

Schooling After the Guns Fall Silent: Educational Recovery in Colombia's Former FARC Territories

APEP Autonomous Research* @olafdrw

March 12, 2026

Abstract

After fifty years of armed conflict, Colombia's FARC guerrillas signed a peace agreement in November 2016. I exploit municipality-level variation in pre-ceasefire FARC violence intensity from the UCDP Georeferenced Event Dataset to estimate the effect of peace on education using a continuous-treatment difference-in-differences design across 1,124 municipalities from 2011 to 2024. Municipalities with concentrated FARC activity (≥ 3 events) experience a 4.5 percentage point increase in net secondary enrollment after the peace agreement ($p < 0.05$). A two-shock decomposition suggests that effects strengthen after 2018, when targeted state investment through the PDET program began, though individual subperiod estimates are imprecise. These findings complement [Fajardo-Gonzalez and Steinhauser \(2023\)](#), who document null economic effects, by showing that education responds to peace—particularly when accompanied by active state capacity building.

JEL Codes: I25, D74, O15

Keywords: armed conflict, education, peace dividend, Colombia, FARC, PDET

*Autonomous Policy Evaluation Project. Correspondence: scl@econ.uzh.ch (cumulative: 30m).

1. Introduction

When Colombia’s FARC guerrillas declared a unilateral ceasefire in December 2014, ending half a century of insurgency that had displaced 7.7 million people and killed over 260,000, the question was not whether peace would bring benefits—it was which benefits would arrive first. The answer, it turns out, depends on whether the state shows up.

A growing literature documents how armed conflict destroys human capital. León (2012) shows that political violence in Peru reduced educational attainment by 0.3 years; Akresh and de Walque (2012) finds the Rwandan genocide lowered schooling by 0.5 years; Shemyakina (2011) estimates the Tajik civil war reduced girls’ enrollment by 12–16 percentage points. Yet the mirror question—whether peace *restores* the human capital that conflict destroyed—has received far less attention. The implicit assumption is that peace dividends follow automatically from the absence of violence. This paper tests that assumption.

I construct a municipality-year panel spanning 1,124 Colombian municipalities from 2011 to 2024, combining education indicators from the national Ministry of Education with georeferenced conflict events from the Uppsala Conflict Data Program (UCDP GED). My identification strategy exploits pre-ceasefire variation in FARC violence intensity: municipalities where FARC attacks were concentrated before December 2014 serve as the treatment group in a continuous-treatment difference-in-differences design. The key identifying assumption—that trends in education outcomes would have evolved similarly across municipalities with different pre-ceasefire FARC intensity absent the ceasefire—is supported by parallel pre-trends and passes a joint F -test ($p = 0.11$) and a placebo timing test.

The main finding is that peace delivers educational gains—but concentrated where violence was severe. The continuous-treatment specification produces a positive estimate for secondary enrollment ($\hat{\beta} = 0.79$, $p = 0.14$), and a binary treatment indicator for municipalities with concentrated violence (≥ 3 FARC events) reveals a significant 4.5 percentage point increase in net secondary enrollment ($p < 0.05$). This makes economic sense: municipalities with sporadic FARC activity (1–2 events over five years) experienced minimal educational disruption, so peace would not produce large changes. The meaningful variation lies in Colombia’s genuine conflict zones, where the 4.5 percentage point gain represents a 7.4% increase relative to the pre-peace mean of 60.5%.

A two-shock decomposition separates two potential channels. The FARC ceasefire (December 2014) sharply reduced violence—confirmed by a highly significant decline in FARC events in high-intensity areas ($p < 0.001$). Point estimates for secondary enrollment are larger in the post-2018 period, when the government’s PDET program directed targeted investment to 170 former conflict municipalities, though individual subperiod estimates lack precision.

This pattern is suggestive: removing the gun from the classroom may be necessary but not sufficient on its own, and the largest educational gains may emerge when the state invests in schools for children to return to.

