

# Inter-Generational Benefits of Improving Access to Justice for Women: Evidence from Peru<sup>\*</sup>

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## Abstract

Domestic violence is a major concern in developing countries, with important social, economic and health consequences. However, institutions do not usually address the problems facing women or ethnic and religious minorities. For example, the police do very little to stop domestic violence in rural areas of developing countries. This paper exploits the introduction of *women's justice centers* (WJCs) in Peru to provide causal estimates on the effects of improving access to justice for women and children. These centers offer a new integrated public service model for women by including medical, psychological and legal support in cases of violence against women. Our empirical approach uses a difference in difference estimation exploiting variation over time and space in the opening of WJC together with province-by-year fixed effects. Exploiting administrative data from health providers, district attorney offices and schools, we find that after the opening of these centers, there are important improvements on women's welfare: a large reduction in domestic violence, femicides and female hospitalizations for assault. Moreover, using geo-coded household surveys we find evidence that the existence of these services improves women's health and increases women's threat points and, therefore, lead to household decisions that are more aligned with their interests. Using administrative data on the universe of schools, we find large gains on human capital for their children: affected children are more likely to enroll, attend school and have better grades in national exams, instead of working for the family. In sum, the evidence in this paper shows that providing access to justice for women can be a powerful tool to reduce domestic violence and increase education of children, suggesting a positive inter-generational benefit.

JEL Classification: J12, J16, I25, K38

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# 1 Introduction

An accessible and fair justice system is thought to be important for economic development, so much so that it was recently added as a United Nations Sustainable Development Goal.<sup>1</sup> Access to justice may be particularly important for vulnerable groups in developing countries, since these groups are often unable to legally challenge violence and discrimination. In particular, women are often unable to seek justice for domestic violence or receive equitable treatment during a divorce (Duflo, 2012; Revilla, 1999). While research in this area has mainly focused on addressing these issues through economically empowering women (e.g. Bobonis, González-Brenes and Castro, 2013; Angelucci, 2008; Aizer, 2010), there has been very little evidence on the impact of improving access to justice for women in developing countries. Justice for women is also important for understanding educational choices and the persistent gender gap across generations. In addition, understanding the mechanisms through which better access to justice for women can improve outcomes has implications for household bargaining more generally.

Domestic violence or intimate partner violence (IPV) remains a worldwide pressing social problem, as every year one-third of women (30%) suffer physical and/or sexual intimate partner violence (WHO, 2013).<sup>2</sup> To address this issue, many developing countries have enacted more comprehensive legislations to reduce violence against women, but these legal reforms have done very little to curb its persistence since they lack a clear legal framework and do not address institutional discrimination based on class, race and gender. For example, when women want to file a domestic violence complaint, the regular police generally ignores them and sends them home saying that “domestic disputes” are not a police matter. For this reason, in many cases women do not trust these institutions enough to report these issues (e.g. Jubb et al., 2010; Boesten, 2012).<sup>3</sup>

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<sup>1</sup>The 2030 Agenda for Sustainable Development is a set of 17 “Global Goals” with 169 targets between them. [http://www.undp.org/content/dam/undp/library/corporate/brochure/SDGs\\_Booklet\\_Web\\_En.pdf](http://www.undp.org/content/dam/undp/library/corporate/brochure/SDGs_Booklet_Web_En.pdf)

<sup>2</sup>Women who suffer from abusive in the household are more likely to report physical, mental, sexual and reproductive health problems (Campbell, 2002). Domestic violence may also limit their ability to take care of their children. An increasing literature on domestic violence shows that children exposed to domestic violence are associated with a number of emotional and behavioral problems (e.g. Pollak, 2004; Carlson, 2000; Huth-Bocks, Levendosky and Semel, 2001; Koenen et al., 2003; Carrell and Hoekstra, 2010).

<sup>3</sup>Furthermore, in cases of family violence in rural Peruvian communities, women are always assumed to have a certain level of blame in a conflict (Revilla, 1999). According to Franco and González (2009), the community justice based on customs presents many weaknesses when it tries to address the needs of women and children who are victims of violence. They also find that such customs display cultural patterns based on the subordination and discrimination of women.

As a result, during the same period, Peru, Mexico, Brazil, El Salvador and Ecuador, among others have launched or expanded a special network of *Women's Police Stations or Women's Justice Centers*. The WJC centers are specialized police or judicial institutions whose main purpose is to improve access to justice to victims of domestic violence by providing legal, psychological and medical support. Even though WJC centers are one such intervention that has been gaining popularity, little attention has been paid on to the actual effectiveness of such centers.

In this paper, we examine how introducing WJCs across all over Peru affects women's status and their children. Our findings reveal that providing better access to justice for women can reduce domestic violence, femicides and female hospitalizations for assault and have positive spillovers on children's human capital by improving women's health. After the opening of these centers, femicides and hospitalizations for assault declined by 2-7% and children improved their school attendance by 2%. Moreover, larger benefits are seen in girls at school. Finally, we also find some evidence that after these centers opened, women resort more to formal institutions in case of violence, suggesting an increase in trust on state institutions which might lead also to an improvement in women's intra-household bargaining power.

Our interest in Peru, as opposed to a different country which has implemented a similar intervention, is particularly due to the fact that during the last decade the level of physical and/or sexual intimate partner violence has been among the highest in the world and at the same time women's bargaining power is quite weak (e.g. [Garcia-Moreno et al., 2006](#); [Bott et al., 2012](#)). As a response to this endemic problem in the country, the *Peruvian Ministry for Women and Vulnerable Populations* decided to create in 1999 the Women's Justice Centers as part of the National Program against Sexual and Family Violence. During the period 1999-2014, the number of WJC centers has grown from 13 in the first year to 226 by the end of 2014, covering 100% of the 24 regions of Peru and 96% of the provinces.

To identify the casual effect, we use a difference in-differences strategy, which exploits variation created by the differential timing in the opening of the WJC centers and also the spatial variation in the exposure of a school/household to a WJC center, together with province-by-year fixed effects. We geo-match schools and households with detailed data on WJC's locations and founding years in order to construct two different measures of exposure to the WJC center: presence of WJC center within 1 kilometer (km) Euclidean buffer distance from the school/household

and presence of a WJC center in school's/household's district.

This empirical strategy allows us to compare changes in outcomes of schools and households (children and women) already residing in the proximity of a WJC center ("treatment schools/households") to those not yet reached by the program ("control schools/ household"). Using the panel nature of the school level data, we control for school fixed-effects and initial school characteristics in order to analyze how enrollment changes within a same school and among initially-similar treatment and control schools upon the introduction of a WJC center in the proximity of the school.

This paper benefits from multiple different types of geo-coded datasets: school level data, individual and household-level data, administrative data on WJC centers, femicides and female hospitalizations for assault, that allow us to analyze the effects at a very disaggregated level. First, our school level data comes from the *Peruvian School Census*, which is a large geo-coded panel dataset on primary and secondary school enrollment that covers the universe of schools in Peru during the period 1998 to 2014. Second, our individual and household-level data comes from the *Peruvian Demographic Health Survey*, which is a nationally representative cross-sectional survey that contains rich information on demographic and socioeconomic characteristics of the household members, as well as a detailed domestic violence module for married or cohabiting women. The Peruvian DHS covers the period 2000-2014 and is geo-coded at the cluster level. Third, the administrative data on WJC centers comes from the *Peruvian Ministry for Women and Vulnerable Populations* (MIMP) and consists of a geo-coded directory of WJC centers and their founding dates across all over Peru from 1999 till 2014. Finally, data on femicides and female hospitalizations for assault at the district level come from administrative records of the *Peruvian Crime Observatory at the Ministry of Public Affairs* and the *Ministry of Health*, respectively.

Our main finding is that children's human capital is affected positively by the introduction of the WJC centers. We first show that the introduction of a WJC center within 1km of a school is associated with an increase between 2% and 3% in the number of children enrolled in primary school in the year after the center introduction. We also find evidence that after the opening of a WJC center, children in primary and secondary school living in household's located near a WJC center are significantly more likely to attend school, have better national test scores, more likely to pass the grade and they are also less likely to drop out of school. More specifically,

the probability that children reached by the WJC centers attended school and passed a grade increases by approximately 2 percentage points, while drop out decreases by 1.8 percentage points. These effects are localized within a few kilometers and they are mostly driven by girls living in urban areas. Consistent with the results on education, we also find that girls are less likely to be working after the opening of the WJC. These results are also robust to including district specific trends and to limiting the sample to urban clusters and districts which ever have a WJC center, and to the use of different datasets that measure the same outcomes.

The main threat to our identification strategy is time-varying unobservables that are correlated to both the timing of the WJC center introduction and changes in education outcomes. To ensure that our results are not driven by selection or time-varying unobservables, we perform several falsification exercises and robustness checks. First, in order to control for the nonrandom placement of the WJC centers, we also include a province-by-year fixed effect which controls for any characteristics that may vary at the province and year level. By using province-by-year fixed effects, our identification assumption is that treatment schools/households would otherwise have changed similarly, on average, to control schools/households within their same province.

Second, we focus our analysis in the middle of the rollout period for which identifying assumptions are likely to hold. In particular, we show that schools/households reached by the WJC centers from 2006 till 2014 had similar pre-program trends. Thirdly, we show that WJC center placement was not anticipated by changes in schooling.<sup>4</sup> Lastly, we limit the samples to areas most comparable to the those with WJC center presence: urban schools and urban clusters of households, since the WJC centers were more likely to be located in more densely populated areas. We further examine the results by limiting the sample to districts which ever had a WJC center.

The next focus of this paper is to pin down the mechanisms driving these results. We propose two potential mechanisms. Firstly, the introduction of WJC centers may have contributed to

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<sup>4</sup>A central issue in our analysis is the fact that WJC centers are not placed randomly. Conversations with policymakers and WJC center managers suggest they choose where to locate primarily based on population density, the level of infrastructure and proximity to several institutions, but there was no mention of locating based on anticipated increases in schooling or previous years schooling increases. We use the panel nature of the school database to analyze the impact of WJC centers introduced in future years on current enrollment. If WJC center managers are targeting areas which have more rapidly increasing schooling, future WJC centers should also correlate with changes in schooling. We do not find evidence for an impact of future WJC centers and the inclusion of future WJC centers does not affect our estimate of the impact of current WJC center. This placebo test suggests that WJC center placement was not anticipated by changes in schooling. Moreover, we also address another concern - that the results reflect changes in population after a WJC center opening - and argue that this issue does not drive our results after controlling for total district population.

break the silence regarding violence against women and turning it into a public issue, with the intention of improving access to justice. By making domestic violence more visible, these specialized institutions may be changing the discriminatory social values and power structures that underlie violence against women. Secondly, the presence of WJC centers may affect the incidence of domestic violence and consequently children’s well-being in the household, either by facilitating the disintegration of abusive relationships or by making the threat of incurring police involvement, criminal penalties or issuing restraining orders towards the potential offender more credible. Both mechanisms lead to the conclusion that WJC’s intervention in households with abuse may change the behavior of offenders and victims by improving the situation of the woman within the household and their ability to care for their children. Several economic theories of household bargaining power suggest that policies aimed at affecting spouse’s outside option from a marriage may also affect within-household distribution through changes in their relative bargaining positions (McElroy and Horney, 1981; Manser and Brown, 1980). For instance, economic empowerment of women is often considered a major tool in the fight against intimate partner violence, even though its impact might be ambiguous.<sup>5</sup> A possible explanation for this is the fact that women in developing countries do not generally count with an effective judicial protection or a credible threat in cases of domestic violence. In this study we analyze an unexplored empowerment channel for women which is better access to justice.

Consistent with the domestic violence mechanism, we find that women who live within 1km of a WJC center are significantly less likely to suffer from physical and emotional violence by their spouse. At the same time, the presence of a WJC center in the district can be associated with a suggestive reduction in the number of femicides and female hospitalizations for assault. We also find suggestive evidence of an improvement in the bargaining power of women in the household. In particular, we find that women living near a WJC center are more likely to make joint decision-making with their husband, less likely to earn less than their husband and more likely to earn as much as their husband. Moreover, we find that these women also experience

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<sup>5</sup>On the one hand, employment opportunities such as conditional cash transfers or access to welfare services may empower women by increasing their resources within the household; improve their outside options and bargaining status in their relationships; and decrease their exposure to violence (Farmer and Tiefenthaler, 1996; Stevenson and Wolfers, 2006; Aizer, 2010; Hidrobo and Fernald, 2013). On the other hand, an increase in the resources available to women may strengthen the incentives of men to use violence or threats of violence in order to control these newly obtained resources or to regain decision-making power within the household. As a result, women may become more vulnerable to mistreatment (Bobonis, González-Brenes and Castro, 2013; Eswaran and Malhotra, 2011; Bloch, Rao and Desai, 2004).

better health: they are more likely to have better weight.

These results are also consistent with a human capital model in which parents maximize earnings and the education of their children. When domestic violence is prevalent, women are more likely to be sick and are not able to do the domestic work and take care of their children. As girls are substitute of mothers in domestic chores, the opportunity cost of schooling is large and thus, they are more likely to work at home when the mother is exposed to domestic violence.

To the best of our knowledge, this is the first quantitative analysis that attempts to explore the impact of an unexamined dimension of institutional intervention which provides better access to justice for women, on the prevalence of domestic violence, femicides and its spillover effects on children’s human capital. This study does not only provide evidence of the effectiveness of an important component of Peru’s public policy aimed at curbing domestic violence, but it also contributes to the literature on gender development by providing a new insight on women’s empowerment in developing countries and its indirect effect on children’s education outcomes.

This paper draws upon research in the intersection of children’s human capital, domestic violence, gender and development. First, it relates to the literature on effective policies at increasing school enrollment in the developing countries (e.g. [Duflo, Hanna and Rya, 2012](#); [Kremer et al., 2005](#); [Kremer, 2003](#); [Duflo, 2000](#)). Second, it provides another factor that could reduce gender gaps. While most of the focus has been on the economic development and gender quotas, here we provide evidence that improving access to justice by improving women’s health and empowerment can be an effective tool to increase girls education.

The remainder of this paper is organized as follows. In [Section 2](#) we discuss the previous literature on domestic violence in more depth. [Section 3](#) presents a brief background on the prevalence of domestic violence in Peru and on the WJC center intervention. [Section 4](#) describes the data. [Section 5](#) presents the empirical strategy. [Section 6](#) presents the main results. [Section 7](#) investigates the channels through which WJC center introduction affects schooling. [Section 8](#) provides supporting evidence consistent with the identification assumptions. [Section 9](#) concludes.

## 2 Previous Literature

There are two bodies of literature on domestic violence. The first one focuses on the risk factors for domestic violence, while the second one focuses on the effects of intimate partner violence on women’s outcomes, including those for children living in households with domestic

violence. While most fundamental studies on the causes and effects of domestic violence center in developed countries, especially United States, a new wave of literature has expanded the scope of study to developing countries due to this form of violence's perceived obstacle to the broader development agenda.

There is a growing literature on causal channels that impinge on the prevalence of domestic violence. One type of this literature focuses on the intra-household bargaining channels that affect domestic violence through improvements in women's outside options. For example, [Aizer \(2011\)](#) shows that a decline in the gender wage gap reduces violence against women in California. The author's interpretation is that a relative improvement in female income reduces her exposure to spousal violence by increasing her bargaining power. [Stevenson and Wolfers \(2006\)](#) find that the adoption of unilateral divorce laws in the United States resulted into a drop in female homicide and domestic violence. In a more recent study, [Brassiolo \(2016\)](#) finds a decline in spousal conflict and in extreme partner violence in response to introducing less stringent divorce legislation in Spain. Using victimization data from the US, [Miller and Segal \(2016\)](#) find that as female representation increases among police officers in an area, violent crimes against women in that area, and especially domestic violence, are reported to the police at significantly higher rates. They also show that increases in female officer representation are followed by significant declines in intimate partner homicide rates and in rates of repeated domestic abuse.

Another strand of this literature focuses on the heterogeneous effects of conditional cash transfer programs on domestic violence. [Bobonis, González-Brenes and Castro \(2013\)](#) analyze the effect of the Mexican program *Oportunidades* on domestic violence and find that beneficiary women are less likely to be victims of physical violence but are more likely to receive threats of violence. Using the same randomized evaluation, [Angelucci \(2008\)](#) finds that among households that received small transfers, alcohol-related domestic violence declined, whereas in households that received large transfers, the level of spousal abuse from husbands with particularly low levels of education increased.

In addition, recent research has observed that in many contexts, increased autonomy and women's entry into the formal labor market is often associated with a higher likelihood of experiencing violence in Colombia ([Friedemann-Sánchez and Lovatón, 2012](#)), Bangladesh ([Heath, 2012](#); [Rahman, Hoque and Makinoda, 2011](#)) and India ([Eswaran and Malhotra, 2011](#)). Indeed, the paid employment or the non-labor income of a female intimate partner may be threatening



for some men, especially those who are unemployed. Abusive partners may perceive a loss of status and power and use violence or coercion to regain control.

However, less literature has been written on the consequences of intimate partner violence (IPV) on children's outcomes, especially in developing countries. Previous research has shown that children exposed to domestic violence are associated with a number of health, emotional and behavioural problems including, low birthweight, aggressive behaviour, bullying, depression, violence in adulthood and also diminishing academic performance.<sup>6</sup> With respect to children's education outcomes, studies conducted in the United States have found lower reading levels among teenagers who have been exposed to domestic violence ([Thompson and Whimper, 2010](#)), lower academic achievement in math and reading for children in elementary and middle school ([Kiesel, Piescher and Edleson, 2011](#)), lower scores on standardized tests for children ages 6 to 17 - especially for girls and children younger than 12 years old ([Peek-Asa et al., 2007](#))- and more grade repetition and truancy among children 6 to 15 years old ([Emery, 2011](#)). Moreover, [Carrell and Hoekstra \(2010\)](#) show that exposure to school peers from troubled families significantly decreases reading and math test scores and increases misbehaviour in the classroom.

Among the scattering studies conducted in developing countries, [Jayasinghe, Jayawardena and Perera \(2009\)](#) show that children who were directly or indirectly exposed to domestic violence at home had poor school attendance and lower academic achievement on average. Similarly, [Durand et al. \(2011\)](#) find that Brazilian children 5 to 12 years old who lived with mothers exposed to psychological, physical and sexual domestic violence were more likely to be among those dropping out of school or failing a school year.

What is perhaps most striking about this literature is that rigorous studies attempting to evaluate the effectiveness of various intervention strategies aimed at curbing domestic violence are quite scarce. This is mainly due to the difficulties and ethical considerations on collecting reliable data on domestic violence. Another difficulty is dealing with the endogeneity problem. Randomized experiments, for instance, are extremely rare. In addition, even though WJC centers are one such intervention that has been gaining popularity, little attention has been paid on to the actual effectiveness of such centers on eradicating violence against women and, particularly, there is very little evidence on the extent of spillovers on their children. Two

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<sup>6</sup>See [Edleson \(1999\)](#); [Wolfe et al. \(2003\)](#); [Pollak \(2004\)](#); [Fantuzzo et al. \(1997\)](#); [Koenen et al. \(2003\)](#); [Holt, Buckley and Whelan \(2008\)](#); [Baldry \(2003\)](#); [Carlson \(2000\)](#); [Currie \(2006\)](#); [Black, Sussman and Unger \(2010\)](#); [Aizer \(2011\)](#).

exceptions are the studies of [Agüero \(2013\)](#) and [Perova and Reynolds \(2017\)](#), which exploit the variation stemming from the gradual municipality/district -level rollout of the WPS/WJC centers in Peru and Brazil, respectively. We complement these papers by providing causal estimates at a more disaggregated level on wide number of outcomes that allow us to disentangle mechanisms and study spillover effects on children.

To sum up, the research to date has outlined much of the domestic violence problem and provided some fundamental understanding of its causes and consequences, but has left policy makers with little on which to build effective interventions. In this light, our paper contributes to the literature on domestic violence by focusing on an unexplored empowerment channel for women which is better access to justice and the role of women’s justice centers (WJC) in breaking the cycle of violence and generating a spillover effect on their children’s outcomes.

## 3 Background

### 3.1 Domestic Violence in Peru

Domestic violence or intimate partner violence (IPV) is one of the most pressing social problems in Latin America and the Caribbean. Even though the region has received much attention on conflict, crime, political and economic instability, it is easily overlooked that violence against women is among the most pervasive types of violence in the region ([Fregoso and Bejarano, 2009](#); [Heinemann and Verner, 2006](#); [Londoño et al., 2000](#)).

Among the Latin American countries, Peru has gained a considerable amount of attention in recent years, largely due to the high prevalence and severity of domestic violence in this country. According to a study carried out in 10 countries by the World Health Organization in 2006, the prevalence of physical violence by a male partner ranges from 13% in Japan’s urban regions to 61% in rural areas of Peru and 49% in urban areas of Peru ([Garcia-Moreno et al., 2006](#); [Morrison, Orlando and Pizzolitto, 2007](#)). [Flake and Forste \(2006\)](#) study the relationship between household characteristics and the likelihood of experiencing domestic violence in Colombia, Dominican Republic, Haiti, Nicaragua and Peru. They find that although the prevalence of domestic violence is high in all five countries, Peru had the highest percentage of instances at 38.9% followed by Nicaragua (26.1%), Dominican Republic (22.6%), Colombia (19%) and then Haiti (15.7%). Data collected by *Instituto Nacional de Estadística e Informática* (INEI) through

the Demographic Health Surveys have found that although the prevalence of violence (physical and/or sexual) affecting women has declined from 41.2% to 32.6% from 2000 to 2015, it still remains quite high (INEI, 2001, 2015).<sup>7</sup> All this evidence suggests that Peru is very high on the world ranking of registered cases of domestic violence and among the leaders in Latin America in terms of prevalence of violence against women.

While the majority of IPV is perpetrated within the domestic sphere, Peru's institutions also have a reputation for gender-based violence, including sexual violence. For many decades, women in Peru have been subject to abuse- even by the one entity supposed to protect them: the state. For instance, in the 1990s and early 2000s, Peru witnessed one of the most heinous violations of women's rights in recent history: under the administration of Alberto Fujimori, thousands of women were forcibly sterilized in an attempt to prevent overpopulation and poverty. The state is also complicit in institutional violence against women, ranging from insults to injury in its hospitals, health centers and schools (Boesten, 2012).

Despite legislative progress in identifying and addressing the problem, the legal system has constantly been characterized as ill-equipped to efficiently process complaints. In the early 1990s, Peru was one of the first countries in the region to develop legislation and policy to address violence against women. The Law for Protection from Family Violence was first adopted in 1993 and strengthened in 1997, attempting to codify IPV as a criminal offence while producing a distinct and expedited procedure for victims to lodge complaints. However, these legal reforms in the area of violence against women lacked a clear legal framework and have done very little to curb its persistence. In short, "many women do not bother to file complaints because the legal system is too slow to act" (UNHCR, 2010).

A major contributor to the persistence of domestic violence in Peru is a deeply embedded inequality of gender roles and status, which is usually represented through the notion of *machismo*. Machismo defines gendered behaviors, which makes Peruvian families more susceptible to domestic violence, since women are expected to accomplish familial obligations unconditionally within a patriarchal family system. In addition, the high rates of intimate partner violence might also be explained through dynamics of historical and cultural factors which are based on the subordination and discrimination of women (Mitchell, 2013). Within this context, the persistence of violence against women is a clear sign of women disempowerment, which impinges

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<sup>7</sup>See Figure 4

on women's autonomy within the household.

