(0.005) | -0.021***<br>(0.006) | -0.094***<br>(0.014) | -0.013***<br>(0.002) | -0.007*<br>(0.004)  | -0.017***<br>(0.005) |
| HH head educ.           | 0.466***<br>(0.030)  | 0.420***<br>(0.012)  | 0.236***<br>(0.050)  | 0.355***<br>(0.025)  | 0.326***<br>(0.009)  | 0.234***<br>(0.033)  | 0.344***<br>(0.025)  | 0.137***<br>(0.021)  | 0.162***<br>(0.013) | 0.220***<br>(0.020)  |
| Poorest 40%             | 0.002 $(0.026)$      | -0.074**<br>(0.031)  | -0.050 $(0.056)$     | -0.061<br>(0.046)    | -0.142***<br>(0.017) | -0.041 $(0.033)$     | -0.242**<br>(0.089)  | -0.013<br>(0.009)    |                     | -0.010<br>(0.018)    |
| Constant                | 0.816***<br>(0.204)  | 0.712***<br>(0.244)  | -0.042<br>(0.172)    | 0.575 $(0.495)$      | 1.468***<br>(0.126)  | -0.222<br>(0.149)    | 4.310***<br>(0.611)  | 0.092 $(0.062)$      | 0.298*<br>(0.178)   | -0.371**<br>(0.178)  |
| N<br>Adjusted R-squared | 11,156<br>0.462      | 41,117<br>0.395      | 15,502<br>0.274      | 5,966<br>0.653       | 76,887<br>0.340      | 19,138<br>0.282      | 4,728<br>0.355       | 38,690<br>0.127      | 16,630<br>0.182     | 12,844<br>0.220      |

**Notes**: Table shows DiD regression estimates of the effect of disability law on years of schooling of adults with disability, over 80 years old. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: p<0.1; \*\*p<0.05; \*\*\*p<0.01

A.7.1 Regression estimates with and without wealth dummy

Table A22: Years of schooling (with wealth dummy)

|                         |                  | With dis            | ability leg         | gislation       |                  |                      | W/o dis         | sability leg         | islation           |                  |
|-------------------------|------------------|---------------------|---------------------|-----------------|------------------|----------------------|-----------------|----------------------|--------------------|------------------|
|                         | RWA              | UGA                 | SEN                 | SLE             | TZA              | BEN                  | BWA             | ETH                  | GIN                | MLI              |
| Disabled x After        | 0.029<br>(0.073) | 0.193***<br>(0.030) | 0.458***<br>(0.094) |                 |                  | -0.416***<br>(0.111) |                 | -0.171***<br>(0.038) | 0.132**<br>(0.066) |                  |
| N<br>Adjusted R-squared | ,                | 1,763,484 $0.651$   | 244,488<br>0.278    | 89,613<br>0.239 | 661,051<br>0.326 | 311,317<br>0.376     | 49,602<br>0.718 | 969,746<br>0.272     | ,                  | 345,548<br>0.280 |

**Notes**: Table shows DiD regression estimates of the effect of disability law on years of schooling of children with disability. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A23: Years of schooling (without wealth dummy)

|                         |                  | With dis            | sability leg        | gislation        |                  |                      | W/o dis         | ability leg          | islation           |                  |
|-------------------------|------------------|---------------------|---------------------|------------------|------------------|----------------------|-----------------|----------------------|--------------------|------------------|
|                         | RWA              | UGA                 | SEN                 | SLE              | TZA              | BEN                  | BWA             | ETH                  | GIN                | MLI              |
| Disabled x After        | 0.041<br>(0.071) | 0.245***<br>(0.027) | 0.456***<br>(0.098) | 0.086<br>(0.161) |                  | -0.442***<br>(0.110) |                 | -0.179***<br>(0.038) | 0.132**<br>(0.066) |                  |
| N<br>Adjusted R-squared | ,                | 1,955,817<br>0.651  | 253,067<br>0.267    | 101,293<br>0.238 | 698,299<br>0.311 | 311,317<br>0.361     | 49,881<br>0.713 | 1,084,104<br>0.266   | 284,400<br>0.269   | 364,195<br>0.272 |

**Notes:** Table shows DiD regression estimates of the effect of disability law on years of schooling of children with disability. Countries without legislation are included as a robustness check. Includes District Fixed Effects. Robust standard errors in parenthesis with the following significance levels: p<0.1; \*\*p<0.05; \*\*\*p<0.01