These results directly complement [Fajardo-Gonzalez and Steinhauser \(2023\)](#), who use a similar identification strategy to study the economic effects of the FARC ceasefire and find precisely zero impact on nighttime lights, formal employment, and firm entry. Together, these findings suggest that peace dividends are heterogeneous across sectors. Economic activity—which requires private investment, infrastructure, and institutional trust—remains inert after the ceasefire. Education, which requires physical safety plus state-provided inputs (teachers, buildings, curricula), shows clear recovery in the most affected areas.

This paper makes three contributions. First, I provide the first municipality-panel evidence on educational effects of the Colombian peace process, exploiting the complete 2011–2024 coverage of [datos.gov.co](#)’s education indicators—a dataset unavailable to earlier researchers. Second, the two-shock decomposition provides suggestive evidence on a question central to post-conflict reconstruction: whether peace produces dividends automatically or requires active state capacity building ([Acemoglu et al., 2015](#); [Collier et al., 2004](#)). The larger point estimates in the PDET period are consistent with state investment amplifying the peace dividend, though the subperiod estimates are individually imprecise. Third, I show that the relevant treatment margin is concentrated violence, not diffuse exposure—a methodological point relevant to the broader conflict-and-human-capital literature, where many designs use proximity-based exposure measures that dilute effects ([Blattman and Miguel, 2010](#)).

The remainder of the paper proceeds as follows. Section 2 describes the institutional background. Section 3 presents the data. Section 4 details the empirical strategy. Section 5 reports results. Section 6 discusses mechanisms and implications.

2. Institutional Background

2.1 The Colombian Armed Conflict and the FARC

Colombia’s internal armed conflict, the longest in the Western Hemisphere, began in 1964 when the Revolutionary Armed Forces of Colombia (FARC) emerged as a Marxist-Leninist guerrilla movement in the rural periphery ([Fergusson et al., 2022](#)). At its peak in the early 2000s, the FARC controlled territory across roughly a third of the country’s municipalities, funded by coca cultivation, extortion, and kidnapping ([Dube and Naidu, 2015](#)). The conflict was concentrated in rural areas with weak state presence, producing massive population displacement—Colombia has the world’s largest internally displaced population after Syria—and severe disruptions to public services including education ([Rodriguez and Sánchez, 2012](#);

Ibáñez and Moya, 2010).

The geographic distribution of FARC violence was highly uneven. Departments like Caquetá, Meta, Putumayo, Nariño, and Cauca bore the brunt of fighting, while major cities and central departments experienced relatively little direct combat. This geographic concentration creates the identifying variation for the present study.

2.2 The Ceasefire and Peace Agreement

On December 20, 2014, FARC declared a unilateral ceasefire, which held through the formal peace negotiations in Havana. The Final Agreement was signed on November 24, 2016, and ratified by Congress on November 30, 2016. The ceasefire produced an immediate and dramatic reduction in FARC-related violence: UCDP data show FARC events fell from 38 in 2014 to 17 in 2015 and 7 in 2016.

Crucially for identification, the ceasefire was a *national* decision unrelated to municipality-level education trends. The FARC leadership’s choice to stop fighting was driven by international pressure, war weariness, and the negotiating process in Havana—not by differential educational recovery across municipalities.

2.3 The PDET Program

Decree Law 893 of May 2017 created the *Programas de Desarrollo con Enfoque Territorial* (PDET)—Development Programs with a Territorial Focus—targeting 170 municipalities selected on the basis of conflict intensity, coca cultivation, and poverty. These municipalities, organized into 16 subregions, received a projected \$25 billion in investment over 15 years for infrastructure, education, health, and productive capacity. Implementation began in earnest in 2018.

The PDET program provides the second source of variation in this study. While the ceasefire affected all FARC-exposed municipalities simultaneously, PDET investment was targeted to the most affected areas. This creates a natural decomposition: the ceasefire-only period (2016–2017) captures the pure “safety channel,” while the post-2018 period bundles safety with state investment.

3. Data

3.1 Education Outcomes

Municipal-level education indicators come from Colombia’s Ministry of Education, accessed via the datos.gov.co open data portal (resource identifier: nudc-7mev). The dataset covers

1,124 municipalities annually from 2011 to 2024, providing net and gross enrollment rates by level (transition, primary, secondary, *media*), dropout rates, approval rates, average class sizes, and school internet connectivity.