### 3.2 *Centros de Emergencia para Mujeres (WJC) Program*

In the last 15 years, there have been significant efforts to prevent, punish and eradicate violence, particularly in the case of violence against women. As a response to one of the highest rates of domestic violence in Latin America, the Peruvian Ministry for Women and Vulnerable Populations decided to create in 1999 the women's justice centers (*Centros de Emergencia para Mujeres*) as part of the National Program against Sexual and Family Violence.<sup>8</sup>

The *Centros de Emergencia para Mujeres (WJC)* are public centers which offer specialised attention to victims of domestic and sexual violence, from an inter-disciplinary and integral approach that includes legal, social and psychological dimensions. This program is aimed at strengthening the capacities of the police, prosecutors and judicial officers to detect the risk of domestic violence and also assist the victims. Aside from that, their aim is also to undertake awareness-raising and rehabilitation programs for the victims of domestic violence. In this regard, the WJC centers have put in practice courses for training justice promoters '*facilitadoras en accion*', which are volunteer women involved in activities and campaigns that raise awareness about the problem of domestic violence (MIMDES, 2007).<sup>9</sup>

Basically, the idea of these centers is to centralize the different stages that a victim of domestic violence has to go through - police station, attorney's office and medical doctor- in order to reduce as much as possible the time dedicated to issue the complaint and to follow the legal procedure in the corresponding court of justice. The service in these centers is provided free of charge and is staffed by representatives of various government institutions such as police officers, prosecutors, counsellors, psychologists and public welfare agents in order to help the victims of domestic abuse.

The first women's justice center was located in the District of Lima in 1999. In order to provide more protection and access to justice to more victims of domestic violence, every year more centers have been implemented at the national level. During the period 1999-2014, the

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<sup>8</sup>The Peruvian Ministry for Women and Vulnerable Populations, known as *Ministerio de la Mujer y Poblaciones Vulnerables* - (MIMP) used to be called as Ministry for Women and Social Development (*Ministerio de la Mujer y Desarrollo Social* - MIMDES) when the WJC center program was rollout in 1999. <http://www.mimp.gob.pe/contigo/contenidos/pncontigo-articulos.php?codigo=14>

<sup>9</sup>Ministerio de la Mujer y Desarrollo Social. 2007. ¿Que son los Centros de Emergencia Mujer?. Available at [http://www.mimp.gob.pe/files/programas\\_nacionales/pncvfs/Centros\\_Emergencia\\_Mujer\\_MIMDES1.pdf](http://www.mimp.gob.pe/files/programas_nacionales/pncvfs/Centros_Emergencia_Mujer_MIMDES1.pdf)

number of centers has grown from 13 in the first year to 226 by the end of 2014, covering 100% of the 24 regions of Peru and 96% of the provinces (188 of 196 provinces) (Figure 1). However, the program has been implemented more intensively between 2006 and 2014: from 48 WJCs in 2006 to 226 in 2014, which is an important measure. From a geographical coverage point of view, by 2014 most of the WJCs were concentrated in Metropolitan Lima and Lima Provinces (31 WJCs); in the Callao region there were 4 WJCs; the rest of the coastal region had 46 WJCs; in the sierra region there were 117 WJCs and in the jungle region there were 28 WJCs. The location of these centers is distributed mostly in urban areas.

According to statistics from the MIMP, the number of domestic violence cases registered in the WJC centers has increased substantially: from 29,759 in 2002 to 50,485 in 2014 (See Figure 5). Most of the domestic violence cases reported in the WJC centers are of women between 25 and 45 years old (40%). However, the WJC centers also receive many reports of children and teenagers (0-17 years old), which constitute around 30% of the total cases. A report from the Peruvian Ministry for Women and Vulnerable Populations in 2009, which consists of surveys and interviews in 51 women’s justice centers located all over Peru during 2006-2008, shows that for the majority of the women (75%) who attended a WJC centers, domestic violence stopped during and after the intervention of the WJC center. However, a smaller proportion of women (25%) indicated that domestic violence did not stop in the household even after having attended a WJC center (MIMDES, 2009).<sup>10</sup>

Therefore, it is particularly important to evaluate not only whether the opening of the WJC centers has an effect on the incidence of domestic violence, but also whether these centers act a mechanism of women empowerment which indirectly might also enhance women’s ability to care for their children through better social protection and access to justice.

## 4 The Data

This paper makes use of three different types of datasets which provide variation across geographical regions and time at different levels of aggregation: school level data, individual and household-level survey data and administrative data on WJC centers, femicides and female

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<sup>10</sup>Ministerio de la Mujer y Desarrollo Social. 2009. Investigación operativa: “Eficacia de la intervención de los Centros Emergencia Mujer”. Available at [http://www.mimp.gob.pe/files/programas\\_nacionales/pncvfs/estadistica/eficacia\\_intervencion\\_cem.pdf](http://www.mimp.gob.pe/files/programas_nacionales/pncvfs/estadistica/eficacia_intervencion_cem.pdf)

hospitalizations for assault at the district level.

#### 4.1 School Level Data

The school level datasets we use are the Peruvian School Census (*Censo Escolar*, CE) and the Census Evaluation of Students (*Evaluacion Censal de Estudiantes*, ECE). The Peruvian School Census is a large panel dataset on primary and secondary school enrollment, which covers the universe of schools in Peru during the period 1998 to 2014. This dataset is collected on a yearly basis by the Peruvian Ministry of Education, with exception of the year 2003 and it contains a rich set of information at the school level. More specifically, the School Census collects comprehensive data on the total number of enrolled students by age, grade and gender. These data are designed to reflect enrollment (not attendance) statistics corresponding to the months of May-July. The School Census also collects data on school characteristics, such as language of instruction, public or private, urban or rural area and other physical plant characteristics (i.e. electricity, piped water etc). We complement these data with the Census Evaluation of Students, which contains the standardized test scores of a national exam administered every year to all primary school students in second grade during the period 2007-2014. This exam has two portions: math and language (Spanish) skills.

Each school in these datasets is given a unique ID number, which allows us to follow schools over time. In addition, one of the main advantages of these school datasets is that they are geo-coded, which means that we can observe the exact location of the school. The geographic coordinates of the schools allow us to combine these data with the WJC center’s locations, in order to see whether the area/district of the school is located near the WJC center and thus affected by the opening of these centers that provide specialized attention to victims of domestic and sexual violence.<sup>11</sup>

Panel A of Table 1 shows the years of data coverage and the number of schools from 2006 till 2014, which is the period of analysis of our study. In the later years, the dataset covers a larger share of schools. It is important to note that this dataset is not a balanced panel because during the period of study some schools have closed, while others have opened. In addition, as mentioned above, there is no data available for the year 2003, since data for this year was not collected. Although this means we do not have a balanced panel, by including school fixed

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<sup>11</sup>See Figures A-1 and A-2.

effects we ensure that we compare the same schools over time. The main analysis, then, draws on a nine-year unbalanced panel dataset of 36,994 primary schools (grades one through six) and 12,811 secondary schools (grades one through five).<sup>12</sup>

Panel C of Table 1 provides some summary statistics on school enrollment and school characteristics. The average primary school in our sample has 95.9 students, while the average secondary school has 175 students. The proportion of primary schools is higher in rural areas, while secondary schools are more likely to be found in urban areas. The majority of primary schools are public and teach in Spanish language, but there is also a small proportion that teach in Quechua and other native languages. In contrast, a large proportion of secondary schools (40%) are private and in almost all of them the language of instruction is Spanish.

A final important issue of the School Census data is that it measures total number of children enrolled, not enrollment/attendance rates. This may lead to the concern that our results reflect changes in population. However, we discuss this issue in greater detail in Section 5. In addition, we also use, as a robustness check, the Peruvian Demographic Health Survey (2006-2014) to estimate the share of children who are attending school.

## 4.2 Individual and Household Level Data

Since we do not observe enrollment rates with the School Census, we also use the *Encuesta Demografica y de Salud Familiar* (ENDES), which is the Peruvian version of a Demographic and Health Survey (DHS) to estimate the share of children in primary and secondary level who are enrolled and attending school. In order to be consistent with the school data, for this analysis we use the Peruvian DHS which also covers the period 2000-2014. The Peruvian DHS is exceptionally a continuous survey, which means that the data is collected every year. These surveys are cross-sections designed to be representative at the national and regional levels. The DHS employs a stratified random cluster sampling procedure in which the country is divided into several primary sampling units (in this case, districts) and clusters of households are randomly selected.

In addition to the standard survey which includes demographic and socioeconomic characteristics of the household members (especially for women and children), the Peruvian DHS

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<sup>12</sup>The primary-school sample covers between 4.1 and 3.5 million students each year, whereas the secondary school sample covers between 2.3 and 2.7 million students.

also includes a domestic violence module which asks eligible women if they have ever experienced physical, sexual or emotional abuse from their current or previous partner in the last 12 months.<sup>13</sup> While all women between the ages of 15 to 49 are asked to participate in the standard survey, only one woman in each household, who has ever been married or partnered, is randomly selected to complete the domestic violence module. Women who are never married or never cohabited are excluded from the sample. This selection process is taken by the DHS program in order to minimize underreporting of domestic violence events.<sup>14</sup>

The DHS captures four different types of domestic violence: moderate physical violence, severe physical violence, sexual violence and emotional violence.<sup>15</sup> Since the last one is less visible and more difficult to measure, in this study we define exposure to a domestic violence event if the woman has ever experienced any type of moderate, severe or sexual violence during the last 12 months. The main advantage of using this household survey is that we can link children’s school attendance status with their mother’s self-reported domestic violence. This information is crucial in order to be able to understand the mechanisms behind the results.

Panel B of Tables 2 and 3 provides summary statistics on children’s school attendance status and on women’s domestic violence during 2006-2014, respectively. According to the Peruvian DHS, the school attendance rate in primary level is 97% for both boys and girls, which is almost universal. The school attendance rate in secondary level is also quite high (89%) and very similar between genders. Given that secondary school is not compulsory, the drop-out rate reaches 9%

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<sup>13</sup>It should be noted that though this is an important measure of domestic violence, it does not report the different forms of gender-based violence that affect women beyond spouses and inter-family relationships.

<sup>14</sup>The domestic violence module of questions is implemented only to a subsample of the women selected for the Peruvian DHS sample. There are three security and ethical precautions increasingly mandated by the DHS program for the collection of data on domestic violence. The first requires that the interviewer does not continue with the questions on domestic violence if privacy cannot be ensured. In general, the interviewers are women trained to elicit trust from the respondents. The second requires that only one eligible woman in each selected household is to be administered the module questions. In sample households where more than one woman is eligible for the DHS survey, the domestic violence module is administered to only one randomly selected woman. By interviewing only one woman in each household, possible security breaches, due to other persons in the household knowing that information on domestic violence was given, are minimized. The third requires that the domestic violence questions should be only administered to ever-married or cohabiting women, even though the DHS sample includes all women age 15-49. Underreporting of domestic violence events is quite low, as only 1% of the eligible women was not interviewed because privacy was not made possible in the household.

<sup>15</sup>The DHS defines *moderate physical violence* if the woman experienced at least one of these acts from their spouse or partner: (a) spouse ever pushed, shook or threw something, (b) spouse ever slapped respondent, (c) spouse ever punched respondent with fist or something harmful, (d) spouse ever kicked or dragged respondent. *Severe physical violence* is defined if the woman experienced at least one of the following acts: (e) spouse ever tried to strangle or burn, (f) spouse ever threatened with knife/gun or other weapon, (g) spouse ever attacked with knife/gun or other weapon. *Sexual violence* is defined if the woman experienced at least one of the following acts: (h) spouse ever physically forced sex when not wanted, (i) spouse ever forced other sexual acts when not wanted (j) spouse ever twisted arm or pulled hair.



of the students in this educational level. As for the prevalence of domestic violence, the data indicate that 39% of ever-partnered Peruvian women declared to have experienced abuse from their spouse during the last 12 months.

In addition, the Peruvian DHS also records GPS coordinates for every cluster of households in a certain district, which allows us to measure not only presence of WJC center in the district of residence but also proximity to the WJC center. Although this data was collected yearly, in this study we were able to obtain the GPS cluster locations only for the 2000, 2004-2008, 2009, 2010, 2011 and 2014 Peruvian DHS Surveys.<sup>16</sup> Since the DHS does not disclose the name of the villages (*centros poblados*) where the clusters are located, the final sample is a repeated cross-section of individuals (children and women), where the lowest geographical unit we can condition on is the district.

Our concern with this database is linked to the fact that GPS locations of the sampled DHS clusters of households are displaced before public release to preserve confidentiality of respondents. The GPS displacement is randomly carried out so that: urban clusters are uniformly displaced up to 2 kilometers and rural clusters are displaced up to 5 kilometers, with 1% of the rural clusters displaced up to 10 kilometers. In addition, the displacement is restricted so that the points stay within the second administrative level, which is the province. Therefore, the GPS displacement procedure introduces a random error, which can substantively affect the results of the analysis (Burgert et al., 2013). Perez-Heydrich et al. (2013) propose several recommendations in order to reduce any distance measurement error. Firstly, they suggest that the amount of measurement error depends on the spatial density of the resource facilities. As the density of the resource facilities decreases, the probability that a DHS cluster is linked to the correct closest WJC center increases for all types of locations (urban and rural). In Peru, there are a total of 226 WJC centers by 2014, which means that the spatial density of the WJC centers is quite low and, thus, the measurement error is quite reduced. Secondly, the authors recommend to study the effect of the service within a reasonable buffer distance, rather than using the closest-distance to the resource facility. For this reason, we are going to measure exposure to the WJC center through different groups of Euclidean distance buffers. Lastly, we are also going to limit the analysis to urban areas because in these locations the range of displacement is less than in rural areas.

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<sup>16</sup>See Figure A-3.

### 4.3 Administrative Data on WJC centers, Femicides and Female Hospitalizations for Assault

Information on the rollout of the WJC centers was provided by the *Peruvian Ministry for Women and Vulnerable Populations* (MIMP) and consists of a directory of WJC centers across all over Peru. This directory contains the name of the WJC centers, their founding dates (date-month-year), their administrative locations (district-province-department) and their addresses during the period 1999 to 2014. By using the administrative locations and addresses provided in the directory of the MIMP, we were able to geo-code all the WJC centers, which allows us to have not only the district where they are located but also their exact GPS location.

This data collection project resulted in a dataset of 226 WJC centers from 1999 till 2014. Figure 1 shows a histogram of WJC center founding dates and it also illustrates the evolution of the opening of WJCs since 1999 till 2016, while Figure 2 maps the rollout of the WJC centers at the national level, which allows to visualize the extensiveness and national scope of the program. From both graphs, we can clearly see a substantial growth in the number of centers over time, where 81% of them are founded after the year 2006.

Data on the number of femicides at the district level was obtained from the *Peruvian Crime Observatory at the Ministry of Public Affairs* and it covers the period 2009-2015. This data is recorded by each district attorney office in the country. We complement this information with data on female hospitalizations for assault at the district level, which was obtained from the *Peruvian Ministry of Health*. This information is recorded by different health facilities such as hospitals, health clinics etc. The sample of female hospitalizations for assault includes women between the ages of 18 and 59 and covers the rounds 2007, 2012, 2013 and 2014.

### 4.4 Measuring Exposure to the WJC Centers

In order to be able to match the data on WJC centers with the data on education, we construct two measures of exposure to the program. The first measure uses the GPS coordinates of the child's school/DHS cluster of residence and the GPS coordinates of the WJC centers in order to measure a 1 kilometer Euclidean buffer distances from every school/DHS cluster. For this method, the Euclidean buffer of 1km was first centered on each school/DHS cluster and then each school/DHS cluster was linked to a WJC center if the WJC center falls within the buffer, without consideration of district administrative borders. For instance, a school/DHS cluster

located within 1km of a WJC center founded in 2008 is coded as having a WJC center within 1km of the school/DHS cluster since the 2008 school year. Figure 3 shows a visual representation of the Euclidean buffers for two specific regions in Peru, Lima and Tumbes.

The second measure matches the presence of a WJC center in the district based on its date of opening and location, with the district of the school/DHS cluster of residence. For instance, a school/DHS cluster in the district of Lima (150101) with a WJC center introduced in 2006 is coded as having a WJC center in the district of Lima since the 2006 school year.

Our preferred measure is the one that uses the Euclidean buffer since we want to estimate the impact of having a WJC center in the neighborhood of the school/household. The second measure is used as a robustness check because it might not always capture accurately the impact of the WJC centers due to the fact that districts in Peru have very different sizes. Some districts are very big, while other are very small. Panel B of Table 1 and Panel A of Tables 2 and 3 shows descriptive statistics of exposure to the WJC centers at the school and individual level. The main reason for our choice of a 1km distance buffer instead of a larger buffer is not only because we believe that these centers have a very localized effect, but also because the measure of exposure using a 5km Euclidean buffer seems to be very similar to the one that uses presence of WJC center in the district.

## 5 Empirical Strategy

### 5.1 Placement of WJC centers

A central methodological issue in our analysis is the fact that WJC centers are not placed randomly across the country. Even though our analysis will take advantage of variation over time, which will account for any fixed differences across areas, it still remains important to understand what drives placement since placement decisions may not be orthogonal to other factors that could affect education outcomes.

We address this concern in a number of ways which lead us to believe that the link between the opening of the WJC centers and education outcomes is casual. First, we had several discussions with the Peruvian policymakers and WJC center managers about the location choices. Since the foundation of the first WJC center in 1999 till the end of 2005, the primary criteria they cited when deciding where to locate were population density and level of infrastructure at

the regional level. In this stage, capitals and large cities were prioritized locations to open a WJC center. Starting from 2006, after the decentralization process which transferred the responsibility of the WJC centers to the local governments (districts), the Peruvian policymakers decided to open new WJC centers at the district level and they incorporated additional criteria such as proximity to police stations, district attorney offices (known as *fiscalías*) and health establishments. Even though program guidelines suggested that priority should be given to poorer districts with sufficient judicial and medical infrastructures, in several occasions, political representatives had certain autonomy in deciding the order in which districts received the program. However, our conversations with the Peruvian policymakers suggest that educational considerations, and in particular enrollment rates or schooling performance, were never factored into program placement decisions.

We are able to evaluate this endogenous placement statistically using our data. To do this we estimate, at the district level: (a) the determinants of having a WJC center by the end of the sample in 2014 and (b) the determinants of adding a WJC center during 2006-2014, which is the period when the program grew substantially. We focus on several variables at the district level cited by the Peruvian policymakers such as: number of justice courts, number of district attorney offices, number of police stations and number of health establishments. We also control for district population at baseline and department fixed-effects. Moreover, in order to verify that education patterns before the program do not predict where the WJC centers are introduced, we also control for pre-program changes in primary and secondary school enrollment at the district level.

The results from these regressions are shown in Table 4. In general, the results corroborate the evidence we collected from our conversations with the Peruvian policymakers and WJC center managers. Districts with more police stations, more district attorney offices, more health establishments and more densely populated are more likely to have WJC centers by 2014 and more likely to add them during 2006-2014. Clearly, urban areas with more infrastructure development are more likely to have these specialized centers for women. In addition, pre-program changes in primary and secondary district enrollment do not seem to have any impact. Neither coefficient is statistically significant and both are very small. This result suggests that WJC center placement between 2006-2014 was not based on pre-program changes in schooling.

Finally, we note two additional concerns that might threaten the validity of our research

design. First, one might be worried that another shift (e.g. a government program or policy change) might be rolled out during the same period and in the same places as the WJC centers, which might also have an impact on education outcomes. An obvious candidate is the CCT program *Juntos*, which was launched in September of 2005, right at the time when the WJC centers started to be implemented more intensively.<sup>17</sup> In addition to this, *Juntos* integrates two broad objectives: in the short run, it aims to reduce poverty by providing households with cash transfers; and in the long run, it aims to break the inter-generational transmission of poverty by promoting human capital through improving access to education and health services.

In spite of this, several reasons lead us to believe that *Juntos* is not a confounding factor in our empirical strategy. Districts were selected for program participation based on an index that includes poverty and percentage of villages affected by violence during civil conflict. The aim of *Juntos* was to reach some of the most vulnerable and marginalized segments of the population and focused particularly on rural areas with high poverty rates and limited access to State services.<sup>18</sup> Figure A-6 presents a map showing the rollout of the CCT program. By 2014, about 1142 districts had CCTs and 225 districts had WJC centers. However, more than half of the districts with WJC centers (123 districts) were not covered by the CCT *Juntos* program. This evidence clearly suggests that WJC centers were more likely to be implemented in urban areas, while the CCT program was more likely to cover dispersed populations in the poorest rural areas. We test this assumption more directly by analyzing whether the WJC placement at the district level was correlated with the CCT *Juntos* implementation. Columns 2 and 4 in Table 4 indicate that the WJC center placement was not determined by the rollout of the CCT *Juntos* program.<sup>19</sup>

The second concern related to WJC center placement is that if we estimate the impact of

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<sup>17</sup>See Figure A-4 on the presence of both programs at the district level and Figure A-5 on the timing of CCT *Juntos* and WJC centers programme implementation. There are two large expansions of the CCT *Juntos* implementation, first in 2007 and then in 2012.

<sup>18</sup>*Juntos* is targeted to the population living in poverty and extreme poverty: households with children under 14, pregnant women, widowed parents and/or older adults. It is particularly focused on getting children out of poverty, improving their education, health and nutrition. This programme is also explicitly seen as a way to tackle the special vulnerability of populations who were most affected by the political violence that was prevalent in Peru between 1980-2000. Most of the victims of this conflict were poor populations living in rural areas and Quechua speakers.

<sup>19</sup>We also construct a panel database at the district level on WJC center and CCT *Juntos* placement from 2005 till 2014, which allows us to better analyze whether program implementations were correlated over space and time. By using a fixed-effects model, we can control for any time-invariant locality factors at the district level and also year dummies. The results in Table A-9 corroborate the idea that the CCT *Juntos* is not a confounding factor in our research design.

the WJC centers on all areas, our results might be identified off of rural areas which are not at risk of having a WJC center and these may not be an accurate comparison for those areas which get a WJC center. Given this, we will focus our analysis on a specification in which we limit the sample to urban areas (urban school and households), which are the ones more “at risk” for opening a WJC centers. As a further robustness check, we will also limit our samples to districts which ever have a WJC center during the sample period.

## 5.2 School Level Specification

We use a difference-in-difference empirical strategy to estimate the impact of WJC centers on education outcomes. We exploit the variation created by the differential timing in the opening of the WJC centers and also the spatial variation in the exposure to a WJC center. First, we study the overall effect of WJC centers on education outcomes at the school level by using the following regression equation:

$$Y_{st} = \beta_0 + \beta_1 WJC_{st} + \alpha_s + \lambda_{pt} + \gamma_t X'_s + \varepsilon_{st} \quad (1)$$

where  $(Y_{st})$  is the education outcome (i.e. total number of children enrolled, standardized test scores) in school  $s$  at year  $t$ ,  $(WJC_{st})$  is an indicator variable that takes the value of one if the school has a WJC center within 1km/in the district of the school,  $(\alpha_s)$  is a school fixed-effect,  $(\lambda_{pt})$  is a province-by-year fixed-effect,  $(\gamma_t X'_s)$  is a year-interacted vector of school’s initial characteristics (including initial school enrollment, presence of electricity, presence of piped water, school language (Spanish), urbanisation and public school dummy) and  $(\varepsilon_{st})$  is a random error term. The inclusion of school fixed-effects accounts for any time-invariant characteristics at the school level. However, this does not account for any differential trends in education outcomes associated with WJC center placement. To address this, we allow the year fixed-effects to differ by province and by measures of school’s baseline enrollment and baseline infrastructure. Firstly, province-by-year fixed effects rule out the concern that our results are driven by changes that vary by province and year such as an increase in political corruption or a decrease in provincial resources. Secondly, because initially-different schools might be more likely to change differently, this empirical specification focuses on comparing changes in treatment and control schools with similar initial characteristics that might drive WJC center placement.

