

Militarization and police violence: The case of the 1033 program

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Abstract

Does increased militarization of law enforcement agencies (LEAs) lead to an increase in violent behavior among officers? We theorize that the receipt of military equipment increases multiple dimensions of LEA militarization (material, cultural, organizational, and operational) and that such increases lead to more violent behavior. The US Department of Defense 1033 program makes excess military equipment, including weapons and vehicles, available to local LEAs. The variation in the amount of transferred equipment allows us to probe the relationship between military transfers and police violence. We estimate a series of regressions that test the effect of 1033 transfers on three dependent variables meant to capture police violence: the number of civilian casualties; the change in the number of civilian casualties; and the number of dogs killed by police. We find a positive and statistically significant relationship between 1033 transfers and fatalities from officer-involved shootings across all models.

Keywords

Militarization, police, shootings

“I suppose it is tempting, if the only tool you have is a hammer, to treat everything as if it were a nail.”

Abraham Maslow, *The Psychology of Science: A Reconnaissance* (1966)

“Soldierin’ and policin’ – they ain’t the same thing.”

Major Howard “Bunny” Colvin, *The Wire* Season 3, Episode 10 (2014)

Defense 1033 program, which makes surplus military equipment available to state, local, and tribal law enforcement agencies (LEAs) at no cost. The EO banned LEAs from acquiring certain equipment, and restricted them from acquiring others.¹ It also called for transparency and training regarding the materials received. Some feared the demilitarized police departments would no longer be able to keep up with drug dealers, rioters, and terrorists. US Representative John Ratcliffe introduced the Protecting Lives Using Surplus Equipment Act to the House of Representatives that would nullify all aspects of the EO.²

Introduction

The summer of 2014 saw protracted protests to the non-response associated with the killing of 18-year-old Michael Brown. By the second day of protests, police officers showed up in armored vehicles wearing camouflage, bullet-proof vests, and gas masks brandishing shotguns and M4 rifles (Chokshi, 2014). That militarized response led to a wave of criticism from observers including former military personnel and politicians from both sides of the aisle. In response, the federal government launched an investigation that ultimately resulted in Executive Order 13688 (EO). The EO sought to regulate the Department of

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In an interview, he said “It would be one thing if there was some evidence that showed state and local law enforcement had abuse [sic] or misused the equipment, and then caused undue or unnecessary harm to American citizens. That isn’t the case” (Jennings, 2016). This paper provides the first attempt to analyze whether and to what extent military transfers have increased the propensity by which LEAs cause “undue or unnecessary harm.”

Drawing from Kraska (2007), we argue that increasing LEA access to military equipment will lead to higher levels of aggregate LEA violence. The effect occurs because the equipment leads to a culture of militarization over four dimensions: material; cultural; organizational; and operational. As militarization seeps into their cultures, LEAs rely more on violence to solve problems. The mechanism mirrors psychology’s classic “Law of the Instrument,” whereby access to a certain tool increases the probability that the tool is used for problems when other tools may be more appropriate (Maslow, 1966), including access to weapons increasing violent responses (e.g. Anderson et al., 1998; Berkowitz and LePage, 1967).

We evaluate this proposition using county-level data on police killings in four US states: Connecticut, Maine, Nevada, and New Hampshire (Burghart, 2015); and the data on 1033 program receipts (<https://github.com/washingtonpost/data-1033-program>). Estimating a series of regressions, we find that 1033 receipts are associated with both an increase in the number of observed police killings in a given year as well as the change in the number of police killings from year to year, controlling for a battery of possible confounding variables including county wealth, racial makeup, civilian drug use, and violent crime. Given that establishing a causal effect between 1033 receipts is potentially problematic due to concerns of endogeneity, we re-estimate our regressions using an alternative dependent variable independent of the process by which LEAs request and receive military goods: the number of dogs killed by LEAs. We find 1033 receipts are associated with an increase in the number of civilian dogs killed by police. Combined, our analyses provide support for the argument that 1033 receipts lead to more LEA violence.

We organize the rest of the paper as follows. First, we provide an argument that links police militarization and police violence. Next, we briefly introduce the reader to the 1033 program and why it is appropriate for studying the question at hand. Next, we describe the data and empirical strategy. Then we present the results. Finally, we conclude with some thoughts about how the research should influence policy and can be expanded in the future.

Militarization

Borrowing from Kraska (2007: 503), we define militarization as the embrace and implementation of an ideology that stresses the use of force as the appropriate and efficacious

means to solve problems. Kraska (2007) provides four dimensions of militarization: material; cultural; organizational; and operational. We contend these dimensions reinforce one another so that an increase in one can lead to an increase in others. More specifically, the military equipment obtained from the 1033 program directly increases the material dimension. With the new equipment, martial language (cultural), martial arrangements such as elite units (organizational), and willingness to engage in high-risk situations (operational) increase (Balko, 2014). Military equipment naturally increases military-style training for said equipment. That training can increase the other dimensions of militarization. One trainer’s quote illustrates well the uptake of militarized culture: “Most of these guys just like to play war; they get a rush out of search and destroy missions instead of the bullshit they do normally” (Kraska, 2001, quoted in Balko, 2014: 212). But the trainees would not have to settle for the normal “bullshit” for long. Many LEAs began practicing SWAT raids on low-level offenders as a way to train and then as a matter of normal policy (Balko, 2014; Sanow, 2011). Officers running military operations with military tools and military mindsets organized militarily will rely more on the tenets of militarization (e.g. the use of force to solve problems) which should increase the use of violence on average. Since 1997, LEAs obtain much if not most of their military equipment from the 1033 program.