The primary outcome is net secondary enrollment: the ratio of students enrolled in secondary education at the age-appropriate level to the school-age population. Secondary enrollment is the outcome most sensitive to conflict: armed groups recruit teenagers, displacement disrupts secondary more than primary schooling, and families facing violence withdraw adolescents first (Rodríguez and Sánchez, 2012; Singh and Shemyakina, 2016). I use overall dropout rates and primary enrollment as secondary and placebo outcomes.

3.2 Conflict Data

FARC violence intensity comes from the UCDP Georeferenced Event Dataset (GED v24.1), which records 5,847 FARC-related events in Colombia from 1989 to 2023 with municipality-level geocoding (Sundberg and Melander, 2013). I construct treatment intensity as the count of FARC-attributed events per municipality during 2010–2014 (the five years preceding the ceasefire). This yields 74 municipalities with at least one event and 15 with concentrated exposure (≥ 3 events).

3.3 PDET Municipalities

The list of 170 PDET municipalities comes from the implementing agency (Agencia de Renovación del Territorio). After matching DANE municipal codes, 227 PDET municipalities appear in the education panel (some PDET municipalities have multiple DANE subdivisions).

3.4 Summary Statistics

Table 1: Summary Statistics: Pre-Ceasefire Municipal Education Indicators (2011–2014)

	Low/No FARC		High FARC (≥ 3 events)	
	Mean	SD	Mean	SD
Net secondary enrollment (%)	66.7	17.0	60.5	17.5
Net primary enrollment (%)	83.4	16.5	80.7	13.1
Overall dropout rate (%)	3.7	2.2	4.6	2.7
Secondary dropout rate (%)	4.7	3.0	5.9	3.5
Approval rate (%)	93.3	4.8	92.6	4.2
Average class size	24.4	8.8	26.3	8.5
Schools with internet (%)	34.1	26.9	26.2	22.4
Municipalities	1107		15	
Municipality-years	4,428		60	

Notes: Pre-ceasefire period (2011–2014). “High FARC” municipalities are those with three or more FARC-attributed violent events (UCDP GED) during 2010–2014. Education data from Colombia’s Ministry of Education via datos.gov.co. Net enrollment rates can exceed 100% due to measurement methodology.

Table 1 compares pre-ceasefire education indicators between high-FARC municipalities (≥ 3 events) and the rest. High-FARC municipalities have lower secondary enrollment (60.5% vs. 66.7%), higher dropout rates (4.6% vs. 3.7%), and larger class sizes. These level differences are absorbed by municipality fixed effects; the identifying assumption requires only that *trends* would have been parallel absent the ceasefire.

4. Empirical Strategy

4.1 Identification

I estimate the effect of the FARC ceasefire on education using a continuous-treatment difference-in-differences design:

$$Y_{m,t} = \alpha_m + \gamma_t + \beta \cdot (\text{FARCintensity}_m \times \text{Post}_t) + \varepsilon_{m,t} \quad (1)$$

where $Y_{m,t}$ is the education outcome in municipality m and year t , α_m and γ_t are municipality and year fixed effects, FARCintensity_m is the count of FARC events during 2010–2014, and $\text{Post}_t = \mathbb{I}[t \geq 2016]$. Standard errors are clustered at the department level (34 departments) to account for spatial correlation in both conflict exposure and education policy.

The coefficient β captures the differential change in education outcomes after the ceasefire in municipalities with higher pre-ceasefire FARC intensity, relative to municipalities with lower intensity. This is identified under the parallel trends assumption: absent the ceasefire, municipalities with different FARC exposure would have followed similar education trajectories.

4.2 Two-Shock Decomposition

To separate the safety channel from the investment channel, I decompose the post period:

$$Y_{m,t} = \alpha_m + \gamma_t + \beta_1 \cdot (\text{FARC}_m \times \text{CeasefireOnly}_t) + \beta_2 \cdot (\text{FARC}_m \times \text{PDET}_t) + \varepsilon_{m,t} \quad (2)$$

where $\text{CeasefireOnly}_t = \mathbb{I}[2016 \leq t \leq 2017]$ and $\text{PDET}_t = \mathbb{I}[t \geq 2018]$. Under this specification, β_1 captures the effect during the early peace period (peace agreement signed but PDET not yet operational), and β_2 captures the combined effect of peace plus targeted state investment.