The coefficient of interest is  $(\beta_1)$ , which captures the average change in enrollment in schools that are located near the WJC centers or in districts with WJC center, to the average change in enrollment in schools that did not have a WJC center. The identification assumption is that treatment schools located in the proximity of a WJC center/in districts with WJC center would otherwise have changed similarly, on average, to those controls schools that are not exposed to the services of a WJC center. In practice, by controlling for province-by-year fixed-effects  $(\lambda_{pt})$  and by variables that drive WJC center placement, the identification assumption is that treatment schools would otherwise have changed similarly, on average, to control schools within their same province and with similar initial characteristics. Throughout this analysis, we cluster our standard errors at the school level. We also estimate this regression including district-specific time trends.

As noted in the introduction, we are concerned about the possibility that the results are driven by time-varying variables which might influence both the opening of the WJC centers and school enrollment. A related issue is the possibility that WJC center managers consciously decide to introduce centers where school enrollment is increasing. To address both of these issues, we use the panel nature of the school data in order to construct a placebo treatment based on the timing of the WJC centers introduction. We estimate whether *future* WJC centers predict current enrollment using equation 2 below:

$$Y_{st} = \beta_0 + \beta_1 WJC_{st} + \beta_2 WJC_{st+1} + \beta_3 WJC_{st+2} + \beta_4 WJC_{st+3} + \alpha_s + \lambda_{pt} + \gamma_t X'_s + \varepsilon_{st} \quad (2)$$

where  $(WJC_{st+1})$ ,  $(WJC_{st+2})$  and  $(WJC_{st+3})$  are indicator variables that takes the value of one if the school has a WJC center within 1km/in the district of the school starting from the year  $t + 1$ ,  $t + 2$  and  $t + 3$ . If  $\beta_2 > 0$ ,  $\beta_3 > 0$  and  $\beta_4 > 0$  are positive and significant, this would indicate that WJC centers are being introduced in areas where schooling is increasing more rapidly. While, if  $\beta_2 = \beta_3 = \beta_4 = 0$  this would indicate that WJC centers are introduced in areas in which school enrollment is growing for other reasons.<sup>20</sup> Therefore, the coefficients  $\beta_2, \beta_3$  and  $\beta_4$  effectively capture the effect of future openings for areas that are not covered by the WJC centers in  $t$ . Our hypothesis for the placebo regression is that total enrollment in schools that do not have a WJC center within 1km/in the district should *not* be affected by the

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<sup>20</sup>This technique has already been used to address this concern by LaFerrara et al, 2012; Oster and Steinberg, 2013.

fact that a WJC center may open in the future in the proximity of these schools.

### 5.3 Individual Level Specification

Since our school level data contain number of students enrolled, but not enrollment rates, we then use, as a further robustness check, the *Peruvian DHS* to estimate the impact of WJC centers on children’s school attendance status. The main individual outcomes is a dummy variable indicating whether the child is attending school during the year of the survey. We also use additional individual outcomes, which are defined as a changes in school attendance status between one year and the next, conditional on the child being enrolled in school. Therefore, the dependent variable can be classified as: (a) currently attending school, (b) passed grade (c) repeated grade (d) dropped out and (e) left school more than 2 years ago. Using the same identification strategy, the regression equation is the following:

$$y_{it} = \gamma_0 + \gamma_1 WJC_{it} + \alpha_d + \lambda_{pt} + \delta X'_{it} + \varepsilon_{it} \quad (3)$$

where  $(y_{it})$  is one of the previously discussed school attendance statuses for child  $i$  at year  $t$ ,  $(WJC_{it})$  is an indicator variable that takes the value of one if there is a WJC center within 1km of the child’s household/in the district of residence of child  $i$  in year  $t$ ,  $(\alpha_d)$  is a district fixed-effect,  $(\lambda_{pt})$  is a province-by-year fixed-effect,  $(X'_{it})$  is a vector individual-level characteristics (including age, gender, household’s head years of education, number of children in the household aged 0-18, number of children in the household aged 0-5, number of female adults, number of male adults, rural residence dummy) and  $(\varepsilon_{it})$  is a random error term. Standard errors are clustered at the district level and we also include district-specific time trends.

The coefficient of interest is  $(\gamma_1)$ , which captures the average change in school attendance status of children that are located near the WJC centers or in districts with WJC center, to the average change in school attendance status of children that are not reached by a WJC center. The identification assumption is that in the absence of the WJC centers, treatment households would otherwise have changed similarly, on average, to control households within their same province. Note that in this specification we cannot control for individual fixed-effects because the DHS database is a repeated cross-section.



## 6 Results

### 6.1 Impact of WJC Centers on School Enrollment

#### 6.1.1 Main Results

This section analyzes our estimates of the impact of the WJC centers on education outcomes at the school level. From estimating equation 1, Table 5 and Table 6 present estimated impacts of WJC centers on average enrollment in primary schools and secondary schools, respectively. While Table 7 presents the impact of WJC centers on standardized test scores for second grade students in primary level.

Panel A of Table 5 shows our primary school enrollment estimates when exposure to the program is measured through the presence of a WJC center within a 1km Euclidean buffer. Column 1 presents the results using the entire sample. The coefficient on WJC center within 1km is positive and statistically significant. This result indicates that the introduction of a WJC center within 1km of a school is associated with an increase of 2.8% in the number of children enrolled in primary school in the year after the center was opened. Column 2 shows this regression after including district-specific trends to address the concern that districts that have a WJC center are trending differently than those that do not. The coefficient is almost unchanged (2.7%) and still highly significant. In Column 3, we include district population as a time-varying control in order to rule out the concern that our results might be driven by mechanical changes in population, especially due to the fact that our school data measure number of students enrolled, not enrollment rates. After controlling for district population, the impact of WJC centers on primary school enrollment is even larger (3.3%) and statistically significant. Our preferred specifications are shown in Columns 4 and 5, in which we limit the sample to just urban schools and districts that ever have a WJC center, which means that control schools are most comparable to those which are affected by a WJC center. Although this restricts the sample significantly, the coefficient for urban schools in Column 5 is also larger in magnitude to the overall sample (3.2%) and highly significant. Lastly, the impact for districts that ever have a WJC center is bit smaller in magnitude (2.4%) and significant, despite the fact that we restrict the sample size even further.

In Panel B of Table 5 we explore the impact of WJC centers on primary school enrollment by using the alternative measure of exposure, presence of a WJC center in the district. We

use this alternative explanatory variable as a robustness check and also to explore whether the opening of a WJC center matters in broader surroundings. Panel B shows that introducing a WJC center in the district also has a positive and significant effect, but the coefficient is a bit lower (1%), indicating that the effect probably decreases with distance. Focusing on our preferred specifications in Columns 4 and 5, we find that adding a WJC center in the district increases the total number of children in primary school between 1.2% and 1.9%.

Table 6 shows the impact of WJC centers on secondary school enrollment, using the different measures of exposure to the program. We also find a positive impact on the number of children enrolled in secondary school (2.9%) when we use the entire sample, but the effect is not robust to controlling for district specific trends and to limiting the sample to districts which ever have WJC center. The specification with urban schools is the only one that yields a positive and significant coefficient of 3.4% for secondary school enrollment.

Lastly, consistent with these results, we also find some suggestive evidence of a positive effect on standardized test scores for primary school children located in schools near a WJC center. Table 7 shows that test scores of children in schools located in the proximity of a WJC center are 0.02 - 0.05 standard deviations higher. Even though these results are not robust to all the different specifications, they are positive and highly significant for urban schools.

All these findings suggest a strong connection between the presence of WJC centers and total number of children in school. They also indicate that these findings are localized to within few kilometers and they are mostly driven by urban areas. In Table A-2 of the Appendix, we also show these effects broken down by gender and grade. We find that these effects are similar for boys and girls, even though they seem to be driven mostly by girls. We also find that the impact is equally distributed among the different grades.

### 6.1.2 Placebo regression: *Future* WJC centers

As mentioned earlier, the main threat to our identification strategy is the possibility that WJC centers were rolled out in response to changes in enrollment, rather than causing them. This is strongly linked to the issue of endogenous WJC center placement. Even though, we account for characteristics which are constant over time through school fixed-effects, one concern that remains is the possibility that WJC centers are placed in areas where enrollment is increasing more rapidly since center managers or policymakers are targeting more densely populated areas.

Another concern is posed by time-varying unobservables correlated to both the timing of the WJC centers and school enrollment. For example, it could be that areas reached by the WJC centers are also hit by a positive economic shock or there are improvements in public welfare programs at the time they are opening the WJC centers. We already account for this by controlling for province-by-year fixed effects.

However, another way to address the concern that WJC centers are located in areas that are changing in other ways that we do not observe is by constructing a placebo treatment based on the timing of the WJC center openings. We estimate analogous regressions to the ones in Tables 5 and 6 (our baseline school-level specification), but instead of only looking at the effects of opening a WJC center on current enrollment, we also look at the effects of *future* openings. The idea is that if *future* WJC center openings predict current enrollment, this would suggest that WJC center placement anticipates changes in schooling, rather than causing them. Table 8 and 9 show the results for this falsification exercise for primary and secondary school enrollment, respectively. We find that the effect of future WJC centers is virtually zero and not statistically precise, suggesting no strong evidence of pre-trends. In addition, the inclusion of future WJC centers does not affect our estimate of the impact of current WJC center on school enrollment.

## 6.2 Impact of WJC Centers on Children’s School Attendance

The evidence above suggests that overall primary school enrollment increases in response to WJC center introduction. Here, we analyze the impact of WJC centers on children’s school attendance and their attendance status as an additional robustness check since a downside of our school-level data is that we observe number of students enrolled, not enrollment rates. Table 10 and Table 11 summarize the estimated impacts of WJC centers on children’s school attendance in primary and secondary level, respectively, from estimating equation 3. While, Table 12 presents the results for children’s attendance status.

First, Panel A of Table 10 indicates that children in primary school living in household’s located near a WJC center are significantly more likely to attend school. More specifically, living in the proximity of a WJC center increases children’s school attendance by approximately 2 percentage points. Focusing on our preferred specifications in Columns 3 and 4, we find a positive and statistically significant effect on children’s primary school attendance after the opening of a WJC center in the proximity of the household but also in the district of residence.

These results are robust to using the different measures of exposure to the program and they are also similar in magnitude to the results found with the school-level data, which is reassuring.<sup>21</sup>

Second, in Table 11 we also find a positive and statistically significant impact of WJC centers on secondary school attendance for those children living within 1km of the center. These effects range between 2 to 3 percentage points. However, this effects disappear when we use presence of a WJC center in the district as a measure of exposure.<sup>22</sup>

Lastly, the impact of WJC centers on school attendance status - grade advancement conditional on staying in school, repeating grade, recent drop-out and old drop-out was also estimated using the same method as reported for school attendance. Results in Table 12 show that children located near a WJC center are significantly more likely to pass a grade and they are also significantly less likely to drop out of school. However, we do not find an effect on grade repetition nor on having left school more than two years before the opening of the centers. These results are robust to using different samples of children (i.e. children of the women selected for the domestic violence module). What we find, overall, is that investments in children’s human capital are affected positively by the introduction of the WJC centers.

## 7 Mechanisms

In this section we provide some initial evidence on the mechanisms that might potentially drive these effects. We distinguish two possibilities. Firstly, the introduction of WJC centers may have contributed to break the silence regarding violence against women and turning it into a public issue. By making domestic violence more visible, these specialized institutions may be changing the discriminatory social values and power structures that underlie violence against

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<sup>21</sup>The magnitude of the main effects in Table 10 could be considered very large given the primary school attendance rate of 97%. In order to interpret this result, in Table A-10 of the Appendix we analyze domestic violence in the household by children’s primary level school attendance status. Effectively, we find that domestic abuse is much higher among the 3% of households who do not send their children to primary school and this difference is driven by urban areas. We also analyze how primary school attendance is distributed in areas closer and further away from the WJC centers. Results in Table A-11 of the Appendix indicate that primary school attendance rates in areas/neighbourhoods with a WJC center are lower compared to areas without a WJC center. In addition, our second piece of evidence on the interpretation of the magnitude of these coefficients focuses on child labor. Table A-12 reports regression results of the impact of WJC centers on child labor for children aged 6 to 14 years old. These findings show that proximity to a WJC center is associated with a statistically significant reduction in child labor, especially for young girls.

<sup>22</sup>Due to the GPS displacement issue in the Peruvian DHS data, we also estimate the impact of WJC centers using two additional Euclidean buffers: 3km and 5km. Results in Tables A-3 and A-4 show that when we analyze the effect of the WJC in broader surroundings we do not find a significant impact for both primary and secondary school attendance rates.

women. Alternatively, the presence of a WJC center in the neighborhood or in proximity of the household may generate a more credible threat to the potential offenders through greater chances of demanding police involvement and criminal penalties. This distinction is potentially important when thinking about public policy implications.

Both mechanisms lead to the conclusion that WJC center’s intervention in households with abuse may change the behavior of offenders and victims. In other words, the opening of WJC centers might be a powerful tool to reduce the incentives of the spouse to choose domestic violence through an improvement of the bargaining power of women in the household and, in turn, it might also improve women’s ability to take care of their children. Several economic theories of household bargaining power suggest that policies aimed at affecting spouse’s outside option from a marriage may also affect within-household distribution through changes in their relative bargaining positions (McElroy and Horney, 1981; Manser and Brown, 1980).

In order to distinguish between these possible mechanisms, we use the Domestic Violence Module of the Peruvian DHS and the administrative data from the Peruvian Crime Observatory and the Ministry of Health, which allows us to estimate the impact of the WJC centers on: (a) the prevalence of domestic violence during the last 12 months (physical and emotional) (b) femicides and female hospitalizations for assault (c) decision-making and bargaining power in the household. Table 13 presents the results of regressing the likelihood of experiencing domestic violence in the last 12 months against the presence of a WJC center within 1km/in the district after controlling for age, age at first marriage, number of children, years of education, number of household members, number of households in the dwelling, marital status, rural residence dummy, district fixed-effects and province-by-year fixed effects. These findings show that women living within 1km of a WJC center or in a district with WJC center are significantly less likely to suffer from physical violence by their spouse.<sup>23</sup> These results are robust to including district specific trends and to limiting the sample to urban clusters and districts which ever have a WJC center. In Table A-6 of the Appendix, we also show that these results are driven by older and more educated women, which are the ones that are more likely to have better outside options. In addition, in Table 14 we present the impact of the WJC centers on different types of emotional

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<sup>23</sup>The full sample of women in the Peruvian DHS surveys consists of 210,847 respondents aged 15 to 49 over the period 2000-2014. However, this sample is reduced to 121,404 eligible women since we only include partnered women who are eligible for the domestic violence module. When we run estimations using the geo-coded cluster locations during the period 2006-2014, this sample is reduced even further to 64,366 observations of women.

violence. In general, we find a negative but not statistically significant effect.

However, one limitation of the data collected on domestic violence is that it is self-reported by respondents and, therefore, subject to recall bias, cultural values and willingness to report domestic violence. In order to corroborate our results, we also use data on femicides and female hospitalizations for assault at the district level. Tables 15 and 16 present the results of regressing the log of number of femicides and female hospitalizations for assault against the number of WJC centers in the district. These findings indicate that the opening of a WJC center in the district can be associated with a statistically significant reduction in the number of femicides and female hospitalizations for assault. The largest effect is found for women aged 20 to 39 years old, which is reassuring in terms of the results found with the domestic violence data.

Next, we analyze patterns of institutional trust in case of a domestic violence event. We focus on relating proximity to a WJC center to the type of institutional help sought by women in case of having suffered from domestic violence abuse. More specifically, we analyze nine institutional trust variables: whether the respondent reports having sought help in a police station, justice court, district attorney office, DEMUNA (Defense center for children and adolescents), WJC center, ombudsman office, health facility, NGO and other institution. Results in Table 17 indicate that married or cohabiting women living within 1km of a WJC center are less likely to seek help in a regular police station, but instead they are significantly more likely to put their trust in the women’s justice centers. This result suggests that institutional trust is reinforced in the area close to the WJC center, which might lead to a potential female empowerment.

Central to the analysis on the mechanisms behind the results is the relationship between household decision-making and the WJC center introduction. In order to test this, we also use the Peruvian DHS which records who has the final say on a variety of household decisions. For example, a woman is asked “*who makes the final decision on large household purchases?*” or “*who makes the final decision on money husband earns?*”. Responses include: respondent only, jointly with partner and partner only. For these categories, we construct three measure of equal decision-making. The first one is a score that ranges from 0 to 6 and counts the number of times the respondent makes decision jointly with partner. The second one is also a score that ranges from 0 to 1 and counts the share of decisions made jointly with partner. The third one is a dummy that takes the value of 1 when at least one decision is made jointly with the partner. In addition to decision-making, we also estimate the effect of WJC centers on women’s earnings

relative to their husbands.

Table 18 provides the estimates of the impact of WJC centers on decision-making and bargaining power. We find suggestive evidence of an improvement in the bargaining power of women in the household. In particular, we find that women living near a WJC center are more likely to make joint decision-making with their husband. They are also less likely to earn less than their husband and more likely to earn as much as their husband. We also analyze whether the WJC centers have an effect on women’s labor force participation. Results in Table 19 indicate that women’s labor supply does not seem to be affected by the opening of these centers.

## 8 Assessing the Internal Validity of the Research Design

In this section we present several robustness checks that support the validity of the identification assumption of the paper. The main threat to the identification strategy is the correlation between the order of the opening of the WJC centers and the trends in education patterns before the rollout of the program. Basically, the average effect of the WJC centers would be biased if the timing of WJC centers creation was correlated with pre-program changes in education outcomes. In order to test this, we begin by estimating a regression of pre-program changes in school enrollment on indicators for the year the WJC center was introduced within a 1km radius of the school:

$$\Delta \text{Log}(Y_{st}) = \text{Log}(Y_{st-1}) - \text{Log}(Y_{st}) = \gamma + \alpha_t + \sum_{k \geq t} \delta_k I(WJCyear_{<1km,s} = k) + \varepsilon_{st} \quad (4)$$

The dependent variable is  $\Delta Y_{st}$  is the change in the log of primary/secondary total school enrollment from year  $t - 1$  to year  $t$ . The set of dummy variables ( $WJCyear_{<1km} = k$ ) take the value of 1 in the year in which a WJC center was opened within 1km of the school. Year fixed-effects are denoted as  $\alpha_t$ . The data for this test is derived exclusively from the School Census (CE) database and the sample is restricted to those schools that were reached by the program between 2006 and 2014. The reference group is the opening of a WJC center in 2006. If ( $WJCyear$ ) effects are jointly significant it would indicate that year of WJC center creation within 1km of the school was correlated with pre-program changes in total school enrollment.

We cannot perform the same test with the *Peruvian DHS* since we do not observe the same clusters of households over time. This means that we cannot exploit the variation generated by

proximity to the WJC center through Euclidean buffers. However, we can still check whether the timing of WJC center introduction in the district is correlated with changes in school attendance in the district. For this case, we regress pre-program changes in district-level school attendance rates on yearly indicators of WJC center introduction in the district:

$$\Delta y_{dt} = y_{dt-1} - y_{dt} = \gamma + \alpha_t + \sum_{k \geq t} \delta_k I(WJCyear_d = k) + \varepsilon_{dt} \quad (5)$$

In Tables 20 and 21 we show results on three different windows of pre-program changes in education outcomes, 1998-2000, 1998-2005 and 1998-2010, at the school and district level, respectively. These findings show that pre-program changes in education at the beginning of the rollout might be correlated with the timing of the WJC center introduction. While, the other two windows of pre-program education results, 1998-2005 and 1998-2010, indicate that the rollout year is not correlated with pre-program changes in education outcomes. For this reason, we decide to focus our analysis in the middle of the rollout, that is, from 2006 till 2014, for which identifying assumptions are likely to hold.

We do not find evidence that pre-program trends in education patterns were correlated with the order of the WJC center implementation during the period 2006-2014. Tables A-7 and A-8 report the results of estimating equation (4) and (5), respectively. Results in Table A-7 indicate that opening a WJC center within 1km of the school does not significantly explain pre-program changes in primary and secondary school enrollment between 1998-2005. Similarly, results in Table A-8 show that the opening of a WJC center in the district is not correlated to pre-program changes in school attendance. Columns 2, 3, 5 and 6 repeat this exercise by gender. In all cases, we are unable to reject the null hypothesis of the joint test. These findings strongly suggest that pre-program time trends for the education outcomes of interest are not correlated with the introduction of the WJC centers between 2006-2014. We also perform the same test with other outcomes used in the study such as standardized test scores and domestic violence and we do not find evidence of pre-program trends. See results in Tables 22 and 23. The pre-program patterns for each relevant outcome are depicted by Figure 6.

We also exploit the fact that we have information prior to the introduction of the WJC, since the rollout was done gradually each year, in order to conduct an additional formal test of whether pre-trends in the outcomes of interest are correlated with the opening of the WJCs in



Peru. This test also allows us to better understand the dynamics of the WJC center introduction and the outcomes of interest. For instance, how quickly school enrollment or attendance increase after the opening of a WJC and whether this impact accelerates, stabilizes or mean reverts. To explore these dynamics, we conduct an event study analysis, where we analyze the impact of leads and lags of the WJC implementation. Formally, we estimate the following regressions at the school and individual level, respectively:

$$Y_{st} = \beta_0 + \sum_{i=-3}^4 WJC_s * \beta_i I(\tau_{st} = i) + \alpha_s + \lambda_{pt} + \gamma_t X'_s + \varepsilon_{st} \quad (6)$$

$$y_{idt} = \gamma_0 + \sum_{i=-3}^4 WJC_d * \beta_i I(\tau_{dt} = i) + \alpha_d + \lambda_{pt} + \delta X'_{it} + \varepsilon_{it} \quad (7)$$

where  $\tau_t$  denotes the event year, defined so that  $\tau = 0$  for the year the WJC was introduced within 1km/in the district of the school/household,  $\tau = 1$  for one year after the WJC centers began to operate, and so on. For  $\tau \leq -1$ , school and households were untreated by the WJC introduction. The coefficients are measured relative to the omitted coefficient  $\tau = -1$ . In other words, we add indicator variables for up to 3 years before implementation and 0-4 years after implementation. Figure 7 and 8 plot the coefficient of the interaction for the years leading up to the opening of the WJC centers and the years after the introduction of the WJC centers from estimating equations 6 and 7, respectively. For each outcome, we expect that coefficients on dummies for years -3 and -2 (the years prior to the WJC centers) should not be significant, because if this was the case, the validity of the parallel trends assumption would be violated.