1033 program and militarization

President Bill Clinton signed into law H.R. 3230 (National Defense Authorization Act for Fiscal Year 1997). The bill contains section 1033, which allows the Secretary of Defense to sell or transfer excess military equipment to local LEAs. Between 2006 and April of 2014 alone, the Department of Defense transferred over \$1.5 billion worth of equipment including over 600 mine-resistant ambush-protected vehicles, 79,288 assault rifles, 205 grenade launchers, 11,959 bayonets, 50 airplanes, 422 helicopters, and \$3.6 million worth of camouflage and other “deception equipment” (Rezvani et al., 2014). Eighty percent of US counties received transfers, and those transfers increased over time from 2006 to 2013 by 1414% (Radil et al., 2017). These variations allow us to test the proposition that, all things being equal, the receipt of higher levels of 1033 equipment will lead to increased levels of violence from LEAs.

Data

Ultimately, the goal of this paper is to empirically assess the relationship between 1033 transfers and police violence. To do so, we use a unique time-series cross-sectional dataset, drawing from several sources. The dataset consists of county level data for four states – Connecticut, Maine, Nevada, and New Hampshire – from 2006–2014 ($n = 455$).

Our primary analyses use two dependent variables in two separate models: (1) the number of civilians killed by LEAs in a given county for a given year; and (2) the observed change in killings in a county between a given year and the previous year. The first most directly tests the outcome of interest. We also regress the change in killings from the previous year on the independent variables in order to somewhat address endogeneity issues. That is, one could reasonably expect LEAs with high raw levels of killing to seek more 1033 transfers. However, it should be harder (though not impossible) for LEAs to anticipate how their need to use violence will change from year to year. On top of that, we control for the average number of killings in the county in the regression using the change in killings dependent variable.

We constructed the variables using data from the Fatal Encounters (Burghart, 2015) database, which, drawing from other (incomplete) datasets, public record requests, and crowd-sourced reports, provides a more comprehensive list regarding police killings for selected states. When constructing the dataset, only data for Connecticut, Maine, Nevada, and New Hampshire were available, thus limiting the sample to all counties within these states.³

The explanatory variable of interest measures the total value of military surplus goods transferred to LEAs in a given county in the previous year (logged US\$). We believe that use of a lagged measure somewhat addresses endogeneity concerns since operational, organizational, and cultural shifts are expected to occur sometime after the materials arrive, and training has completed. We used the data from the 1033 dataset released by the *Washington Post* (<https://github.com/washingtonpost/data-1033-program>), which compiles raw data regarding 1033 transfers released by the US Department of Defense Logistics Agency in 2014. From 2006–2014, nearly 88% of the counties in our dataset received at least one 1033-transfer: the median county received goods valued at roughly \$50,000. Note that while our data contains information from 2006–2014, our use of a lagged independent variable eliminates the 2006 year from our empirical analysis ($n = 390$).

Figure 1 illustrates the relationship between 1033 transfers and counties that experienced at least one killing in Nevada in 2013.⁴ No LEA killings occurred in counties that did not receive military equipment. While suggestive, we next move to more rigorous statistical tests with controls to increase the credibility of our claims.

We include several variables that we expect to simultaneously correlate with military expenditures and police violence in order to avoid biased estimates. Based on other research we included median household income (e.g. Mitchell and Wood, 1998; US Census Bureau, 2016),⁵ population (e.g. Jacobs, 1998; US Census Bureau, 2016), black population (e.g. Ross, 2015; US Census Bureau, 2016), violent crime (e.g. Federal Bureau of Investigation, 2010; Jacobs, 1998), and civilian drug use (Balko, 2014; Substance

Abuse and Mental Health Services Administration, 2016) as controls.⁶ When using the number of observed killings as the dependent variable we also include a lagged dependent variable to control for autocorrelation (Beck and Katz, 1995). When the change in killings is used as the dependent variables, we include the mean number of killings in that county over the observed time period as a control. We provide descriptive statistics for all variables in Table A1 in the Online Appendix.

Empirical analysis

In order to test the proposed relationship between 1033 receipts and our dependent variables, we estimate two separate regressions on an unbalanced time-series cross-section data set from the years 2006 to 2014 with standard errors clustered on county.⁷ When we estimate the expected number of killings we utilize a negative binomial regression; when we estimate the change in police killings, we use ordinary least squares regression. Prior to estimation, we use the multiple imputation method recommended by King and Wittenberg (2000) to avoid potential bias introduced by dropping observations that contain missing data. The extent to which each variable is imputed is shown in Table A2 in the Online Appendix.