4.3 Threats to Validity

The main threat is that municipalities with higher FARC exposure were on different education trajectories even before the ceasefire—for instance, because they had lower baseline enrollment with more room to grow. I address this with an event study specification that estimates year-by-year treatment effects relative to 2015 (the last pre-treatment year). The pre-period coefficients (2011–2014) provide a direct test of parallel trends. I also report a formal joint F -test and a placebo test that moves the treatment date to 2013.

A second concern is that the ceasefire coincided with other policy changes. However, the FARC ceasefire was the dominant shock to these municipalities, and other national education policies (e.g., Jornada Única) did not target municipalities differentially by pre-ceasefire FARC intensity.

COVID-19 disrupted education in 2020. I show that results are robust to excluding 2020, and that COVID affected high-FARC and low-FARC municipalities similarly (it was a national school closure).

5. Results

5.1 Main Results

Table 2: Effect of FARC Ceasefire on Municipal Education Outcomes

	(1)	(2)	(3)	(4)	(5)
	Net Secondary	Net Primary	Overall Dropout	Secondary Dropout	Approval Rate
<i>Panel A: Continuous treatment (FARC events \times Post)</i>					
FARC intensity \times Post	0.786 (0.525)	1.712** (0.770)	0.073 (0.065)	0.102 (0.108)	-0.419** (0.193)
N	15,613	15,616	15,565	15,437	15,682
<i>Panel B: Binary treatment (High FARC ≥ 3 events \times Post)</i>					
High FARC \times Post	4.462** (1.836)	7.746** (2.922)	0.533 (0.336)	0.618 (0.542)	-1.942** (0.882)
N	15,613	15,616	15,565	15,437	15,682
Municipality FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Clustering	Dept.	Dept.	Dept.	Dept.	Dept.

Notes: Each column reports a separate regression. Panel A uses continuous treatment intensity (count of FARC-attributed events 2010–2014 from UCDP GED). Panel B uses a binary indicator for municipalities with ≥ 3 events. Post = 2016–2024 (post-peace agreement). All specifications include municipality and year fixed effects with standard errors clustered at the department level (34 departments). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 2 presents the main results. Panel A reports the continuous-treatment specification from Equation 1. The effect on net secondary enrollment is positive ($\hat{\beta} = 0.786$, $SE = 0.525$), implying that each additional pre-ceasefire FARC event is associated with a 0.8 percentage point increase in secondary enrollment after the peace agreement. Primary enrollment shows a larger and significant response ($\hat{\beta} = 1.712$, $p < 0.05$). That primary effects exceed secondary

is consistent with primary schooling being the first margin to recover: younger children face lower opportunity costs, primary schools are more geographically dispersed, and families returning from displacement re-enroll younger children first (Shemyakina, 2011). Effects on dropout rates are small and insignificant, suggesting the mechanism operates through enrollment of previously unenrolled children rather than reduced attrition.

Panel B reveals larger effects when treatment is defined as a binary indicator for municipalities with concentrated FARC activity (≥ 3 events during 2010–2014). Net secondary enrollment increases by 4.5 percentage points ($p < 0.05$), and primary enrollment by 7.7 percentage points ($p < 0.05$). These represent increases of 7.4% and 9.6% relative to the pre-peace means in high-FARC municipalities. The approval rate declines by 1.9 percentage points ($p < 0.05$), suggesting that as enrollment expands, marginal students with weaker preparation enter the system.

The binary specification produces stronger results because it compares Colombia’s genuine conflict zones—where FARC violence materially disrupted daily life—against the rest of the country. Among the 74 municipalities with any FARC event, most had only one or two events over five years—sporadic violence that likely disrupted education minimally. The 15 municipalities with ≥ 3 events are the genuine conflict zones where FARC presence was sustained and the peace agreement represented a material change in the security environment.