For primary school enrollment and attendance, we find that the treated schools and households did exhibit a rising trend (relative to the control group) prior to the WJC implementation but this difference is not statistically significant. For standardized test scores, there is also no difference in pre-program trends between school located near a WJC center and those further away. Indeed, the graphs show an absence of a strong pre-trend and evidence of a trend break after the WJC opened within 1km/in the district. In the year of the opening, primary school enrollment increases substantially by 1.8% for schools located within 1km of the WJC, after which this increment fluctuates around 2% over the subsequent 3 years. For school and households located in districts with a WJC presence, the greatest impact on primary school enrollment, primary school attendance and standardized test scores is found 2 years after the opening of the

centers. For secondary school enrollment, we find that schools exposed to a WJC center have a lower enrollment and attendance prior to the opening of the WJC. However, this decline is opposite to the direction we observe after the WJC introduction, though it is not statistically significant.

For women’s outcomes (i.e. domestic violence, emotional violence, joint decision-making and labor supply), the coefficients on the years leading up to the opening of the WJC centers are close to zero and not significant, showing no evidence of an anticipatory response within district about to introduce the WJC centers. In particular, we find that women located in districts with a WJC center present lower propensity to experience domestic violence since the year of the opening of the WJC center. This declining pattern reaches its largest impact 2 years after the opening of the center, which coincides with the positive impact on education outcomes. The similar timing of the effects on education and domestic violence provides further evidence that improving access to justice for women might be an important mechanism for allowing women to take better care of their children by increasing their investment in human capital.

## 9 Conclusion

In this paper we argue that the opening of WJC centers in Peru has a positive impact on children’s human capital investment, and these impacts are concentrated in the very local areas around the WJC center. To the best of our knowledge, this is the first quantitative analysis that attempts to explore the impact of an unexamined dimension of institutional intervention that provides better access to justice for women, namely the WJC centers, on education outcomes and the prevalence of domestic violence.

We deal with the potential endogeneity in the WJC center placement by exploiting the variation generated by the rollout of the women’s justice centers in Peru. Basically, in order to ensure that our results are not driven by selection or time-varying unobservables, we use a difference in-differences strategy, which exploits variation created by the differential timing in the opening of the WJC centers and also the spatial variation in the exposure of a school/household to a WJC center, together with province-by-year fixed effects. We provide evidence in support of the identifying assumptions, and account for two key time-varying confounders: the fact that WJC center introduction might anticipate changes in schooling and unobservable changes in variables that might affect both the timing of the WJC centers and the education outcomes.

Our main finding is that investments in children’s human capital are affected positively by the introduction of the WJC centers. In particular, we find that introducing a WJC center within 1km of a school causes an increase of 3% in the total number of children enrolled in primary school. In addition, we also find suggestive evidence that primary school second graders have better test scores in reading and mathematics. Moreover, we find that children in primary school living in household’s located near a WJC center are significantly more likely to attend school, to pass a grade and they are also significantly less likely to drop out of school. These effects are localized within a few kilometers and they are mostly driven by urban areas.

We also test whether this pattern of results could be caused by potential mechanisms. Lastly, we provide evidence that these improvements might be driven by a reduction in the prevalence of domestic violence, femicides and by an increase in the bargaining power of women inside the household. From a public policy standpoint, our analysis implies that providing better access to justice for women can be a powerful tool to reduce domestic violence and increase human capital investment of children, suggesting a positive inter-generational benefit of the program.

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Figure 1: Distribution and Growth of the Opening of the *Women's Justice Centers* (WJCs) by Year - Peru (1999-2016)

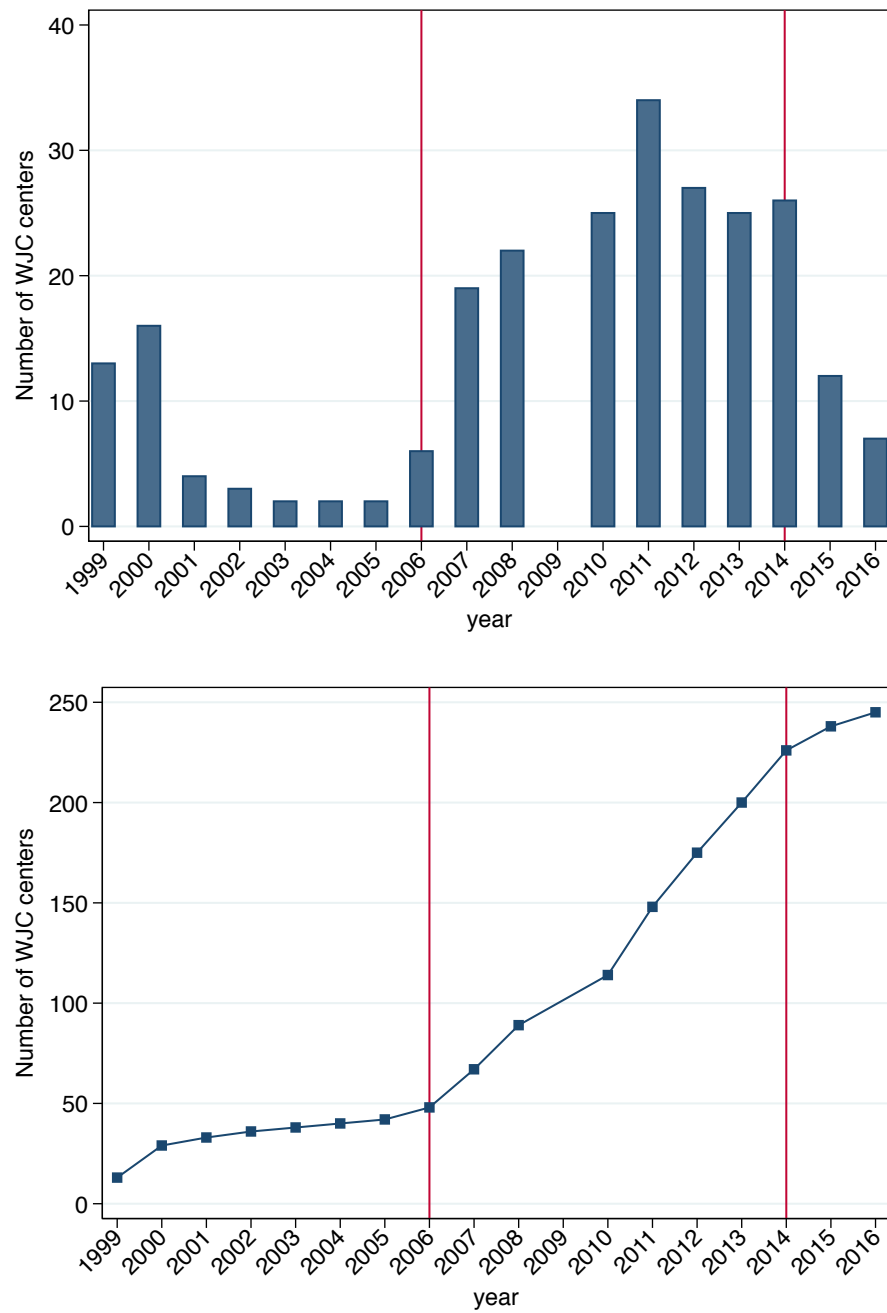




Figure 2: Rollout of the WJCs across Time and Space (1999-2014)

a. WJC centers in 2000



b. WJC centers in 2006



c. WJC centers in 2011



d. WJC centers in 2014



Figure 3: Euclidean Distance Buffers and WJC centers (Schools and DHS Clusters of Households) - Lima and Tumbes

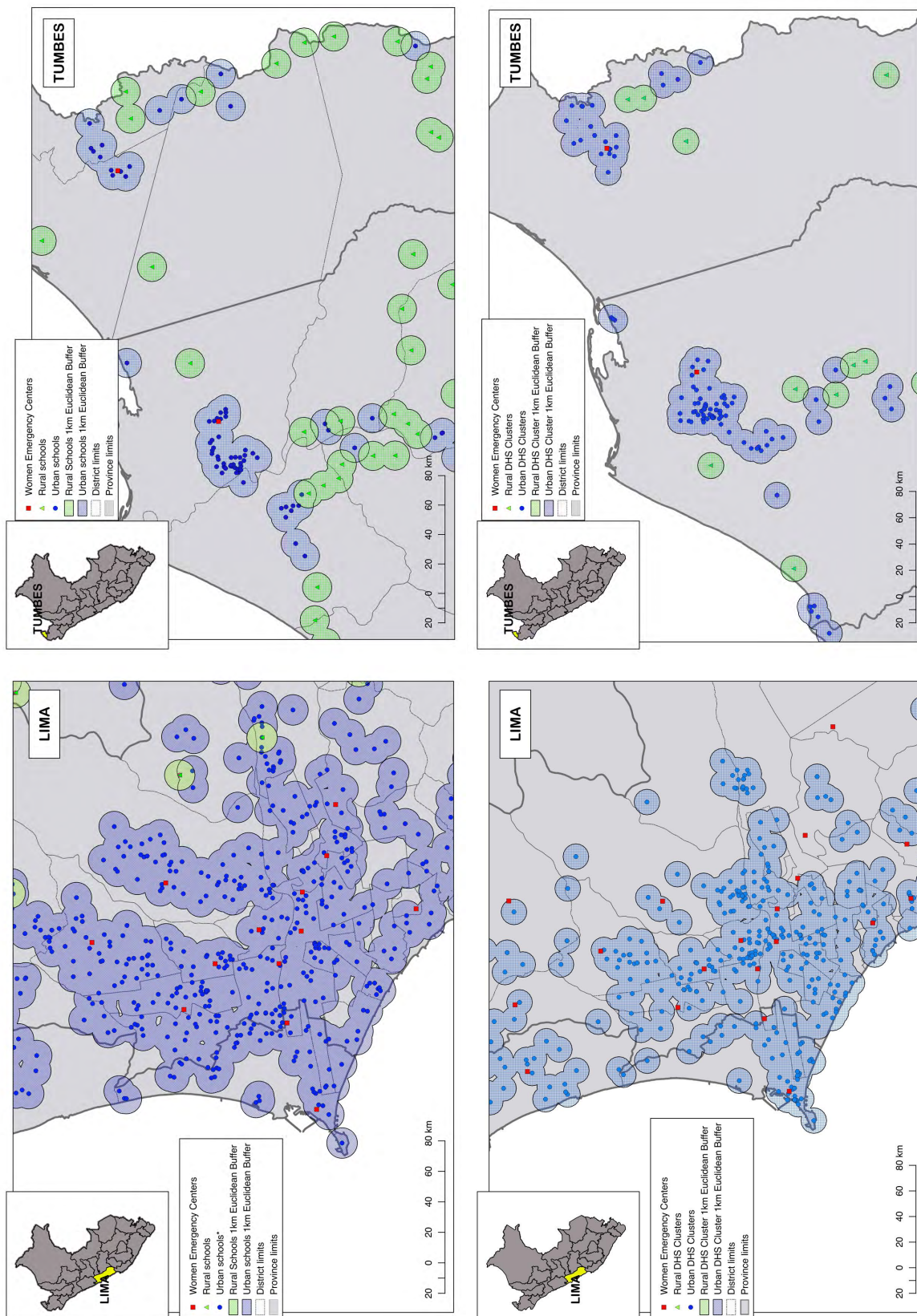
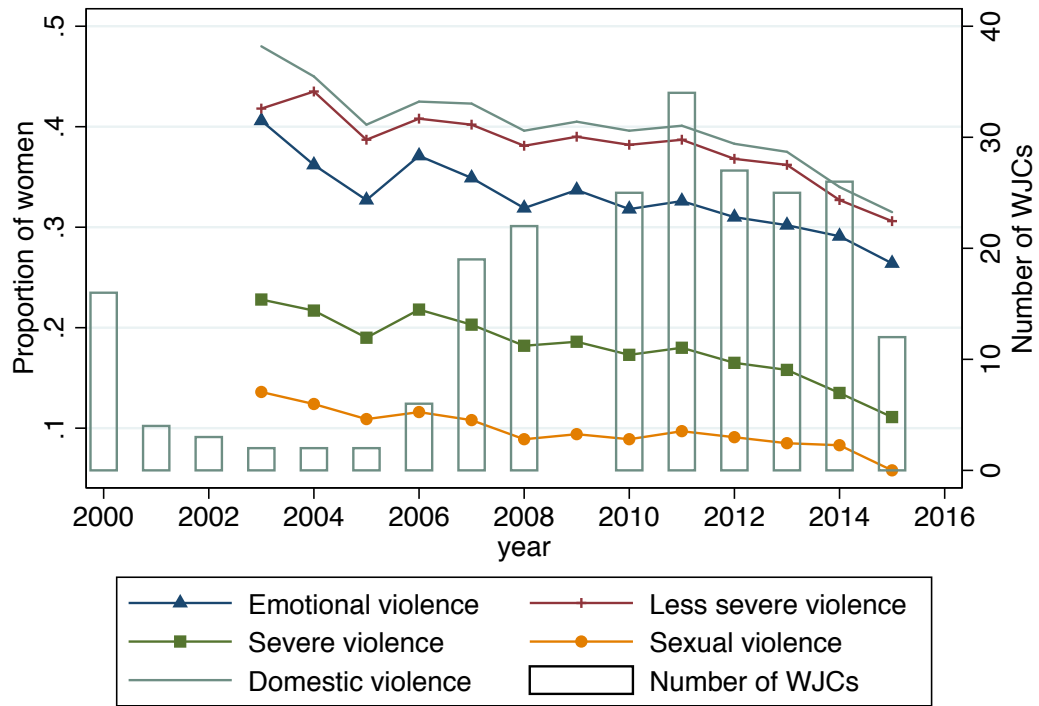


Figure 4: Domestic Violence in Peru (2003-2015)



Source: 2003-2015 Peru DHS

Figure 5: Total Number of Persons Attended in WJC Centers by Year (2002-2016)

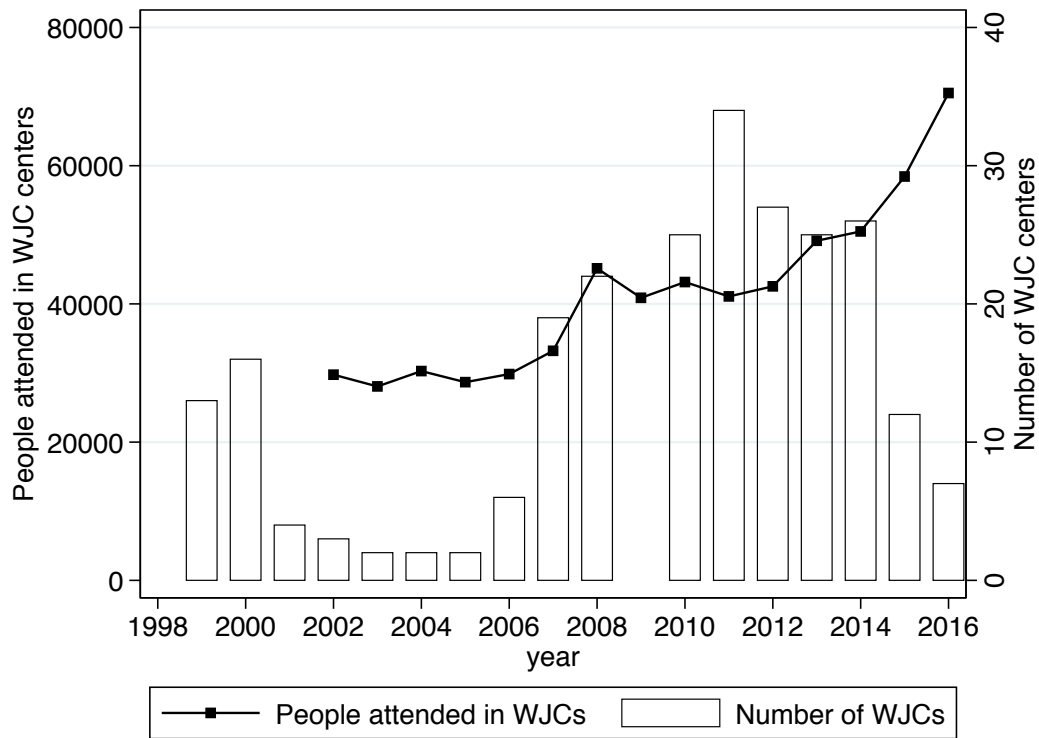


Table 1: Descriptive Statistics: School Enrollment and WJC Center Exposure (2006-2014)

	Primary Schools (1st - 6th Grade)			Secondary Schools (1st - 5th Grade)		
	All	Urban	Rural	All	Urban	Rural
<i>Panel A: Years of coverage and number of schools</i>						
Number of schools in						
First year of coverage (2006)	32,817	12,007	20,810	9,693	6,822	2,871
Last year of coverage (2014)	36,859	14,325	22,534	12,773	8,488	4,285
<i>Panel B: Number of schools by exposure to a WJC center</i>						
Never had WJC within 1km	34,372	11,883	22,489	11,287	7,018	4,269
WJC within 1km	2,575	2,524	51	1,522	1,504	18
Never had WJC within 5km	26,418	5,095	21,323	7,282	3,164	4,118
WJC within 5km	10,529	9,312	1,217	5,527	5,358	169
Total of schools	36,947	14,407	22,540	12,809	8,522	4,287
Never had WJC in the district	24,439	6,530	17,909	7,481	4,040	3,441
WJC in the district	12,555	7,884	4,671	5,330	4,484	846
Total of schools	36994	14,414	22,580	12,811	8,524	4,287
	Primary Schools (1st - 6th Grade)			Secondary Schools (1st - 5th Grade)		
	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
<i>Panel C: School Summary Statistics</i>						
Total Enrollment	315,221	95.9	142.5	102,685	174.8	206.8
Female Enrollment	315,221	46.9	73.6	102,685	84.4	114.9
Male Enrollment	315,221	49.0	75.4	102,685	90.4	113.1
<i>School Characteristics</i>						
Public School	315,221	0.797	0.402	102,685	0.636	0.481
Urban School	315,221	0.378	0.485	102,685	0.679	0.466
School Language (Spanish)	315,221	0.815	0.387	102,685	0.905	0.292
School Language (Quechua)	315,221	0.124	0.330	102,685	0.000	0.242
School with electricity	315,221	0.671	0.469	102,685	0.872	0.334
Schools with piped water	315,221	0.729	0.444	102,685	0.845	0.361
Reading test-scores (2nd grade)	181,240	510.18	73.08			
Math test-scores (2nd grade)	181,240	507.74	81.68			
Both test-scores (2nd grade)	181,240	508.9	73.44			

*Notes:* The GPS data was not available for 49 schools (47 primary schools and 2 secondary schools) in the Peruvian School Census. Source: Peru School Census (2006-2014)

Table 2: Descriptive Statistics: Children's School Attendance and WJC Center Exposure (2006-2014)

	Primary Level (Children: 6-11 years old)			Secondary Level (Children: 12-16 years old)		
	All	Urban	Rural	All	Urban	Rural
<i>Panel A.1: Number of children by exposure to a WJC center - (GPS data)</i>						
No WJC within 1km	42,914	19,654	23,260	29,494	14,282	15,212
WJC within 1km	5,789	5,740	49	4,025	3,991	34
No WJC within 5km	32,066	9,706	22,360	21,691	7,087	14,604
WJC within 5km	16,637	15,688	949	11,828	11,186	642
Total of children	48,703	25,394	23,309	33,519	18,273	15,246
<i>Panel A.2: Number of children by exposure to a WJC center - (All data)</i>						
No WJC in the district	48,895	19,250	29,645	33,392	13,999	19,393
WJC in the district	22,971	19,084	3,887	16,069	13,490	2,579
Total of children	71,866	38,334	33,532	49,461	27,489	21,972
	Primary Level (Children: 6-11 years old)			Secondary Level (Children: 12-16 years old)		
	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
<i>Panel B: Children's Summary Statistics</i>						
Currently Attending	48,703	0.970	0.169	33,519	0.895	0.305
Female Attendance	24,689	0.970	0.169	18,549	0.899	0.300
Male Attendance	24,014	0.970	0.169	14,970	0.891	0.311
Passed Grade	48,213	0.919	0.271	30,380	0.782	0.412
Repeated Grade	48,213	0.048	0.215	30,380	0.038	0.191
Dropped Out	48,213	0.022	0.146	30,380	0.090	0.287
Left School +2 years ago	48,213	0.002	0.047	30,380	0.084	0.278
<i>Children's Characteristics</i>						
Age	48,703	8.467	1.700	33,519	13.786	1.384
Head's Years of Education	48,703	8.602	7.159	33,519	8.348	7.025
Urban Cluster	48,703	0.521	0.499	33,519	0.545	0.497
# Female Adults in HH	48,703	1.219	0.532	33,519	1.218	0.541
# Male Adults in HH	48,703	1.101	0.611	33,519	1.120	0.669
# HH Members 0-18 years old	48,703	3.166	1.522	33,519	3.248	1.551

Notes: The GPS data was not available for the years 2012 and 2013 in the Peru DHS. Source: Peru DHS (2006-2014)

Table 3: Descriptive Statistics: Women's Domestic Violence and WJC Center Exposure (2006-2014)

	<b>Women: 15-49 years old</b>		
	All	Urban	Rural
<i>Panel A.1: Number of women by exposure to a WJC center (GPS data)</i>			
No WJC within 1km	55,323	29,432	25,891
WJC within 1km	9,040	8,965	75
No WJC within 5km	38,603	13,841	24,762
WJC within 5km	25,760	24,556	1,204
Total of women	64,363	38,397	25,966
<i>Panel A.2: Number of women by exposure to a WJC center (All data)</i>			
No WJC in the district	61,946	28,540	33,406
WJC in the district	34,614	30,041	4,573
Total of women	96,560	58,581	37,979
	<b>Women: 15-49 years old</b>		
	Obs	Mean	Std. Dev.
<i>Panel B: Women's Summary Statistics</i>			
Domestic violence last 12 months	64,363	0.390	0.487
Emotional violence	64,363	0.323	0.467
Less severe violence	64,363	0.376	0.484
Severe violence	64,363	0.174	0.379
Sexual violence	64,363	0.093	0.291
<i>Women's Characteristics</i>			
Age	64,363	33.93	8.336
Age at first marriage	64,363	20.14	4.739
# Total children ever born	64,363	2.811	1.993
# Years of education	64,363	8.577	4.481
# Household Members	64,363	4.626	1.818
Married	64,363	0.356	0.478
Living together	64,363	0.517	0.499
Widowed	64,363	0.007	0.089
Divorced	64,363	0.118	0.319
Urban cluster	64,363	0.596	0.490

*Notes:* The GPS data was not available for the years 2012 and 2013 in the Peru DHS. Source: Peru DHS (2006-2014)