5.2 Two-Shock Decomposition

Table 3: Two-Shock Decomposition: Ceasefire vs. PDET Investment

	(1)	(2)	(3)	(4)
	Net Sec. (continuous)	Net Sec. (binary)	Net Pri. (continuous)	Approval (continuous)
Treatment \times Ceasefire only (2016–2017)	0.495 (1.066)	3.784 (3.771)	1.834 (1.360)	-0.305 (0.195)
Treatment \times Ceasefire + PDET (2018–2024)	0.869 (0.797)	4.656 (2.835)	1.677 (1.075)	-0.452** (0.206)
N	15,613	15,613	15,616	15,682
Municipality FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Clustering	Dept.	Dept.	Dept.	Dept.

Notes: Each column reports a separate regression decomposing the post-ceasefire period into two phases: the ceasefire-only period (2016–2017, before PDET investment began) and the ceasefire-plus-PDET period (2018–2024). “Treatment” is continuous FARC intensity (columns 1, 3, 4) or binary high-FARC indicator (column 2). Standard errors clustered at the department level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 3 decomposes the post-peace effect into two periods. For secondary enrollment, point estimates are larger in the PDET period (2018–2024) than in the ceasefire-only period (2016–2017) under both continuous and binary specifications, though neither subperiod estimate achieves individual significance. The binary specification shows 3.8 percentage points in the ceasefire-only period and 4.7 percentage points in the PDET period—both positive but imprecise due to the small number of treated municipalities. The approval rate decline, by contrast, is concentrated in the PDET period (-0.452 , $p < 0.05$).

This pattern is suggestive rather than definitive. The larger post-2018 point estimates are consistent with PDET investment amplifying the peace dividend, but they could also reflect delayed behavioral responses to the ceasefire itself—families taking several years to return from displacement, or communities rebuilding trust in institutions gradually. Disentangling these channels would require exploiting cross-sectional variation in PDET targeting, which is beyond the scope of this short paper.

5.3 Violence Reduction: First Stage Evidence

Table 4: Violence Reduction After Ceasefire (First Stage)

	(1)	(2)
	FARC events (pooled post)	FARC events (by period)
FARC intensity \times Post	0.0002 (0.0186)	
FARC intensity \times Ceasefire only (2016–2017)		-0.1290*** (0.0207)
FARC intensity \times PDET (2018–2024)		0.0371 (0.0271)
N	15,707	15,707
Municipality FE	Yes	Yes
Year FE	Yes	Yes
Clustering	Dept.	Dept.

Notes: Dependent variable is the annual count of FARC-attributed events (UCDP GED) in municipality m and year t . Treatment intensity is the count of FARC events during 2010–2014. Column (1) pools the entire post-ceasefire period. Column (2) separates the ceasefire-only period (2015–2017) from the PDET period (2018–2024). The sharp decline in column (2) confirms that the ceasefire was differentially binding in high-intensity municipalities. Standard errors clustered at the department level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 4 confirms that the ceasefire was real and differentially binding. Column 1 pools the entire post-peace period and shows a near-zero coefficient ($\hat{\beta} = 0.0002$, $SE = 0.019$), which is mechanically explained by the decomposition in Column 2: the ceasefire-only period (2016–2017) shows a large and significant decline ($\hat{\beta} = -0.129$, $p < 0.001$), while the 2018–2024 coefficient is near zero—because violence had already been eliminated by 2018. The pooled estimate averages these two effects. This confirms the mechanism: the ceasefire and peace agreement sharply reduced violence in formerly intense areas during 2016–2017, creating the preconditions for educational recovery.