Table 4: Placement of WJC Centers in the District

Dependent variables	WJC in district, by 2014		Added WJC in district during 2006-2014		
	(1)	(2)	(3)	(4)	(5)
# Criminal Attorney Offices	-0.022* (0.013)	-0.022* (0.013)	-0.050*** (0.015)	-0.050*** (0.015)	-0.050*** (0.015)
# Family Attorney Offices	0.090** (0.036)	0.089** (0.036)	0.110*** (0.040)	0.111*** (0.040)	0.109*** (0.040)
# Mixed Attorney Offices	0.106*** (0.033)	0.107*** (0.033)	0.069 (0.043)	0.071* (0.043)	0.070 (0.043)
# Criminal Courts	0.005 (0.018)	0.005 (0.018)	-0.001 (0.024)	-0.001 (0.024)	-0.001 (0.024)
# Family Courts	-0.093** (0.040)	-0.092** (0.040)	-0.126** (0.058)	-0.127** (0.058)	-0.125** (0.058)
# Mixed Courts	0.183*** (0.035)	0.181*** (0.035)	0.233*** (0.041)	0.233*** (0.042)	0.232*** (0.041)
# Police Stations	0.082*** (0.012)	0.083*** (0.012)	0.049*** (0.015)	0.048*** (0.015)	0.049*** (0.015)
# of Health Establishments	0.246*** (0.043)	0.247*** (0.042)	0.194*** (0.050)	0.193*** (0.049)	0.196*** (0.049)
Log. Population	0.017*** (0.005)	0.014** (0.006)	0.012** (0.005)	0.012** (0.005)	0.011* (0.006)
△ Primary Enrollment, (1998-2005)			0.0002 (0.0002)		0.0001 (0.0002)
△ Secondary Enrollment, (1998-2005)				0.00008 (0.00008)	0.00006 (0.00009)
CCT <i>Juntos</i> in the district		-0.010 (0.017)			-0.0001 (0.019)
# Households with CCT <i>Juntos</i> , 2014		0.00001 (0.00001)			0.00001 (0.00001)
Observations (Districts)	1,843	1,838	1,843	1,843	1,838
R-squared	0.703	0.702	0.535	0.534	0.535
Department FE	YES	YES	YES	YES	YES

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

*Notes:* This table shows the effects of district characteristics on WJC centers placement. The left hand side variable in Columns 1 is the number of WJC centers in the district by 2014; in Columns 2 to 4 it is whether any centers were added during the sample period 2006-2014. Standard errors are in parentheses, clustered at the district level. Source: MIMP (*Ministerio de la Mujer y Poblaciones Vulnerables*)

Table 5: The Effect of WJC Centers on Primary School Enrollment (2006-2014)

Dep. variable	<b>Log (Primary School Enrollment)</b>				
	All schools	All schools	All schools	Only urban schools	Ever WJC in district
Sample					
Controls	Standard	District trends	Standard	Standard	Standard
	(1)	(2)	(3)	(4)	(5)
<i>Panel A: WJC center within a distance buffer from the school</i>					
WJC within 1km	0.028*** (0.008)	0.027*** (0.008)	0.033*** (0.008)	0.032*** (0.008)	0.024** (0.010)
Log (District Population)			0.443*** (0.023)	0.424*** (0.031)	0.415*** (0.055)
Observations	315,221	315,221	315,221	119,232	103,662
Number of schools	36947	36947	36947	14405	12413
Mean dep. var	95.9	95.9	95.9	177.8	127.7
<i>Panel B: WJC center in the district of the school</i>					
WJC in the district	0.009* (0.005)	0.002 (0.004)	0.005 (0.005)	0.012** (0.006)	0.019** (0.009)
Log (District Population)			0.439*** (0.023)	0.417*** (0.031)	0.398*** (0.056)
Observations	315,407	315,407	315,407	119,270	103,730
Number of schools	36994	36994	36994	14412	12427
Mean dep. var	95.9	95.9	95.9	177.8	127.7
School FE	YES	YES	YES	YES	YES
Province*Year FE	YES	YES	YES	YES	YES
Covariates	YES	YES	YES	YES	YES
Robust standard errors in parentheses					
*** p<0.01, ** p<0.05, * p<0.1					

*Notes:* The dependent variable is the logarithm of enrollment plus one. The independent variables measures the number of WJC centers within a 1km Euclidean buffer from the school and presence of WJC center in school's district. Standard errors (in parentheses) are clustered at the school level. All regressions are weighted by initial school enrollment level. Covariates include school fixed effects, year fixed effects, year-by-province fixed effects, and a vector of controls of baseline school characteristics interacted with academic year (including initial school enrollment, presence of electricity, presence of piped water, school language (spanish), urban and public school dummy).Source: Peruvian School Census 2006-2014.



Table 6: The Effect of WJC Centers on Secondary School Enrollment (2006-2014)

Dep. variable	<b>Log (Secondary School Enrollment)</b>				
	All schools	All schools	All schools	Only urban schools	Ever WJC in district
Sample					
Controls	Standard	District trends	Standard	Standard	Standard
	(1)	(2)	(3)	(4)	(5)
<i>Panel A: WJC center within a distance buffer from the school</i>					
WJC within 1km	0.029** (0.012)	0.017 (0.014)	0.030** (0.012)	0.034*** (0.013)	-0.005 (0.019)
Log (District Population)			0.427*** (0.038)	0.426*** (0.043)	0.442*** (0.082)
Observations	102,685	102,685	102,685	69,686	41,324
Number of schools	12809	12809	12809	8516	5175
Mean dep. var	174.8	174.8	174.8	215.3	195.3
<i>Panel B: WJC center in the district of the school</i>					
WJC in the district	0.023*** (0.008)	-0.004 (0.008)	0.014* (0.008)	0.019** (0.008)	-0.005 (0.013)
Log (District Population)			0.420*** (0.038)	0.417*** (0.043)	0.448*** (0.083)
Observations	102,691	102,691	102,691	69,692	41,324
Number of schools	12811	12811	12811	8518	5175
Mean dep. var	174.8	174.8	174.8	215.3	195.3
School FE	YES	YES	YES	YES	YES
Province*Year FE	YES	YES	YES	YES	YES
Covariates	YES	YES	YES	YES	YES
Robust standard errors in parentheses					
*** p<0.01, ** p<0.05, * p<0.1					

*Notes:* The dependent variable is the logarithm of enrollment plus one. The independent variables measures the number of WJC centers within a 1km Euclidean buffer from the school and presence of WJC center in school's district. Standard errors (in parentheses) are clustered at the school level. All regressions are weighted by initial school enrollment level. Covariates include school fixed effects, year fixed effects, year-by-province fixed effects, and a vector of controls of baseline school characteristics interacted with academic year (including initial school enrollment, presence of electricity, presence of piped water, school language (spanish), urban and public school dummy).Source: Peruvian School Census 2006-2014.

Table 7: The Effect of WJC Centers on Primary Level 2nd Grade Test Scores - (2006-2014)

Dep. variable Sample	Standardized Test Scores (2nd Grade)			
	All schools	All schools	Only urban schools	Ever WJC in district
Controls	Standard (1)	District trends (2)	Standard (3)	Standard (4)

*Panel A: WJC center within a distance buffer from the school*

WJC within 1km	0.028* (0.017)	0.018 (0.019)	0.040** (0.018)	0.027 (0.021)
Observations	181,240	181,240	92,666	69,822
Number of schools	29737	29737	13507	10858
Mean dep. var	508.9	508.9	536.9	526.9

*Panel B: WJC center in the district of the school*

WJC in the district	0.026** (0.011)	-0.020 (0.016)	0.050*** (0.013)	0.050*** (0.016)
Observations	181,279	181,279	92,681	69,838
Number of schools	29747	29747	13510	10862
Mean dep. var	508.9	508.9	537.0	527.0
School FE	YES	YES	YES	YES
Province*Year FE	YES	YES	YES	YES
Covariates	YES	YES	YES	YES

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Notes:* The dependent variable is the average of the standardized reading and math test scores for 2nd grade of primary school. The independent variables measures the number of WJC centers within a 1km Euclidean buffer from the school and presence of WJC center in school's district. Standard errors (in parentheses) are clustered at the school level. All regressions are weighted by initial school enrollment level. Covariates include school fixed effects, year fixed effects, year-by-province fixed effects, and a vector of controls of baseline school characteristics interacted with academic year (including initial school enrollment, presence of electricity, presence of piped water, school language (spanish), urban and public school dummy). Source: Peru ECE 2007-2014.

Table 8: Placebo regressions, Impact of Future WJC Centers on Primary School Enrollment

Dep. variable Sample	<b>Log (Primary School Enrollment)</b>			
	All schools	All schools	Only urban schools	Ever WJC in district
Controls	Standard (1)	District trends (2)	Standard (3)	Standard (4)
<i>Panel A: WJC center within a distance buffer from the school</i>				
WJC within 1km, $t$	0.024*** (0.008)	0.023*** (0.007)	0.027*** (0.008)	0.019** (0.009)
WJC within 1km, $t + 1$	0.004 (0.006)	0.005 (0.006)	0.003 (0.007)	0.006 (0.007)
WJC within 1km, $t + 2$	0.002 (0.006)	-0.002 (0.006)	-0.003 (0.007)	0.002 (0.008)
WJC within 1km, $t + 3$	0.004 (0.008)	0.011 (0.008)	0.004 (0.009)	-0.002 (0.010)
Observations	315,221	315,221	119,232	103,518
Number of schools	36947	36947	14405	12398
P-value joint test	0.987	0.493	0.831	0.767
Mean dep. var	95.9	95.9	177.8	127.7
<i>Panel B: WJC center in the district of the school</i>				
WJC in the district, $t$	0.008* (0.004)	0.000 (0.004)	0.017*** (0.006)	0.029*** (0.008)
WJC in the district, $t + 1$	0.002 (0.004)	-0.000 (0.004)	0.006 (0.005)	-0.002 (0.006)
WJC in the district, $t + 2$	0.003 (0.004)	-0.001 (0.004)	0.001 (0.005)	0.015** (0.006)
WJC in the district, $t + 3$	-0.007 (0.005)	-0.009** (0.004)	-0.004 (0.006)	-0.012 (0.008)
Observations	315,407	315,407	119,270	103,586
Number of schools	36994	36994	14412	12412
P-value joint test	0.200	0.148	0.408	0.071
Mean dep. var	95.9	95.9	177.8	127.7
School FE	YES	YES	YES	YES
Province*Year FE	YES	YES	YES	YES
Covariates	YES	YES	YES	YES

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

*Notes:* The dependent variable is the logarithm of enrollment plus one. The independent variable measures the presence of a WJC center within 1km/in the district in year  $t$  and controls for openings of future WJC centers in year  $t + 1$ ,  $t + 2$  and  $t + 3$ . All regressions are weighted by initial school enrollment level. Covariates include school fixed effects, year fixed effects, year-by-province fixed effects, and a vector of controls of baseline school characteristics interacted with academic year (including initial school enrollment, presence of electricity, presence of piped water, school language (spanish), urban and public school dummy). Source: Peruvian School Census: 2006-2014.

Table 9: Placebo regressions, Impact of Future WJC centers on Secondary School Enrollment

Dep. variable Sample	Log (Secondary School Enrollment)			
	All schools	All schools	Only urban schools	Ever WJC in district
Controls	Standard (1)	District trends (2)	Standard (3)	Standard (4)
<i>Panel A: WJC center within a distance buffer from the school</i>				
WJC within 1km, $t$	0.033*** (0.012)	0.023* (0.013)	0.039*** (0.013)	0.006 (0.019)
WJC within 1km, $t + 1$	-0.017 (0.013)	-0.017 (0.013)	-0.020 (0.014)	-0.032* (0.018)
WJC within 1km, $t + 2$	0.010 (0.013)	0.008 (0.014)	0.004 (0.014)	0.008 (0.020)
WJC within 1km, $t + 3$	0.014 (0.014)	0.011 (0.014)	0.023 (0.015)	0.013 (0.020)
Observations	102,685	102,685	69,686	41,277
Number of schools	12809	12809	8516	5170
P-value joint test	0.162	0.215	0.073	0.163
Mean dep. var	174.8	174.8	215.3	195.3
<i>Panel B: WJC center in the district of the school</i>				
WJC in the district, $t$	0.026*** (0.007)	0.002 (0.008)	0.032*** (0.008)	0.015 (0.012)
WJC in the district, $t + 1$	-0.013* (0.007)	-0.018** (0.007)	-0.008 (0.008)	-0.014 (0.011)
WJC in the district, $t + 2$	0.008 (0.008)	0.002 (0.008)	0.003 (0.009)	0.009 (0.013)
WJC in the district, $t + 3$	0.010 (0.009)	-0.002 (0.008)	0.010 (0.011)	0.009 (0.015)
Observations	102,691	102,691	69,692	41,277
Number of schools	12811	12811	8518	5170
P-value joint test	0.047	0.119	0.314	0.288
Mean dep. var	174.8	174.8	215.3	195.3
School FE	YES	YES	YES	YES
Province*Year FE	YES	YES	YES	YES
Covariates	YES	YES	YES	YES

Robust standard errors in parentheses

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ 

*Notes:* The dependent variable is the logarithm of enrollment plus one. The independent variable measures the presence of a WJC center within 1km/in the district in year  $t$  and controls for openings of future WJC centers in year  $t + 1$ ,  $t + 2$  and  $t + 3$ . All regressions are weighted by initial school enrollment level. Covariates include school fixed effects, year fixed effects, year-by-province fixed effects, and a vector of controls of baseline school characteristics interacted with academic year (including initial school enrollment, presence of electricity, presence of piped water, school language (spanish), urban and public school dummy). Source: Peruvian School Census: 2006-2014.

Table 10: The Effect of WJC Centers on Children's Primary School Attendance - (2006-2014)

Dep. variable Sample	Currently Attending Primary Level			
	All children 6-11 y.o	All children 6-11 y.o	Only urban clusters	Ever WJC in district
Controls	Standard (1)	District trends (2)	Standard (3)	Standard (4)
<i>Panel A: WJC center within a distance buffer from the cluster of residence</i>				
WJC within 1km	0.019** (0.008)	0.018* (0.009)	0.027*** (0.009)	0.023*** (0.008)
Observations	48,703	48,703	25,391	19,563
Number of districts	1159	1159	485	215
Mean dep. var	0.970	0.970	0.971	0.969
<i>Panel B: WJC center in the district of residence</i>				
WJC in the district	0.005 (0.007)	-0.005 (0.011)	0.016** (0.008)	0.022** (0.009)
Observations	71,866	71,866	38,330	29,051
Number of districts	1286	1286	531	225
Mean dep. var	0.970	0.970	0.970	0.967
District FE	YES	YES	YES	YES
Province*Year FE	YES	YES	YES	YES
Covariates	YES	YES	YES	YES
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1				

*Notes:* The dependent variable is a dummy indicating whether the child is currently attending primary school. The independent variables measures the presence of a WJC within a 1km Euclidean buffer of the child's cluster of residence and presence of a WJC center in the child's district. Robust standard errors (in parentheses) are clustered at the district level. The sample includes children between the ages of 6 and 11. Covariates include age, gender, household's head years of education, number of children in the household aged 0-18, number of children in the household aged 0-5, number of female adults, number of male adults, rural residence dummy, district fixed effect and province-by-year fixed effect. Source: Peru DHS 2006-2014.

Table 11: The Effect of WJC Centers on Children's Secondary School Attendance - (2006-2014)

Dep. variable Sample	<b>Currently Attending Secondary Level</b>			
	All children 12-16 y.o	All children 12-16 y.o	Only urban clusters	Ever WJC in district
Controls	Standard (1)	District trends (2)	Standard (3)	Standard (4)
<i>Panel A: WJC center within a distance buffer from the cluster of residence</i>				
WJC within 1km	0.022* (0.012)	0.027* (0.014)	0.029** (0.012)	0.027** (0.013)
Observations	33,519	33,519	18,266	13,570
Number of clusters	1140	1140	480	215
Mean dep. var	0.895	0.895	0.916	0.908
<i>Panel B: WJC center in the district of residence</i>				
WJC in the district	0.012 (0.016)	0.039** (0.018)	0.027 (0.020)	0.036 (0.024)
Observations	49,461	49,461	27,482	20,275
Number of districts	1270	1270	528	224
Mean dep. var	0.896	0.896	0.913	0.904
District FE	YES	YES	YES	YES
Province*Year FE	YES	YES	YES	YES
Covariates	YES	YES	YES	YES
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1				

*Notes:* The dependent variable is a dummy indicating whether the child is currently attending secondary school. The independent variables measures the presence of a WJC within a 1km Euclidean buffer of the child's cluster of residence and presence of a WJC center in the child's district. Robust standard errors (in parentheses) are clustered at the district level. The sample includes children between the ages of 12 and 16. Covariates include age, gender, household's head years of education, number of children in the household aged 0-18, number of children in the household aged 0-5, number of female adults, number of male adults, rural residence dummy, district fixed effect and province-by-year fixed effect. Source: Peru DHS 2006-2014.

Table 12: School Attendance Status and Proximity to a WJC center - (2006-2014)

Sample Dep. variables	Primary School Attendance Status Children: 6-11 years old				Secondary School Attendance Status Children: 12-16 years old			
	Passed grade (1)	Repeated grade (2)	Dropped out (3)	Left school +2 years ago (4)	Passed grade (5)	Repeated grade (6)	Dropped out (7)	Left school +2 years ago (8)
<i>Sample A: All Children</i>								
WJC within 1km	0.020** (0.010)	-0.004 (0.005)	-0.018** (0.009)	0.001 (0.001)	0.020* (0.013)	-0.000 (0.005)	-0.017* (0.012)	-0.002 (0.009)
Observations	64,921	64,921	64,921	64,921	53,378	53,378	53,378	53,378
Number of districts	1165	1165	1165	1165	1161	1161	1161	1161
Mean dep. var.	0.917	0.048	0.023	0.002	0.778	0.036	0.094	0.085
<i>Sample B: Children of the women selected for the DV Module</i>								
WJC within 1km	0.023*** (0.008)	-0.006 (0.005)	-0.019*** (0.007)	0.001 (0.001)	0.030** (0.013)	-0.007 (0.005)	-0.018 (0.012)	-0.003 (0.009)
Observations	48,213	48,213	48,213	48,213	30,380	30,380	30,380	30,380
Number of districts	1155	1155	1155	1155	1135	1135	1135	1135
Mean dep. var.	0.919	0.048	0.022	0.002	0.782	0.038	0.090	0.084
District FE	YES	YES	YES	YES	YES	YES	YES	YES
Province-Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Covariates	YES	YES	YES	YES	YES	YES	YES	YES
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1								

*Notes:* The dependent variable is a dummy indicating the school attendance status of the child. The independent variables measures the presence of a WJC within a 1km Euclidean buffer of the child's cluster of residence. Robust standard errors (in parentheses) are clustered at the district level. The sample for primary level includes children between the ages of 6 and 11 and the sample for secondary level includes children between the ages of 12 and 16. Covariates include age, gender, household's head years of education, number of children in the household aged 0-18, number of children in the household aged 0-5, number of female adults, number of male adults, rural residence dummy, district fixed effect and province-by-year fixed effect. Source: Peru DHS 2006-2014.

Table 13: The Effect of WJC centers on Domestic Violence - (2006-2014)

Dep. variable	Domestic Violence in last 12 months			
	All women	All women	Only urban clusters	Ever WJC in district
Controls	Standard	District trends	Standard	Standard
	(1)	(2)	(3)	(4)
<i>Panel A: WJC center within a distance buffer from the cluster of residence</i>				
WJC within 1km	-0.022** (0.010)	-0.018* (0.011)	-0.029*** (0.010)	-0.017 (0.012)
Observations	64,363	64,363	38,395	27,996
Number of districts	1167	1167	485	215
Mean dep. var	0.390	0.390	0.399	0.397
<i>Panel B: WJC center in the district of residence</i>				
WJC in district	-0.024** (0.011)	-0.060*** (0.020)	-0.023* (0.014)	-0.032* (0.018)
Observations	96,560	96,560	58,579	42,393
Number of districts	1293	1293	531	225
Mean dep. var	0.387	0.387	0.397	0.394
District FE	YES	YES	YES	YES
Province*Year FE	YES	YES	YES	YES
Covariates	YES	YES	YES	YES
Robust standard errors in parentheses				
*** p<0.01, ** p<0.05, * p<0.1				

*Notes:* The dependent variable is a dummy indicating whether the women suffered any type of domestic violence (less severe, severe or sexual violence) during the last 12 months. The independent variables measures the presence of a WJC within a 1km Euclidean buffer of the women's cluster of residence and presence of WJC center in the women's district. Robust standard errors (in parentheses) are clustered at the district level. The sample includes women between the ages of 15 and 49. Women who were never married or never cohabited are excluded from the sample. Covariates include age, age at first marriage, number of children, years of education, number of household members, number of households in the dwelling, marital status (married=1), rural residence dummy, district fixed-effects and province-by-year fixed effects. Source: Peru DHS 2006-2014.



Table 14: Impact of WJC centers on Emotional Violence - (2006-2014)

Dep. variables	Emotional violence	Spouse ever humiliated	Spouse ever threatened with harm	Spouse ever threatened to take children
	(1)	(2)	(3)	(4)
<i>Sample A: All women 15-49 years old</i>				
WJC within 1km	-0.010 (0.010)	-0.002 (0.009)	-0.003 (0.006)	-0.017* (0.010)
Observations	64,364	64,364	64,364	64,364
Number of districts	1167	1167	1167	1167
Mean dep.var.	0.323	0.229	0.119	0.206
<i>Sample B: Only women in urban clusters</i>				
WJC within 1km	-0.018 (0.011)	-0.009 (0.010)	-0.007 (0.007)	-0.024** (0.011)
Observations	38,396	38,396	38,396	38,396
Number of districts	485	485	485	485
Mean dep.var.	0.337	0.239	0.114	0.219
District FE	YES	YES	YES	YES
Province*Year FE	YES	YES	YES	YES
Covariates	YES	YES	YES	YES
Robust standard errors in parentheses				
*** p<0.01, ** p<0.05, * p<0.1				

*Notes:* The dependent variable is a dummy indicating whether the women suffered any type of emotional violence during the last 12 months. The independent variables measures the presence of a WJC within a 1km Euclidean buffer of the women's cluster of residence. Robust standard errors (in parentheses) are clustered at the district level. The sample includes women between the ages of 15 and 49. Women who were never married or never cohabited are excluded from the sample. Covariates include age, age at first marriage, number of children, years of education, number of household members, number of households in the dwelling, marital status (married=1), rural residence dummy, district fixed-effects and province-by-year fixed effects. Source: Peru DHS 2006-2014.

Table 15: Impact of WJC centers on Femicides and Female Hospitalization For Assault

Dep. var.	# Femicides in department 2009-2014		Log(# Female Hospitalizations for Assault) 2007-2014	
	(1)	(2)	(3)	(4)
# WJC centers in the department	-0.388** (0.161)	-0.418** (0.185)		
# WJC centers in the district			-0.074** (0.031)	-0.075** (0.031)
Log (Population)		-19.132 (28.484)		-0.057 (0.051)
Observations	150	150	7,384	7,372
Number of clusters	25	25	1846	1843
Mean dep. var.	4.99	4.99	0.080	0.080
Department FE	YES	YES	NO	NO
District FE	NO	NO	YES	YES
Year FE	YES	YES	YES	YES
Province-Year FE	NO	NO	YES	YES

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

*Notes:* The dependent variable number of femicides at the department level was obtained from Peru's Crime Observatory at the Ministry of Public Affairs. Female hospitalization for assault at the district level was obtained from the Peruvian Ministry of Health. The sample of female hospitalizations for assault includes women between the ages of 18 and 59 and covers the rounds 2007, 2012, 2013 and 2014.

Table 16: The Effect of WJC centers on Femicides at the District Level - (2009-2015)

Dep. var Sample	Log(# Femicides)					
	All (1)	All (2)	Age 0-19 (3)	Age 20-39 (4)	Age 40-59 (5)	Age 60+ (6)
# WJC centers in the district	-0.008 (0.015)	-0.008 (0.015)	0.012 (0.008)	-0.021* (0.012)	0.003 (0.008)	0.002 (0.001)
Log (District population)		0.023 (0.036)	-0.015 (0.022)	0.017 (0.026)	0.015 (0.018)	0.012* (0.007)
Observations	12,915	12,894	12,894	12,894	12,894	12,894
Number of districts	1845	1842	1842	1842	1842	1842
Mean dep. var	0.058	0.058	0.010	0.035	0.010	0.001
District FE	YES	YES	YES	YES	YES	YES
Province-Year FE	YES	YES	YES	YES	YES	YES

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

*Notes:* The dependent variable number of femicides at the district level was obtained from Peru's Crime Observatory at the Ministry of Public Affairs.

Table 17: The Effect of WJC centers on Type of Institution Women Choose to Seek Help from Domestic Violence Events- (2006-2014)

Sought institutional help after domestic violence event									
Police Station	Justice Court	District Attorney Office	DEMUNA	WJC Center	Ombudsman Office	Health Facility	NGO	Other	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Sample A: All Married or cohabiting women 15-49 years old									
WJC within 1km	-0.019*** (0.007)	-0.001 (0.002)	-0.002 (0.002)	0.002 (0.003)	0.004* (0.002)	-0.00009 (0.0005)	-0.001 (0.002)	0.00008 (0.0001)	0.002 (0.002)
Observations	64,363	64,363	64,363	64,363	64,363	64,363	64,363	64,363	
Number of districts	1167	1167	1167	1167	1167	1167	1167	1167	
Mean dep. var	0.089	0.019	0.011	0.014	0.004	0.0009	0.008	0.0001	0.014
Sample B: Only married or cohabiting women 15-49 years old who have suffered domestic violence									
WJC within 1km	-0.036* (0.020)	-0.0004 (0.004)	-0.008 (0.006)	0.004 (0.009)	0.009* (0.005)	-0.0002 (0.002)	0.00008 (0.004)	0.00008 (0.0001)	-0.003 (0.005)
Observations	25,090	25,090	25,090	25,090	25,090	25,090	25,090	25,090	
Number of districts	1110	1110	1110	1110	1110	1110	1110	1110	
Mean dep. var	0.193	0.043	0.026	0.033	0.011	0.002	0.019	0.0003	0.029
District FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Province-Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Covariates	YES	YES	YES	YES	YES	YES	YES	YES	YES
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1									

Notes: Source: Peru DHS 2006-2014. DEMUNA is the acronym for "Defensoria Municipal del Niño y el Adolescente" or "Municipal Defense Centers for Children and Adolescents"

Table 18: Impact of WJC centers on Decision Making and Bargaining Power in the Household  
- (2006-2014)

Dep. variable	<b>Joint decision-making</b>		
	score (0-6) (1)	score (0-1) (2)	dummy(0/1) (3)
<i>Sample: Married or cohabiting women 15-49 years old</i>			
WJC within 1km	0.040 (0.047)	0.007 (0.008)	0.017* (0.009)
Observations	72,009	72,009	72,009
Number of clusters	1168	1168	1168
Mean dep.var.	2.238	0.373	0.798
Dep. variable	<b>Earnings compared to husband</b>		
	Earns more than husband	Earns Less than husband	Earns the same as husband
<i>Sample: Married or cohabiting women 15-49 years old</i>			
WJC within 1km	0.008 (0.011)	-0.034* (0.018)	0.029** (0.014)
Observations	33,767	33,767	33,767
Number of districts	1094	1094	1094
Mean dep.var.	0.125	0.676	0.189
District FE	YES	YES	YES
Province*Year FE	YES	YES	YES
Covariates	YES	YES	YES
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1			

*Notes:* In the DHS women are asked who makes decisions on a variety of household issues. For instance, a women is asked “*who makes the final decision on your own health care?*” “*who makes the final decision on large household purchases?*” etc. Responses include: respondent only, jointly with partner, and partner only. From these replies, we construct three measures of equal decision-making, that is, when the women makes decisions jointly with the partner. Robust standard errors (in parentheses) are clustered at the district level. The sample includes women between the ages of 15 and 49. Covariates include age, age at first marriage, number of children, years of education, number of household members, number of households in the dwelling, marital status (married=1), rural residence dummy, district fixed-effects and province-by-year fixed effects. Source: Peru DHS 2006-2014.

Table 19: Impact of WJC centers on Women's Labor Force Participation - (2006-2014)

Dep. variables	Currently working (1)	Works for family (2)	Works for someone else (3)	Self- employed (4)
<i>Sample A: All women 15-49 years old</i>				
WJC within 1km	-0.010 (0.010)	-0.004 (0.005)	-0.010 (0.008)	0.005 (0.007)
Observations	113,785	113,786	113,786	113,786
Number of clusters	1168	1168	1168	1168
Mean dep.var.	0.646	0.211	0.305	0.236
<i>Sample B: Married or cohabiting women selected for the DV module</i>				
WJC within 1km	-0.009 (0.014)	-0.004 (0.009)	-0.024 (0.017)	0.017 (0.011)
Observations	64,354	64,354	64,354	64,354
Number of districts	1167	1167	1167	1167
Mean dep.var.	0.684	0.209	0.269	0.300
District FE	YES	YES	YES	YES
Province*Year FE	YES	YES	YES	YES
Covariates	YES	YES	YES	YES
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1				

*Notes:* The dependent variable is a dummy indicating women's labor force participation during the last 12 months. The independent variables measures the presence of a WJC within a 1km Euclidean buffer of the women's cluster of residence. Robust standard errors (in parentheses) are clustered at the district level. The sample includes women between the ages of 15 and 49. Covariates include age, age at first marriage, number of children, years of education, number of household members, number of households in the dwelling, marital status (married=1), rural residence dummy, district fixed-effects and province-by-year fixed effects. Source: Peru DHS 2006-2014.

Table 20: Relationship between WJCs within 1km rollout and pre-program school enrollment

	Schools matched to WJC within 1km, Pre-WJC period					
	$\Delta \text{Log(Primary School Enrollment)}$			$\Delta \text{Log(Secondary School Enrollment)}$		
	(1)	(2)	(3)	(4)	(5)	(6)
	$\Delta 98-00$	$\Delta 98-05$	$\Delta 98-10$	$\Delta 98-00$	$\Delta 98-05$	$\Delta 98-10$
WJC within 1km in 2002	0.028 (0.032)			0.060 (0.047)		
WJC within 1km in 2003	-0.016 (0.036)			0.042 (0.050)		
WJC within 1km in 2004	-0.021 (0.035)			-0.070 (0.054)		
WJC within 1km in 2005	-0.054 (0.156)			-0.207*** (0.066)		
WJC within 1km in 2006	-0.014 (0.031)			-0.048 (0.056)		
WJC within 1km in 2007	-0.011 (0.029)	0.004 (0.015)		-0.020 (0.046)	0.013 (0.028)	
WJC within 1km in 2008	-0.006 (0.029)	0.032 (0.035)		-0.032 (0.045)	0.041 (0.027)	
WJC within 1km in 2009	-	-		-	-	
WJC within 1km in 2010	-0.034 (0.028)	0.008 (0.015)		0.003 (0.045)	0.036 (0.027)	
WJC within 1km in 2011	-0.022 (0.027)	0.005 (0.015)		-0.052 (0.045)	0.032 (0.025)	
WJC within 1km in 2012	0.002 (0.035)	0.017 (0.017)	0.005 (0.009)	-0.016 (0.043)	0.019 (0.029)	0.000 (0.013)
WJC within 1km in 2013	-0.029 (0.029)	0.017 (0.016)	0.009 (0.011)	-0.007 (0.045)	0.026 (0.033)	0.004 (0.018)
WJC within 1km in 2014	-0.021 (0.031)	0.007 (0.020)	0.004 (0.011)	-0.003 (0.043)	0.066** (0.026)	0.031* (0.016)
Observations	2,190	6,372	6,157	1,115	3,400	3,540
Number of schools	1179	1247	678	607	710	404
Year FE	YES	YES	YES	YES	YES	YES
P-value joint test	0.536	0.275	0.925	0.001	0.148	0.197

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

*Notes:* Standard errors that allow for clustering at the school level are reported in parentheses. The dependent variable in columns 1-6 is the change in the logarithm of school enrollment plus one. The observations correspond to three windows of pre-WJC center period for each school. All regressions include year fixed-effects.

Table 21: Relationship between WJCs in the district rollout and pre-program school attendance

	Districts matched to WJC locations, Pre-WJC $\Delta$ 1996-2005					
	$\Delta$ <b>Primary School</b>			$\Delta$ <b>Secondary School</b>		
	<b>Attendance</b>			<b>Attendance</b>		
	(1) $\Delta$ 96-00	(2) $\Delta$ 96-05	(3) $\Delta$ 96-10	(4) $\Delta$ 96-00	(5) $\Delta$ 96-05	(6) $\Delta$ 96-10
WJC in the district in 2002	0.002 (0.036)			-0.071 (0.060)		
WJC in the district in 2003	-0.056 (0.060)			0.032 (0.062)		
WJC in the district in 2004	-0.005 (0.036)			0.041 (0.082)		
WJC in the district in 2005	0.016 (0.036)			-0.051 (0.060)		
WJC in the district in 2006	-0.057 (0.052)			-0.078 (0.087)		
WJC in the district in 2007	-0.031 (0.040)	0.010 (0.015)		-0.065 (0.109)	0.033 (0.051)	
WJC in the district in 2008	-0.011 (0.039)	0.012 (0.014)		-0.008 (0.098)	-0.013 (0.046)	
WJC in the district in 2009	-	-	-	-	-	-
WJC in the district in 2010	-0.026 (0.040)	0.011 (0.014)	-0.009 (0.008)	-0.062 (0.071)	0.015 (0.045)	-0.013 (0.028)
WJC in the district in 2011	-0.034 (0.041)	-0.002 (0.016)	-0.016 (0.009)	0.030 (0.067)	0.008 (0.036)	-0.029 (0.024)
WJC in the district in 2012	0.012 (0.039)	0.020 (0.014)	0.006 (0.008)	0.022 (0.076)	-0.040 (0.042)	-0.052 (0.041)
WJC in the district in 2013	-0.008 (0.049)	0.006 (0.021)	-0.012 (0.011)	0.055 (0.101)	0.002 (0.055)	-0.015 (0.030)
WJC in the district in 2014	-0.073 (0.076)	0.020 (0.054)	-0.007 (0.038)	-0.152 (0.125)	-0.049 (0.074)	-0.030 (0.054)
Observations	90	186	228	90	184	226
Number of districts	90	106	102	90	106	102
Year FE	YES	YES	YES	YES	YES	YES
P-value joint test	0.000	0.676	0.222	0.000	0.712	0.778

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

*Notes:* Standard errors that allow for clustering at the district level are reported in parentheses. The dependent variable in columns 1-6 is the change in school attendance rate at the district level. The observations correspond to three windows of pre-WJC center period for each district. All regressions include year fixed-effects.

Table 22: Relationship between WJCs within 1km rollout and four windows of pre-program standardized test scores (2nd grade - Primary School)

	Schools matched to WJC within 1km Pre-WJC period			
	$\Delta$ <b>Standardized Test Scores</b>			
	(1) $\Delta 07-09$	(2) $\Delta 07-10$	(3) $\Delta 07-11$	(4) $\Delta 07-12$
WJC within 1km in 2011	0.002 (0.034)			
WJC within 1km in 2012	0.045 (0.046)	-0.009 (0.029)		
WJC within 1km in 2013	-0.023 (0.066)	-0.029 (0.038)	-0.001 (0.034)	
WJC within 1km in 2014	0.042 (0.060)	-0.019 (0.039)	-0.009 (0.033)	-0.025 (0.034)
Observations	1,565	1,675	1,068	734
Number of schools	821	600	292	168
Year FE	YES	YES	YES	YES
P-value joint test	0.670	0.895	0.828	

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Notes:* Standard errors that allow for clustering at the school level are reported in parentheses. The dependent variable in columns 1-4 is the change in standardized reading and math z-scores at the school level. The observations correspond to the pre-WJC center period for each school, it includes all schools which are located within 1km of a WJC center which opened between 2010-2014, 2011-2014, 2012-2014 and 2013-2014. All regressions include year fixed-effects.



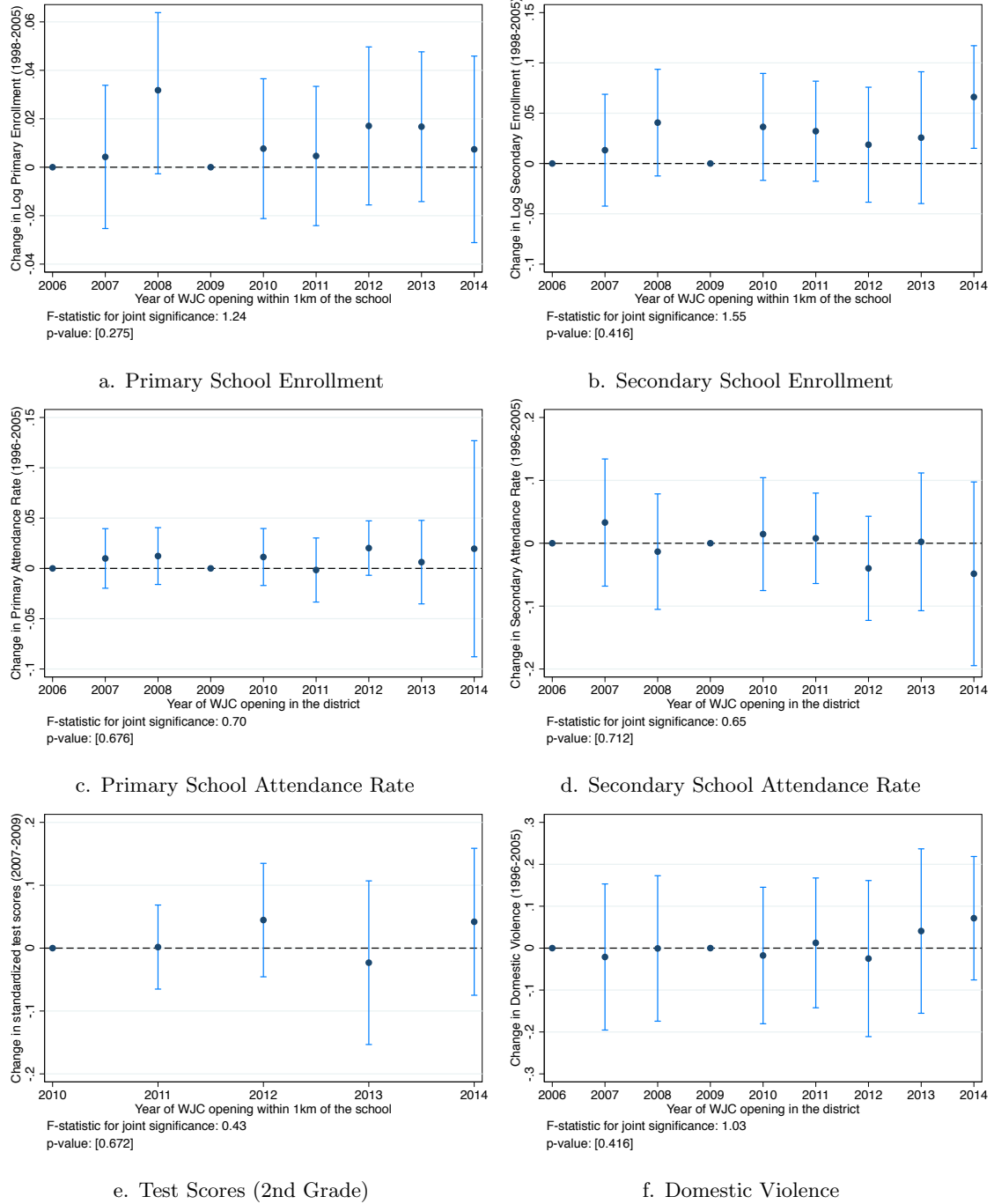
Table 23: Relationship between WJCs in the district and four windows of pre-program domestic violence

	Districts matched to WJC locations, Pre-WJC period			
	$\Delta$ Domestic violence in last 12 months			
	(1)	(2)	(3)	(4)
	$\Delta$ 2000-2005	$\Delta$ 2000-2008	$\Delta$ 2000-2010	$\Delta$ 2000-2013
WJC in the district in 2007	-0.021 (0.088)			
WJC in the district in 2008	-0.001 (0.087)			
WJC in the district in 2009	-	-		
WJC in the district in 2010	-0.018 (0.082)	-0.006 (0.035)		
WJC in the district in 2011	0.013 (0.078)	0.007 (0.034)	-0.026 (0.042)	
WJC in the district in 2012	-0.025 (0.093)	0.060 (0.041)	-0.011 (0.041)	
WJC in the district in 2013	0.041 (0.098)	0.013 (0.061)	0.005 (0.050)	
WJC in the district in 2014	0.071 (0.074)	0.119** (0.078)	-0.036 (0.042)	-0.016 (0.020)
Observations	105	161	239	128
Number of districts	78	99	83	38
Year FE	YES	YES	YES	YES
P-value joint test	0.416	0.103	0.433	-

Robust standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

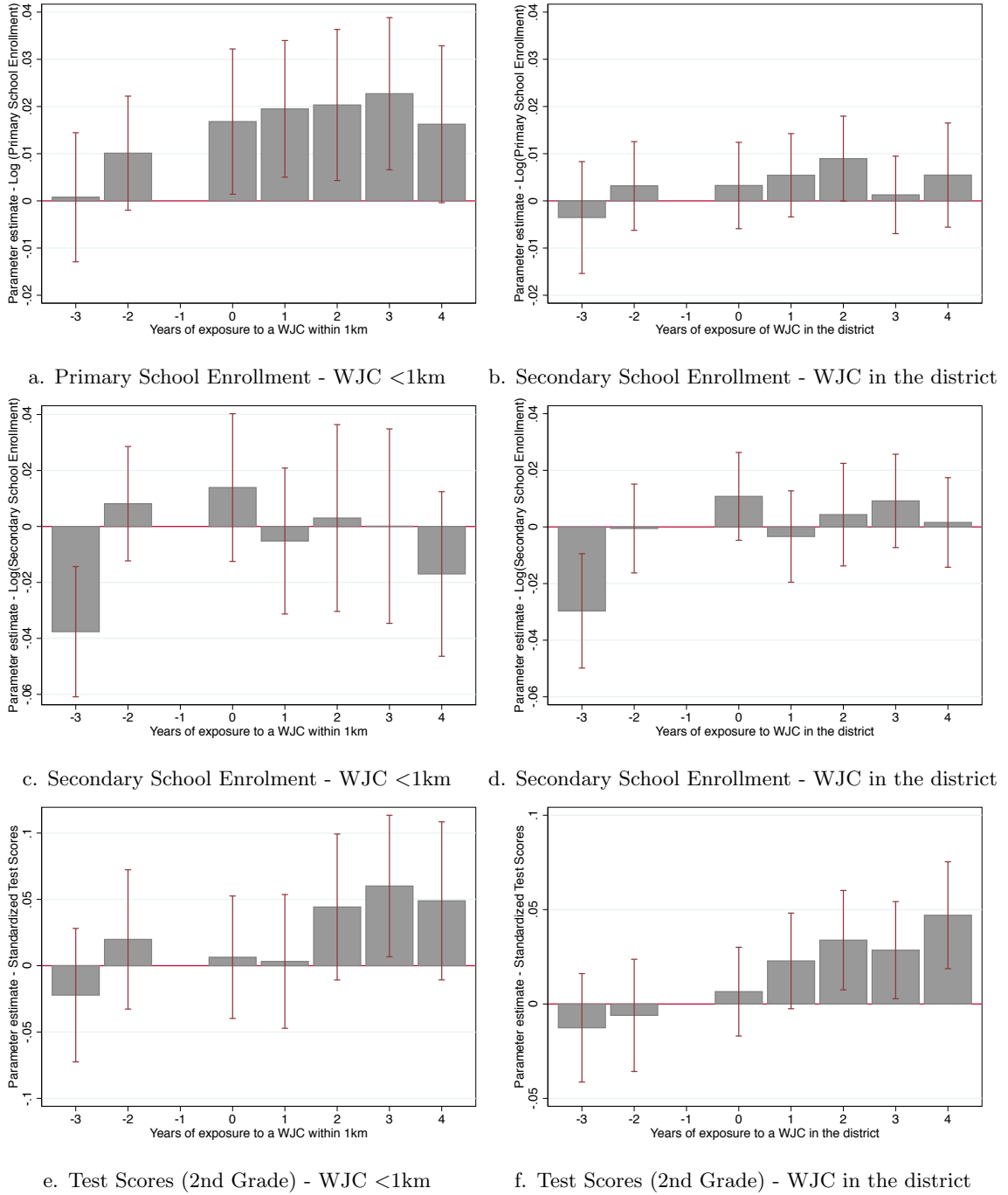
*Notes:* Standard errors that allow for clustering at the district level are reported in parentheses. The dependent variable in columns 1-4 is the change domestic violence at the district level. The observations correspond to the pre-program period of the WJC center rollout for each district, it includes all districts that ever had a WJC center which opened between 2006-2014, 2009-2014, 2010-2014 and 2013-2014. All regressions include year fixed-effects.