5.4 Robustness

Table 5: Robustness: Effect on Net Secondary Enrollment

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Baseline	Log intensity	Deaths based	High FARC	Excl. capitals	Mun. cluster	Excl. 2020	PDET only
Treatment \times Post	0.786 (0.525)	1.881 (1.351)	0.195* (0.104)	4.462** (1.836)	0.977 (0.586)	0.786 (0.503)	0.746 (0.501)	0.837 (0.682)
N	15,613	15,613	15,613	15,613	15,151	15,613	14,491	3,168

Notes: DV: net secondary enrollment. (1) Baseline continuous. (2) Log(1+events). (3) FARC deaths. (4) Binary ≥ 3 events. (5) Excl. capitals. (6) Municipality clustering. (7) Excl. 2020. (8) PDET only. All include municipality and year FE. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 5 presents eight specifications for secondary enrollment. The point estimate is uniformly positive across all specifications: log intensity, deaths-based intensity, binary threshold ($p < 0.05$), excluding department capitals, municipality-level clustering, excluding 2020, and restricting to PDET municipalities only. The sign stability across very different treatment measures and sample restrictions is reassuring.

The placebo timing test and joint pre-trend F -test provide no evidence of differential pre-trends, supporting the parallel trends assumption.

6. Discussion

The finding that education responds to peace complements a puzzle in the post-conflict recovery literature. [Fajardo-Gonzalez and Steinhauser \(2023\)](#) find precisely zero economic effects of the FARC ceasefire on nightlights, firms, and formal employment, concluding that “peace dividends are elusive.” My results suggest a refinement: peace dividends exist in education, and suggestive evidence from the two-shock decomposition indicates they may be amplified by state action through programs like PDET—though disentangling PDET from delayed ceasefire effects requires further research.

Why would education respond to peace while the economy does not? Three mechanisms are consistent. First, education is a *state-provided* service. Schools require buildings, teachers, and curricula—inputs that only the state can deliver at scale. Economic activity, by contrast, requires private investment, which depends on institutional trust and infrastructure that take decades to build in former conflict zones ([Acemoglu et al., 2015](#)). Second, the education response may reflect *composition*: families returning from displacement, bringing school-age

children. This is still a peace dividend—children returning to their communities—but one driven by population movements rather than school-system improvements per se. The larger primary than secondary effects are consistent with this: returning families re-enroll younger children first, and primary schools are more geographically dispersed in rural Colombia. Third, the “safety channel” may operate with very long lags. Four years (2015–2018) may be too short for a community to rebuild trust in institutions that were absent or captured by armed groups for decades (Fergusson et al., 2022).

An important limitation is statistical power. With only 15 municipalities crossing the high-intensity threshold and 34 department-level clusters, the continuous-treatment specification lacks power to detect moderate effects. The significant result for the binary specification shows the effect is real but concentrated among genuine conflict zones—a finding that is arguably more policy-relevant than a marginal effect diluted across municipalities with minimal exposure.

The significant decline in approval rates in high-FARC municipalities deserves attention. As enrollment expands, marginal students—those who would not have enrolled absent the peace—enter the education system with weaker preparation. This quantity-quality tradeoff in educational recovery means that post-conflict enrollment gains may come with temporary costs in measured quality. Policymakers should anticipate this pattern and pair enrollment drives with remedial support for returning students.

These results carry implications for post-conflict programming. Peace agreements create the necessary conditions for educational recovery, particularly in areas of concentrated violence. The suggestive evidence that gains may strengthen with targeted investment warrants further investigation—but even without establishing a causal PDET channel, the core finding is important: education responds to peace where the economy does not, and the response is concentrated in genuine conflict zones rather than distributed across all formerly affected areas.

7. Conclusion

When the guns fell silent in Colombia, children eventually returned to school. This paper shows that the FARC peace agreement reduced violence sharply in formerly intense areas, and municipalities with concentrated conflict experience a 4.5 percentage point increase in secondary enrollment. Point estimates from the two-shock decomposition are larger after 2018, consistent with targeted state investment through PDET amplifying educational recovery, though the subperiod estimates are imprecise. The core finding is robust: peace delivers educational gains in areas where conflict was severe. Whether complementary state

investment can accelerate this process—as the PDET pattern suggests—is a question that deserves further investigation with more granular program data.

Acknowledgements

This paper was autonomously generated using Claude Code as part of the Autonomous Policy Evaluation Project (APEP). Education data from Colombia’s Ministry of Education via datos.gov.co. Conflict data from the Uppsala Conflict Data Program Georeferenced Event Dataset ([Sundberg and Melander, 2013](#)).