Figure 6: Effect of WJC center rollout on changes in pre-program outcomes



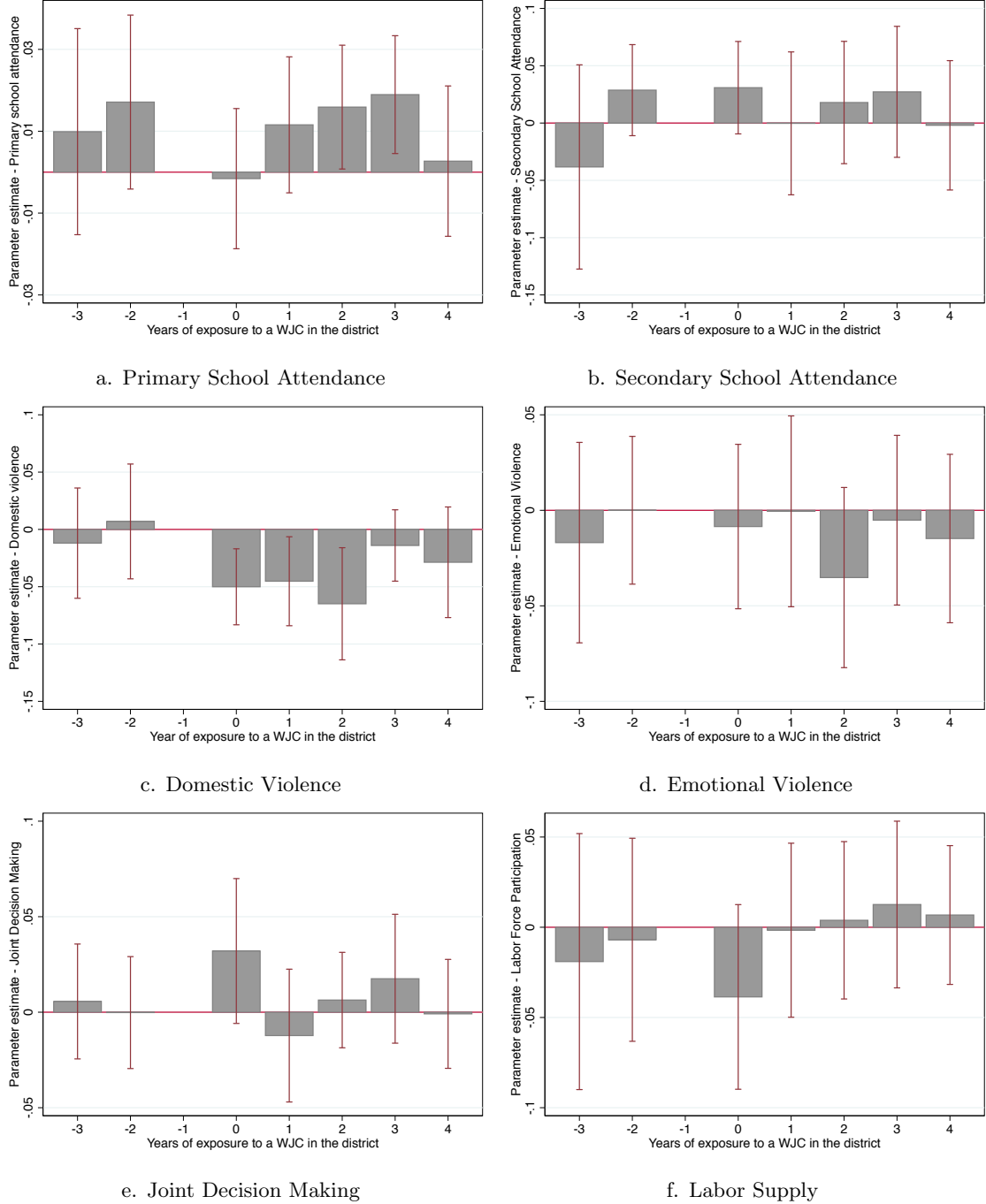
*Notes:* Figure shows coefficient estimates from changes in the outcomes of interest during the pre-program period on year of WJC center introduction indicators and year fixed effects.

Figure 7: Event Study: Pre-WJC and Post-WJC Trends in School Enrollment and Test Scores



*Notes:* These graphs plot the coefficient obtained from a regression of the outcomes on the interaction between presence of WJC within 1km/in the district and dummies for the years leading up to the opening of the WJC centers and years after the WJC introduction. Each bar represents the estimated coefficients and the capped, vertical line shows the estimated 95% confidence interval. Covariates include school fixed effects, year fixed effects, year-by-province fixed effects, and a vector of controls of baseline school characteristics interacted with academic year.

Figure 8: Event Study: Pre-WJC and Post-WJC Trends in Children's School Attendance and Women's Outcomes



*Notes:* These graphs plot the coefficient obtained from a regression of the outcomes on the interaction between presence of WJC within 1km/in the district and dummies for the years leading up to the opening of the WJC centers and years after the WJC introduction. Each bar represents the estimated coefficients and the capped, vertical line shows the estimated 95% confidence interval. Covariates include district fixed effects, year fixed effects, year-by-province fixed effects, and individual controls.

## APPENDIX

Figure A-1: Geographical Distribution of Primary Schools and WJC centers

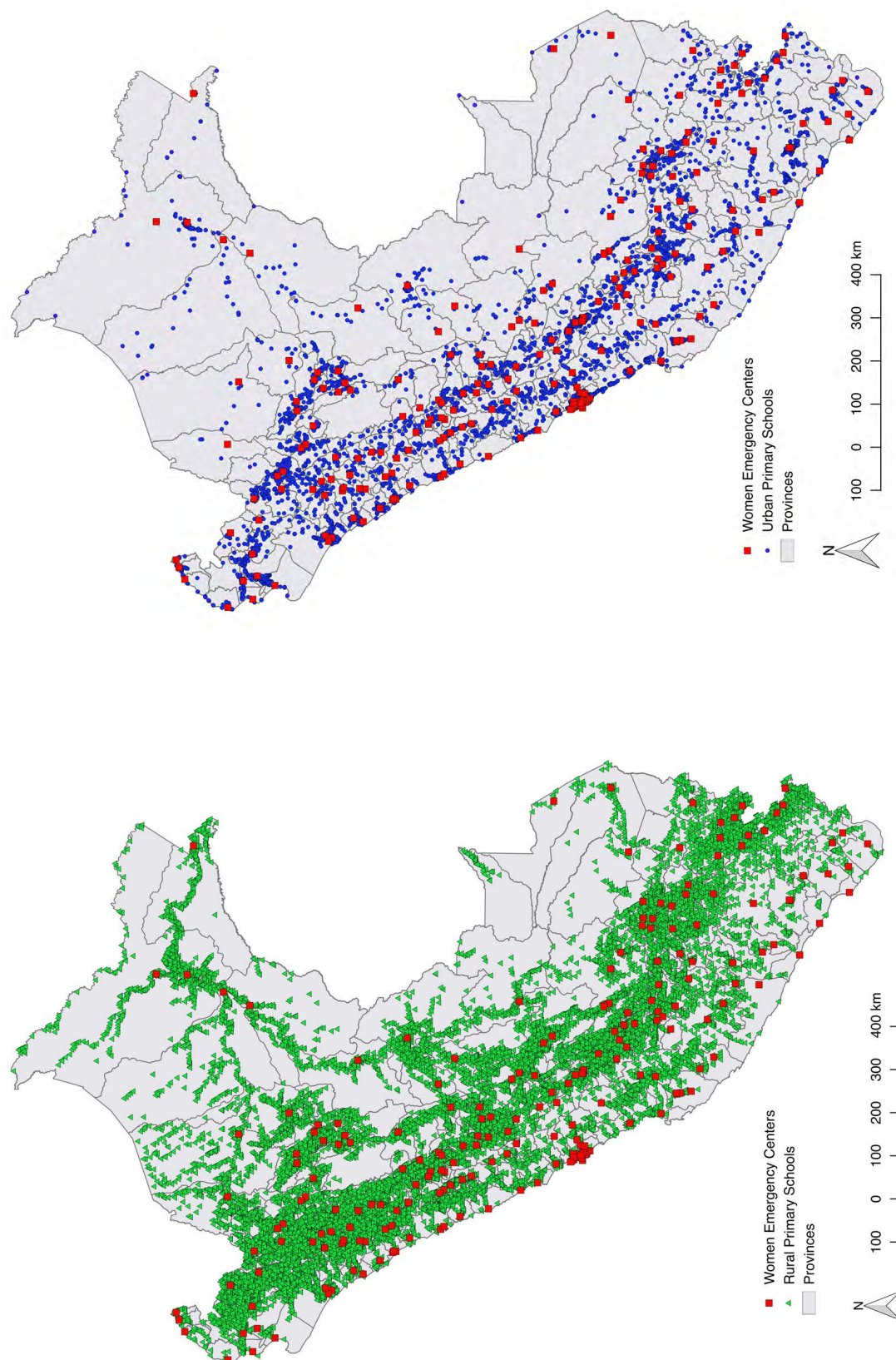




Figure A-2: Geographical Distribution of Secondary Schools and WJC centers

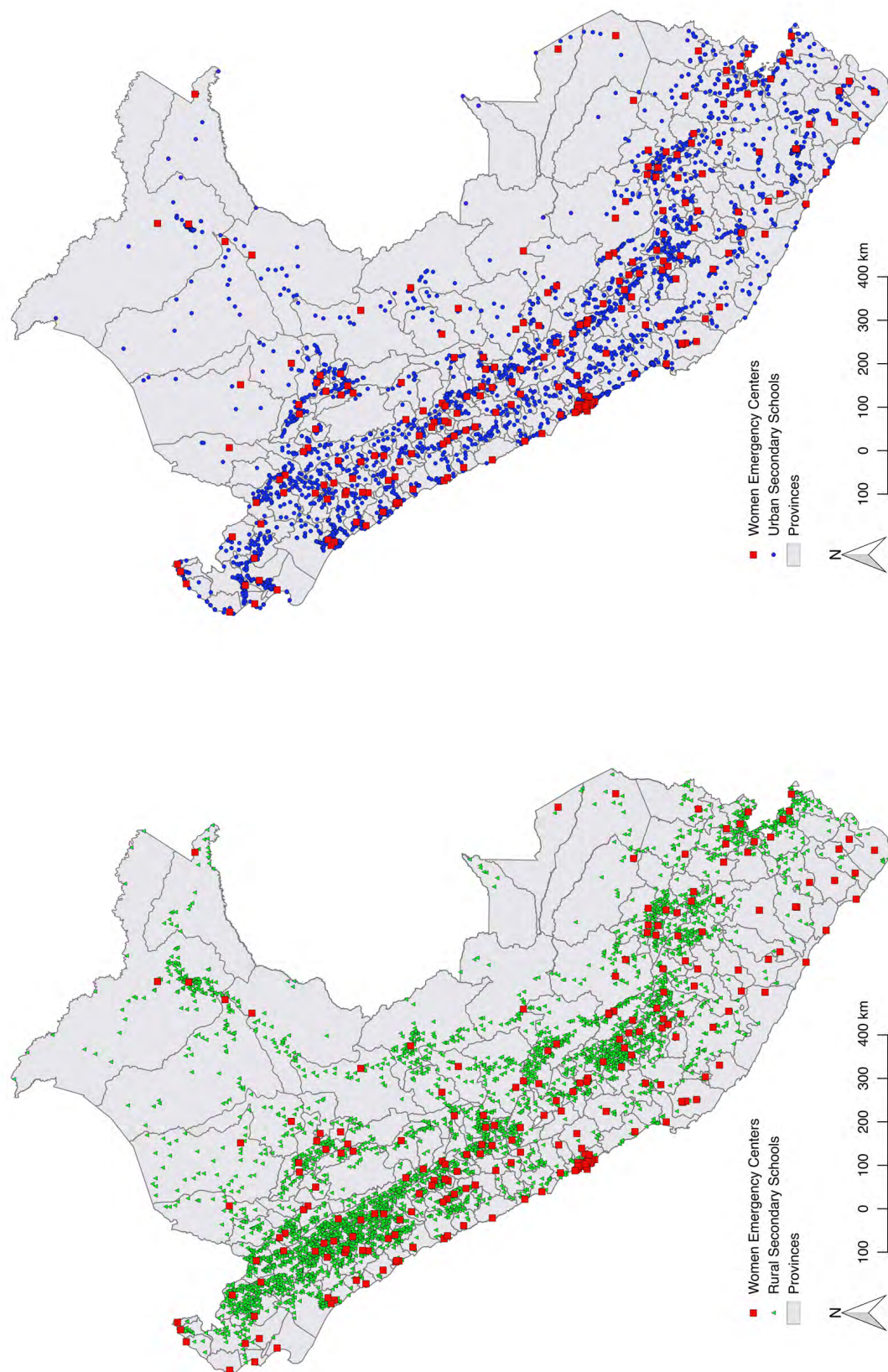


Figure A-3: Geographical Distribution of DHS clusters and WJC centers

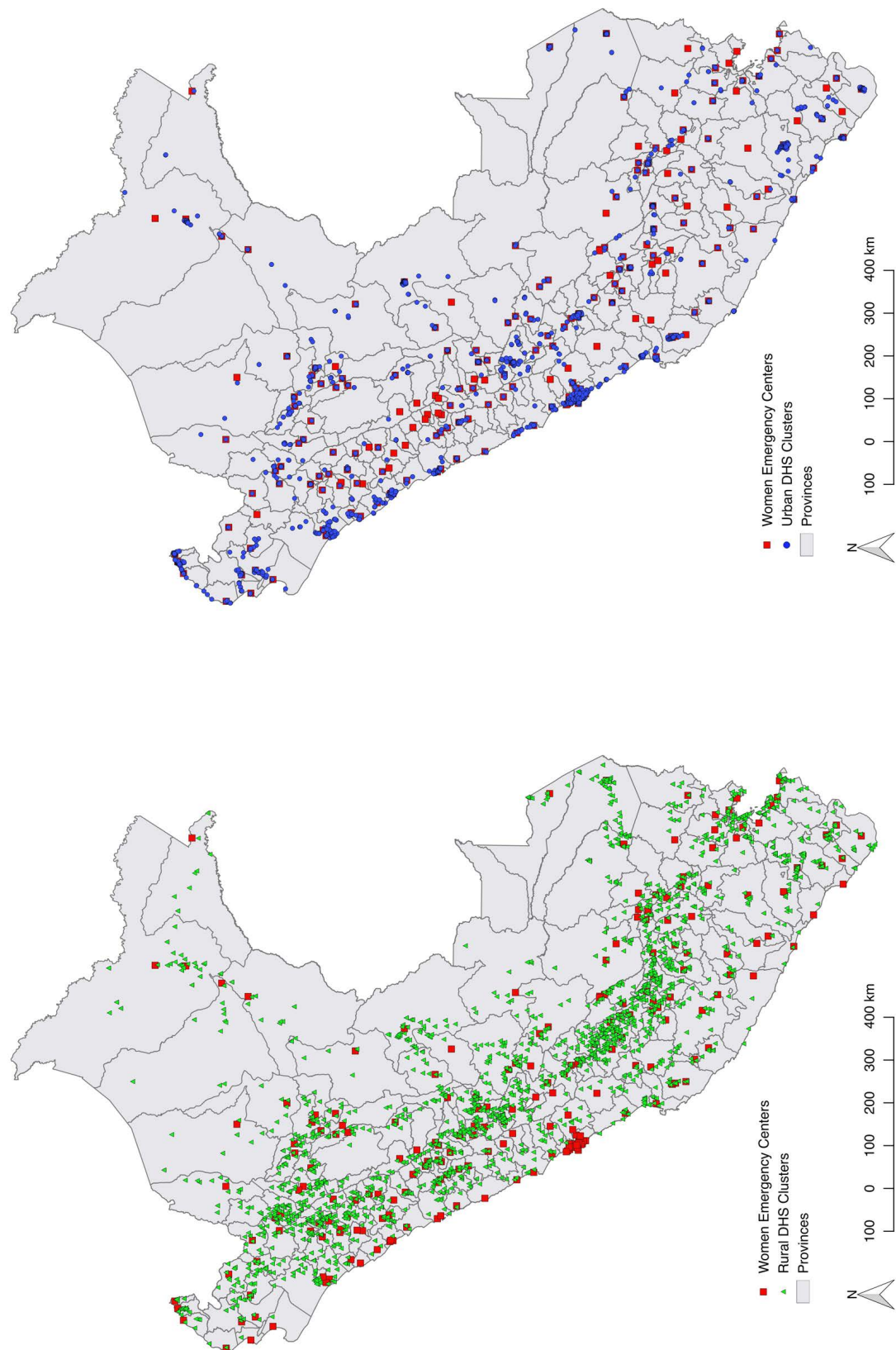




Table A-1: School Enrollment Effects by Gender and Grade

Dep. variable	School Enrollment					
	Primary Schools			Secondary Schools		
	Obs.	Mean	WJC within	Obs.	Mean	WJC within
			1km			1km
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A: Results for Schools by Gender</i>						
Log(Female enrollment)	315,221	46.9	0.033*** (0.010)	102,685	84.42	0.009 (0.017)
Log(Male enrollment)	315,221	49.9	0.021 (0.013)	102,685	90.40	0.067*** (0.014)
<i>Panel B: Results for Schools by Grade</i>						
Grade 1 enrollment	315,221	15.57	0.019* (0.010)	102,685	40.97	0.027** (0.014)
Grade 2 enrollment	315,221	17.08	0.030*** (0.009)	102,685	38.18	0.034** (0.014)
Grade 3 enrollment	315,221	16.55	0.026*** (0.009)	102,685	35.18	0.023 (0.015)
Grade 4 enrollment	315,221	16.07	0.031*** (0.009)	102,685	31.84	0.043** (0.018)
Grade 5 enrollment	315,221	15.70	0.023** (0.009)	102,685	28.64	0.044** (0.019)
Grade 6 enrollment	315,221	14.97	0.033*** (0.009)			
School FE			YES			YES
Province*Year FE			YES			YES
Covariates			YES			YES
Robust standard errors in parentheses						
*** p<0.01, ** p<0.05, * p<0.1						

*Notes:* The dependent variable is the logarithm of enrollment plus one. The independent variables measures the number of WJC centers within a 1km Euclidean buffer from the school and presence of WJC center in school's district. Standard errors (in parentheses) are clustered at the school level. All regressions are weighted by initial school enrollment level. Covariates include school fixed effects, year fixed effects, year-by-province fixed effects, and a vector of controls of baseline school characteristics interacted with academic year (including initial school enrollment, presence of electricity, presence of piped water, school language (spanish), urban and public school dummy).Source: Peruvian School Census 2006-2014.

Table A-2: School Enrollment and Children's School Attendance Status Effects by Gender

Dep. variable	Currently Attending School					
	Primary Level			Secondary Level		
	Children 6-11 y.o.			Children: 12-16 y.o.		
	WJC within			WJC within		
	Obs.	Mean	1km	Obs.	Mean	1km
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Sample: Female</i>						
School attendance	23,973	0.970	0.020** (0.009)	14,855	0.891	0.022 (0.019)
Passed grade	23,573	0.917	0.033*** (0.010)	12,808	0.781	0.031 (0.024)
Repeated grade	23,573	0.047	-0.010* (0.005)	12,808	0.028	-0.020 (0.009)
Dropped out	23,573	0.022	-0.025** (0.010)	12,808	0.088	-0.003 (0.018)
Left school +2 year ago	23,573	0.002	-0.0009 (0.001)	12,808	0.098	-0.006 (0.014)
<i>Sample: Male</i>						
School attendance	24,646	0.970	0.015* (0.008)	18,474	0.899	0.022 (0.015)
Passed grade	24,543	0.919	0.012 (0.009)	17,358	0.784	0.023 (0.021)
Repeated grade	24,543	0.050	-0.001 (0.008)	17,358	0.045	0.00007 (0.008)
Dropped out	24,543	0.021	-0.012* (0.007)	17,358	0.091	-0.032* (0.018)
Left school +2 year ago	24,543	0.002	0.001 (0.001)	17,358	0.074	0.009 (0.011)
District FE			YES			YES
Province*Year FE			YES			YES
Covariates			YES			YES

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

*Notes:* The dependent variable is a dummy indicating whether the child is currently attending primary or secondary school. The independent variables measures the presence of a WJC within a 1km Euclidean buffer of the child's cluster of residence. Robust standard errors (in parentheses) are clustered at the district level. The sample for primary level includes children between the ages of 6 and 11 and the sample for secondary level includes children between the ages of 12 and 16. Covariates include age, gender, household's head years of education, number of children in the household aged 0-18, number of children in the household aged 0-5, number of female adults, number of male adults, rural residence dummy, district fixed effect and province-by-year fixed effect. Source: Peru DHS 2006-2014.

Table A-3: The Effect of WJC Centers on Children's Primary School Attendance - (2006-2014)  
- Alternative Euclidean Buffers

Dep. variable Sample	Currently Attending Primary Level			
	All children 6-11 y.o	All children 6-11 y.o	Only urban clusters	Ever WJC in district
Controls	Standard (1)	District trends (2)	Standard (3)	Standard (4)
<i>Panel A: WJC center within a distance buffer from the cluster of residence</i>				
WJC within 3km	0.007 (0.011)	0.004 (0.012)	0.015 (0.014)	0.010 (0.016)
Observations	48,703	48,703	25,391	19,563
Number of districts	1159	1159	485	215
Mean dep. var	0.970	0.970	0.971	0.969
<i>Panel B: WJC center in the district of residence</i>				
WJC within 5km	-0.007 (0.008)	-0.004 (0.008)	0.005 (0.011)	0.006 (0.007)
Observations	48,703	48,703	25,391	19,563
Number of clusters	1159	1159	485	215
Mean dep. var	0.970	0.970	0.970	0.967
District FE	YES	YES	YES	YES
Province*Year FE	YES	YES	YES	YES
Covariates	YES	YES	YES	YES
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1				

*Notes:* The dependent variable is a dummy indicating whether the child is currently attending primary school. The independent variables measures the presence of a WJC within a 3km and 5km Euclidean buffer of the child's cluster of residence. Robust standard errors (in parentheses) are clustered at the district level. The sample includes children between the ages of 6 and 11. Covariates include age, gender, household's head years of education, number of children in the household aged 0-18, number of children in the household aged 0-5, number of female adults, number of male adults, rural residence dummy, district fixed effect and province-by-year fixed effect. Source: Peru DHS 2006-2014.

Table A-4: The Effect of WJC Centers on Children's Secondary School Attendance - (2006-2014)  
- Alternative Euclidean Buffers

Dep. variable Sample	Currently Attending Secondary Level			
	All children 12-16 y.o	All children 12-16 y.o	Only urban clusters	Ever WJC in district
Controls	Standard (1)	District trends (2)	Standard (3)	Standard (4)
<i>Panel A: WJC center within a distance buffer from the cluster of residence</i>				
WJC within 3km	0.008 (0.012)	0.009 (0.014)	0.016 (0.014)	0.012 (0.017)
Observations	33,519	33,519	18,266	13,570
Number of clusters	1140	1140	480	215
Mean dep. var	0.895	0.895	0.916	0.908
<i>Panel B: WJC center in the district of residence</i>				
WJC within 5km	-0.011 (0.013)	-0.001 (0.015)	-0.001 (0.016)	-0.003 (0.019)
Observations	33,519	33,519	18,266	13,570
Number of clusters	1140	1140	480	215
Mean dep. var	0.896	0.896	0.913	0.904
District FE	YES	YES	YES	YES
Province*Year FE	YES	YES	YES	YES
Covariates	YES	YES	YES	YES
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1				

*Notes:* The dependent variable is a dummy indicating whether the child is currently attending secondary school. The independent variables measures the presence of a WJC within a 3km and 5km Euclidean buffer of the child's cluster of residence. Robust standard errors (in parentheses) are clustered at the district level. The sample includes children between the ages of 12 and 16. Covariates include age, gender, household's head years of education, number of children in the household aged 0-18, number of children in the household aged 0-5, number of female adults, number of male adults, rural residence dummy, district fixed effect and province-by-year fixed effect. Source: Peru DHS 2006-2014.