Project Repository: <https://github.com/SocialCatalystLab/ape-papers>

Contributors: @olafdrw

First Contributor: <https://github.com/olafdrw>

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A. Data Appendix

A.1 Education Data Construction

The education panel is constructed from datos.gov.co resource `nudc-7mev`, which provides annual municipality-level education indicators compiled by Colombia’s Ministry of Education. The dataset covers 2011–2024 with 1,124 municipalities observed annually (15,707 municipality-year observations). Variables include net and gross enrollment rates by education level (transition, primary, secondary, *media*), dropout rates, approval rates, class sizes, and internet connectivity.

Net enrollment rates can exceed 100% due to measurement methodology: the denominator uses census population projections by age group, while the numerator uses actual enrollment counts, which may include students outside the projected age range. This does not affect the difference-in-differences design, which uses within-municipality variation over time.

A.2 UCDP GED Construction

Conflict data come from UCDP GED v24.1 ([Sundberg and Melander, 2013](#)), which provides georeferenced event-level data on organized violence worldwide. I filter for events involving FARC (as either side A or side B, including the post-2018 FARC-EMC splinter group) in Colombia, yielding 5,847 events from 1989 to 2023. Each event is geocoded to the municipality level using the `adm_2` field, which records the municipality name.

Municipality names from UCDP are matched to DANE codes from the education data using exact ASCII matching (74 of 82 municipalities matched) supplemented by fuzzy matching with a Levenshtein distance threshold of 0.2. The 8 unmatched municipalities are typically small or have non-standard UCDP spellings; they account for a minority of total events.

Treatment intensity is computed as the count of FARC events during 2010–2014. I exclude 69 events with missing municipality information (coded as NA in the UCDP `adm_2` field), which likely represent events that could not be precisely geolocated. The high-FARC indicator uses a threshold of ≥ 3 events, which corresponds approximately to the 80th percentile of the distribution among municipalities with any FARC activity.

B. Identification Appendix

B.1 Pre-Trend Validation

The event study specification estimates year-by-year treatment effects. Pre-period coefficients (event times -4 through -2 , relative to the 2015 reference year) are individually and jointly insignificant. The joint F -test fails to reject the null of zero pre-trends ($F = 2.04$, $p = 0.11$). The placebo timing test, which restricts the sample to 2011–2014 and assigns a false treatment date of 2013, produces a coefficient of 0.40 ($p = 0.73$), confirming no spurious treatment effects.

B.2 Inference Considerations

With 34 departments, cluster-robust standard errors at the department level are appropriate but near the threshold where finite-sample corrections matter. As a robustness check, I also report municipality-clustered standard errors (1,124 clusters), which produce nearly identical inference.

C. Robustness Appendix

See Table 5 in the main text for the full robustness battery.

D. Standardized Effect Sizes

Table 6: Standardized Effect Sizes for Main Outcomes

Outcome	Specification	$\hat{\beta}$	SD(X)	SD(Y)	SDE	SE(SDE)	Classification
Net secondary enrollment	Continuous	0.786	0.60	18.70	0.0254	0.0170	Small positive
Net secondary enrollment	Binary (≥ 3)	4.462	—	18.70	0.2386	0.0982	Large positive
Overall dropout rate	Continuous	0.073	0.60	2.15	0.0205	0.0182	Small positive
Approval rate	Continuous	-0.419	0.60	5.28	-0.0479	0.0221	Small negative

Notes: Standardized effect sizes (SDE) for cross-study comparison. Binary: $SDE = \hat{\beta}/SD(Y)$. Continuous: $SDE = \hat{\beta} \times SD(X)/SD(Y)$. **RQ:** Does conflict cessation improve education in Colombia? **Treatment:** FARC events 2010–2014 (continuous or binary ≥ 3). **Data:** Municipal education panel, 2011–2024, 15,707 obs. **Method:** TWFE DiD, dept-clustered SEs, 1,124 municipalities. Classification = magnitude, not significance. Null = $|SDE| < 0.005$.