Table A-5: Domestic Violence Effects by Age, Education Level and Type of Domestic Violence  
- (2006-2014)

Dep. variable	Domestic violence in last 12 months					
	Obs. (1)	Mean (2)	WJC within 1km (3)	Obs. (4)	Mean (5)	WJC in the district (6)
<i>Panel A: Results for Women by Age</i>						
Women 15-33 years old	31,442	0.349	-0.004 (0.018)	47,136	0.355	-0.013 (0.016)
Women 34-49 years old	32,886	0.402	-0.038*** (0.019)	49,380	0.418	-0.038*** (0.018)
<i>Panel B: Results for Women by Education Level</i>						
No education	2,254	0.374	-0.102 (0.110)	3,380	0.374	0.134 (0.119)
Primary Level	22,198	0.402	-0.035 (0.026)	32,844	0.390	-0.025 (0.024)
Secondary Level	24,989	0.415	-0.018 (0.015)	37,834	0.394	-0.042** (0.016)
Higher Level	14,033	0.331	-0.029* (0.016)	21,435	0.316	0.013 (0.025)
<i>Panel C: Results for Women by Type of Domestic Violence</i>						
Less severe violence	64,366	0.376	-0.029*** (0.010)	96,560	0.373	-0.018 (0.012)
Severe violence	64,366	0.171	-0.014* (0.009)	96,560	0.171	-0.006 (0.009)
Sexual violence	64,366	0.092	0.001 (0.006)	96,560	0.092	-0.007 (0.007)
District FE			YES			YES
Province-Year FE			YES			YES
Covariates			YES			YES

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Notes:* The dependent variable is a dummy indicating whether the women suffered any type of domestic violence (less severe, severe or sexual violence) during the last 12 months. The independent variables measures the presence of a WJC within a 1km Euclidean buffer of the women's cluster of residence. Robust standard errors (in parentheses) are clustered at the district level. The sample includes women between the ages of 15 and 49. Women who were never married or never cohabited are excluded from the sample. Covariates include age, age at first marriage, number of children, years of education, number of household members, number of households in the dwelling, marital status (married=1), rural residence dummy, district fixed-effects and province-by-year fixed effects. Source: Peru DHS 2006-2014.

Table A-6: Domestic Violence Effects by Childhood Domestic Violence and Wealth - (2006-2014) (Continuation)

Dep. variable	Domestic violence in last 12 months					
	WJC within			WJC in the		
	Obs.	Mean	1km	Obs.	Mean	district
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A: Results for Women by Childhood Domestic Violence</i>						
Father beat mother	29,052	0.475	-0.042** (0.018)	43,686	0.473	-0.014 (0.018)
Father did not beat mother	32,104	0.310	0.002 (0.015)	48,408	0.308	-0.022 (0.018)
<i>Panel B: Results for Women by Wealth Index</i>						
Poorest	14,599	0.357	0.016 (0.046)	21,672	0.352	-0.014 (0.030)
Poorer	16,540	0.418	-0.009 (0.030)	25,069	0.417	0.011 (0.031)
Middle	14,592	0.429	-0.037* (0.020)	21,855	0.425	-0.035 (0.032)
Richer	10,425	0.392	-0.008 (0.029)	15,862	0.390	-0.007 (0.027)
Richest	7,416	0.310	-0.040 (0.029)	11,186	0.308	-0.053 (0.033)
District FE			YES			YES
Province-Year FE			YES			YES
Covariates			YES			YES
Robust standard errors in parentheses						
*** p<0.01, ** p<0.05, * p<0.1						

*Notes:* The dependent variable is a dummy indicating whether the women suffered any type of domestic violence (less severe, severe or sexual violence) during the last 12 months. The independent variables measures the presence of a WJC within a 1km Euclidean buffer of the women's cluster of residence. Robust standard errors (in parentheses) are clustered at the district level. The sample includes women between the ages of 15 and 49. Women who were never married or never cohabited are excluded from the sample. Covariates include age, age at first marriage, number of children, years of education, number of household members, number of households in the dwelling, marital status (married=1), rural residence dummy, district fixed-effects and province-by-year fixed effects. Source: Peru DHS 2006-2014.

Table A-7: Relationship between WJCs centers within 1km and pre-program school enrollment

	Schools matched to WJC within 1km, Pre-WJC $\Delta$ 1998-2005					
	$\Delta$ Log(Primary School Enrollment)			$\Delta$ Log(Secondary School Enrollment)		
	(1) All	(2) Female	(3) Male	(4) All	(5) Female	(6) Male
WJC within 1km in 2006	<i>(excluded group)</i>					
WJC within 1km in 2007	0.004 (0.015)	0.023 (0.021)	-0.001 (0.016)	0.013 (0.028)	-0.015 (0.032)	-0.030 (0.035)
WJC within 1km in 2008	0.032 (0.029)	0.036 (0.022)	0.005 (0.019)	0.041 (0.027)	0.039 (0.027)	-0.012 (0.037)
WJC within 1km in 2009	-	-	-	-	-	-
WJC within 1km in 2010	0.008 (0.015)	0.027 (0.020)	-0.003 (0.015)	0.036 (0.027)	0.035 (0.027)	-0.018 (0.034)
WJC within 1km in 2011	0.005 (0.015)	0.020 (0.020)	-0.006 (0.016)	0.032 (0.025)	0.024 (0.026)	-0.028 (0.034)
WJC within 1km in 2012	0.017 (0.017)	0.032 (0.022)	0.012 (0.017)	0.019 (0.029)	0.016 (0.028)	-0.035 (0.037)
WJC within 1km in 2013	0.017 (0.016)	0.023 (0.023)	0.003 (0.020)	0.026 (0.033)	0.014 (0.032)	-0.028 (0.042)
WJC within 1km in 2014	0.007 (0.020)	0.024 (0.023)	0.005 (0.020)	0.066** (0.026)	0.062** (0.026)	-0.013 (0.038)
Observations	6,372	6,372	6,372	3,400	3,400	3,400
Number of schools	1247	1247	1247	710	710	710
Year FE	YES	YES	YES	YES	YES	YES
P-value joint test	0.275	0.847	0.966	0.148	0.192	0.974
Robust standard errors in parentheses						
*** p<0.01, ** p<0.05, * p<0.1						

*Notes:* The dependent variable in columns 1-6 is the change in the logarithm of school enrollment plus one between 1998-2005. The observations correspond to the pre-WJC center period for each school (1998-2005), it includes all schools that are located within a 1km Euclidean buffer of a WJC center, which opened between 2006 and 2014. Standard errors that allow for clustering at the school level are reported in parentheses. All regressions include year fixed-effects, the excluded group is presence of a WJC center within 1km in 2006.

Table A-8: Relationship between WJC centers in the district rollout and pre-program school attendance

	Districts matched to WJC locations, Pre-WJC $\Delta$ 1996-2005					
	$\Delta$ <b>Primary School Attendance</b>			$\Delta$ <b>Secondary School Attendance</b>		
	(1) All	(2) Female	(3) Male	(4) All	(5) Female	(6) Male
WJC in the district in 2006	<i>(excluded group)</i>					
WJC in the district in 2007	0.010 (0.015)	-0.006 (0.029)	0.013 (0.016)	0.033 (0.051)	0.038 (0.056)	0.024 (0.063)
WJC in the district in 2008	0.012 (0.014)	-0.003 (0.031)	0.009 (0.013)	-0.013 (0.046)	-0.026 (0.067)	-0.001 (0.059)
WJC in the district in 2009	-	-	-	-	-	-
WJC in the district in 2010	0.011 (0.014)	0.001 (0.028)	-0.004 (0.016)	0.015 (0.045)	-0.022 (0.060)	0.045 (0.055)
WJC in the district in 2011	-0.002 (0.016)	-0.015 (0.030)	-0.001 (0.016)	0.008 (0.036)	0.019 (0.042)	-0.001 (0.042)
WJC in the district in 2012	0.020 (0.014)	0.002 (0.029)	0.021 (0.013)	-0.040 (0.042)	-0.026 (0.049)	-0.064 (0.051)
WJC in the district in 2013	0.006 (0.021)	-0.011 (0.038)	-0.010 (0.032)	0.002 (0.055)	-0.048 (0.081)	0.037 (0.059)
WJC in the district in 2014	0.020 (0.054)	0.001 (0.065)	0.024 (0.048)	-0.049 (0.074)	-0.153 (0.109)	-0.004 (0.067)
Observations	186	182	183	184	180	179
Number of districts	106	103	106	106	103	105
Year FE	YES	YES	YES	YES	YES	YES
P-value joint test	0.676	0.936	0.394	0.712	0.568	0.554
Robust standard errors in parentheses						
*** p<0.01, ** p<0.05, * p<0.1						

*Notes:* The dependent variable in columns 1-6 is the change in school attendance rate at the district level between 1996-2005. The observations correspond to the pre-WJC center period for each district (1996-2005), it includes all districts which have a WJC center that opened between 2006 and 2014. Standard errors that allow for clustering at the district level are reported in parentheses. All regressions include year fixed-effects, the excluded group is presence of a WJC center in the district in 2006.



Figure A-4: WJC center and CCT *Juntos* presence in the district

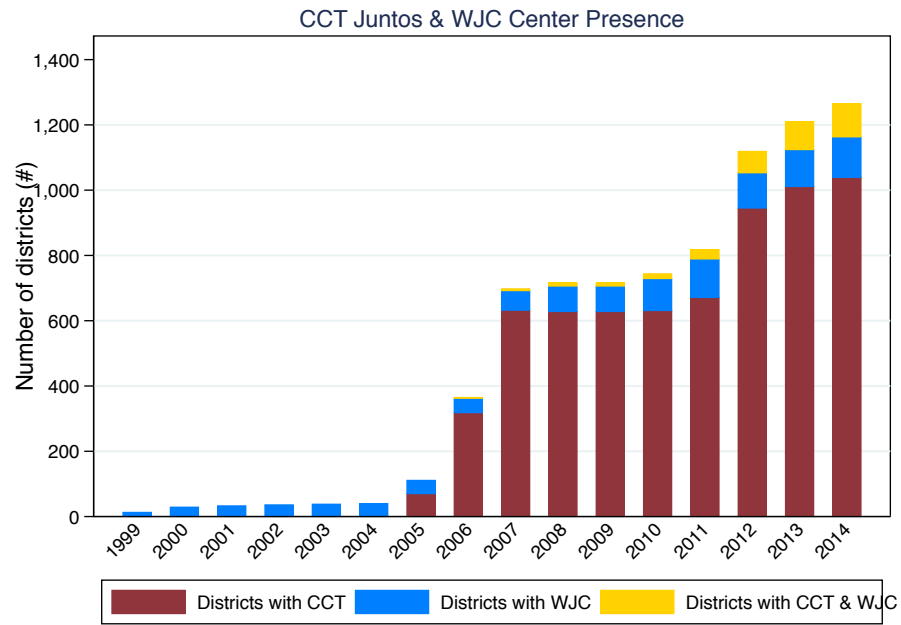


Figure A-5: WJC center and CCT *Juntos* entry in the district

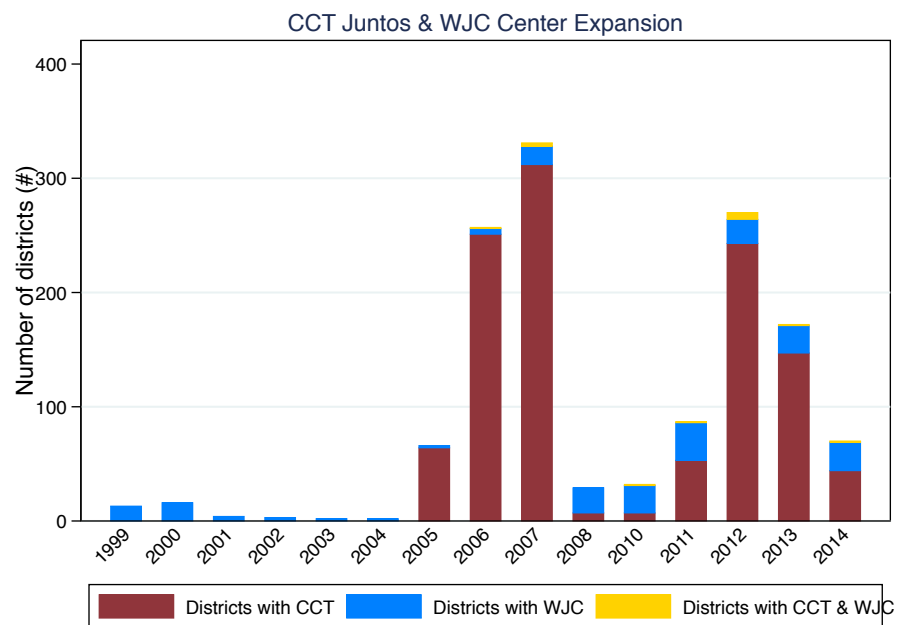


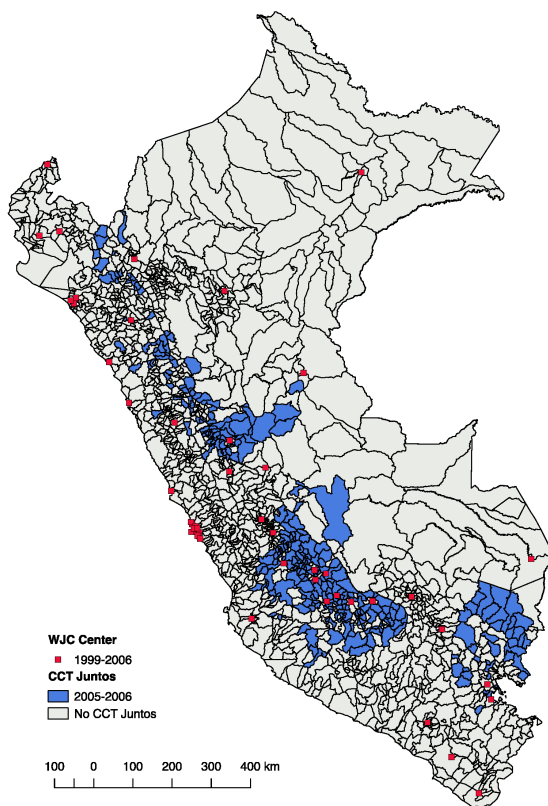
Table A-9: Correlation between WJC center and CCT *Juntos* program implementation (2005-2014)

Dep. var.	WJC center entry <sub>d</sub>		WJC center presence <sub>d</sub>	
	(1)	(2)	(3)	(4)
CCT <i>Juntos</i> entry <sub>d</sub>	0.002 (0.003)	0.005 (0.004)		
CCT <i>Juntos</i> presence <sub>d</sub>			-0.027*** (0.008)	0.001 (0.008)
Observations	18,390	18,390	18,390	18,390
Number of districts	1839	1839	1839	1839
District FE	NO	YES	NO	YES
Year FE	NO	YES	NO	YES
Robust standard errors in parentheses				
*** p<0.01, ** p<0.05, * p<0.1				

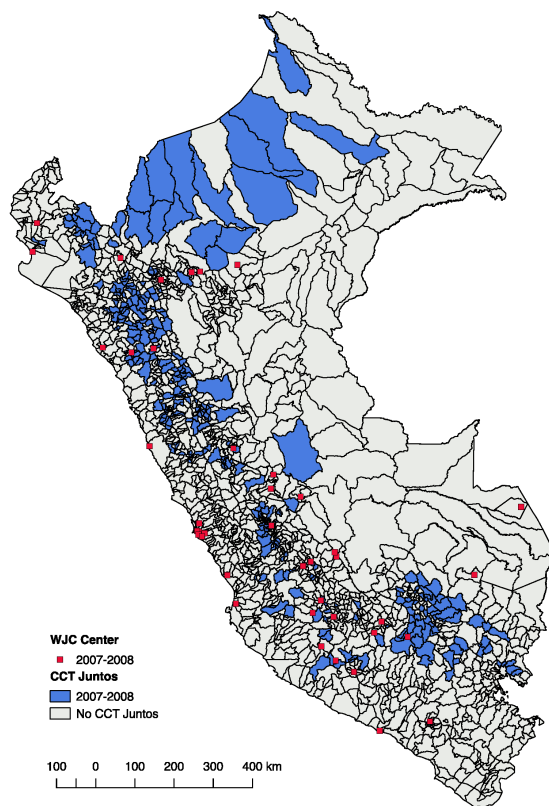
*Notes:* Standard errors that allow for clustering at the district level level are reported in parentheses. Program (WJC or CCT) entry is equal to one only in the year of introduction in the district. Program presence is equal to one in every year beginning with the first year after the program entry.

Figure A-6: Rollout of the WJCs across Time and Space (1999-2014)

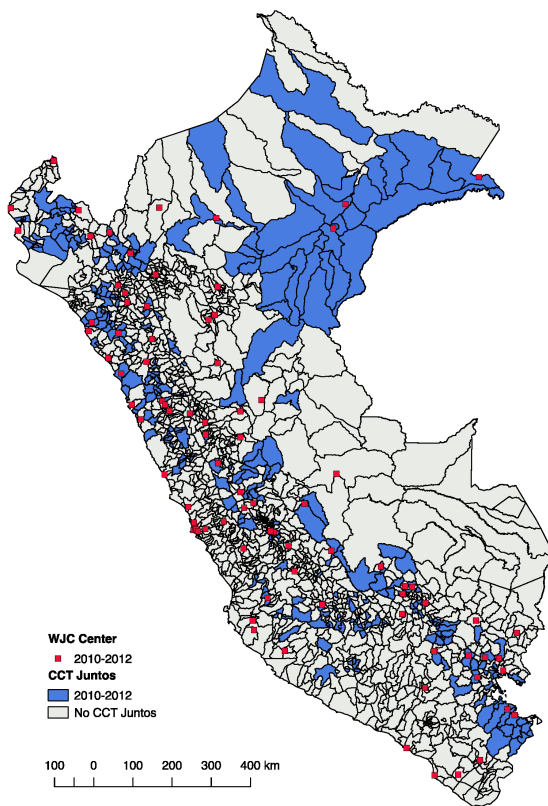
a. WJC centers and CCT - (1999-2006)



b. WJC centers and CCT - (2007-2008)



c. WJC centers and CCT - (2010-2012)



d. WJC centers and CCT - (2013-2014)

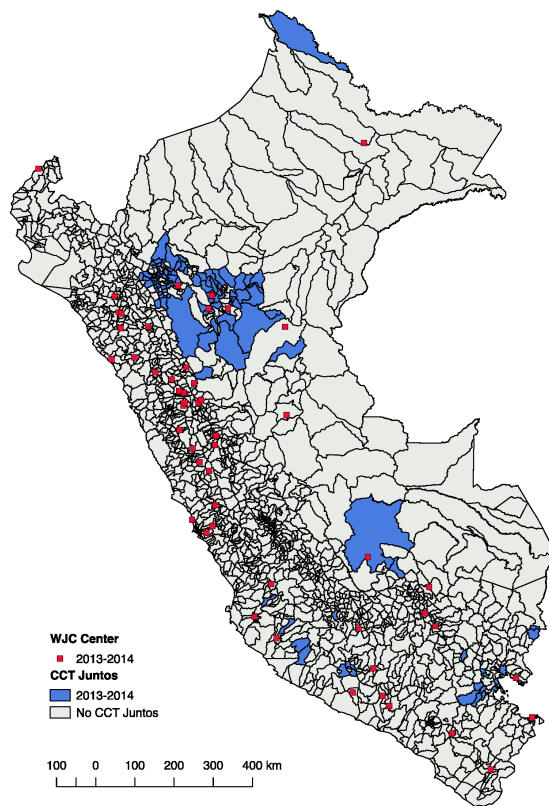


Table A-10: Domestic Violence by Children's Primary Level School Attendance Status - (2006-2014)

Primary Level (6-11 y.o.)	Children's School Attendance Status		
	Not Attending (1)	Attending (2)	Diff (3)
Domestic violence (All)	0.435 (0.010)	0.408 (0.001)	0.026** (0.010)
Observations	2,131	69,735	
Domestic violence (Urban Areas)	0.469 (0.014)	0.430 (0.002)	0.038*** (0.014)
Observations	1,149	37,185	
Domestic violence (Rural Areas)	0.395 (0.015)	0.384 (0.002)	0.010 (0.015)
Observations	982	32,550	

Table A-11: Primary Level Attendance Rates by Proximity to WJC center and Presence of a WJC center in the district - (2006-2014)

Primary Level (6-11 y.o.)	WJC within 1km			WJC in the district		
	No WJC (1)	WJC (2)	Diff (3)	No WJC (4)	WJC (5)	Diff. (6)
Attendance Rate (All)	0.971 (0.000)	0.962 (0.002)	0.008*** (0.002)	0.972 (0.000)	0.965 (0.002)	0.007*** (0.001)
Observations	42,914	5,789		48,895	22,971	
Attendance Rate (Urban Areas)	0.974 (0.001)	0.962 (0.002)	0.012*** (0.002)	0.975 (0.001)	0.964 (0.001)	0.010*** (0.001)
Observations	19,654	5,740		19,250	19,084	
Attendance Rate (Rural Areas)	0.968 (0.001)	1 (0)	-0.031 (0.024)	0.971 (0.000)	0.967 (0.002)	0.003 (0.002)
Observations	23,260	49		29,645	3,887	

Table A-12: The Effect of WJC Centers on Child Labor - (2006-2014)

Dep. variable Sample	Child Labor			
	All children	All children	Female	Male
	6-14 y.o (1)	6-14 y.o (2)	(3)	(4)
<i>Panel A: All Children</i>				
WJC within 1km	-0.021*** (0.005)	-0.008* (0.004)	-0.014** (0.006)	-0.003 (0.006)
Observations	97,933	97,933	48,108	49,816
Number of districts	1169	1169	1162	1164
Mean dep. var	0.070	0.070	0.064	0.075
<i>Panel B: Children of the women selected for the DV module</i>				
WJC within 1km	-0.024*** (0.006)	-0.012** (0.005)	-0.018** (0.008)	-0.006 (0.007)
Observations	71,410	71,410	35,162	36,215
Number of districts	1163	1163	1145	1147
Mean dep. var	0.065	0.065	0.059	0.070
District FE	YES	YES	YES	YES
Province*Year FE	YES	YES	YES	YES
Covariates	NO	YES	YES	YES
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1				

*Notes:* The dependent variable is a dummy indicating whether the child is currently working. The independent variables measures the presence of a WJC within a 1km Euclidean buffer of the child's cluster of residence. Robust standard errors (in parentheses) are clustered at the district level. The sample includes children between the ages of 6 and 14 years old. Covariates include age, gender, household's head years of education, number of children in the household aged 0-18, number of children in the household aged 0-5, number of female adults, number of male adults, rural residence dummy, district fixed effect and province-by-year fixed effect. Source: Peru DHS 2006-2014.

Table A-13: The Effect of WJC centers on Women's Health Outcomes - (2006-2014)

Dep. variables	Anemic	Weight in kilos	BMI	Smokes	Number of cigarettes	Unwanted last child	Teen pregnancy
Sample	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	15-49 years old						
	15-19 years old						
Sample A: All women							
WJC within 1km	-0.008 (0.008)	0.621*** (0.191)	0.156* (0.084)	0.003 (0.003)	-0.009 (0.014)	-0.021** (0.009)	-0.010** (0.005)
Observations	74,652	73,183	73,101	79,186	79,171	35,848	21,044
Number of districts	1135	1135	1135	1168	1167	1151	1077
Mean dep. var	0.261	61.72	26.86	0.037	0.054	0.273	0.038
Sample B: Only women in urban clusters							
WJC within 1km	-0.010 (0.009)	0.642*** (0.229)	0.167* (0.100)	0.004 (0.005)	-0.012 (0.019)	-0.024** (0.010)	-0.009* (0.005)
Observations	46,211	45,172	45,115	48,863	48,851	20,313	13,492
Number of districts	478	478	478	486	485	481	473
Mean dep. var	0.251	63.7	27.4	0.051	0.079	0.210	0.030
District FE	YES	YES	YES	YES	YES	YES	YES
Province-Year FE	YES	YES	YES	YES	YES	YES	YES
Covariates	YES	YES	YES	YES	YES	YES	YES
Robust standard errors in parentheses							
*** p<0.01, ** p<0.05, * p<0.1							

Notes: Source: Peru DHS 2006-2014.