Results

The results, presented in Table 1, confirm our argument: the receipt of more military equipment increases both the expected number of civilians killed by police ($\beta = 0.055$; $p = 0.016$) and the change in civilian deaths ($\beta = 0.017$; $p = 0.082$). Given the difficulty of interpreting the substantive effect of a logged independent variable, we rely on the predicted value graph in Figures 2 and 3. As shown in Figure 2, receiving no military equipment corresponds with 0.287 expected civilian killings in a given county for a given year, whereas receiving the maximum amount corresponds with 0.656 killings. In other words, moving from the minimum to the maximum expenditure values, on average, increases civilian deaths by roughly 129%. As seen in Figure 3, counties that received no military equipment can expect to kill 0.068 fewer civilians, relative to the previous year, whereas those that received the maximum amount can expect to kill 0.188 more, holding all else constant.

Alternative dependent variable: dog casualties

While we believe that civilian casualty dependent variables provide the most direct test of our hypothesis, empirically establishing a causal relationship between killings and military transfers presents a challenge given the potential for endogeneity. Specifically, if LEAs anticipate future conflict with civilians (and they are correct) and thus seek more

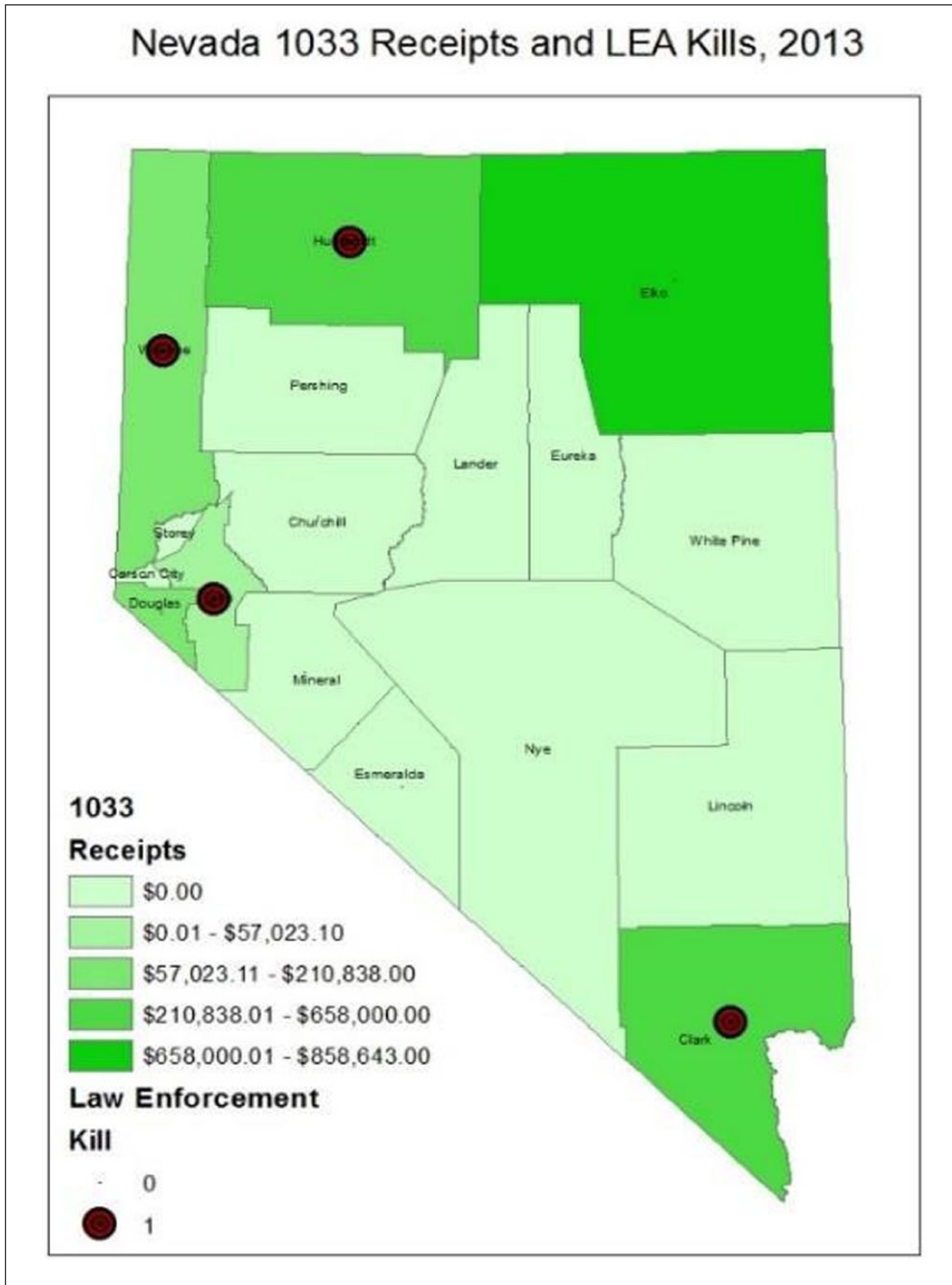


Figure 1. The relationship between 1033 transfers and law enforcement agency killings in Nevada counties in 2013. Map created in ArcMap 10.4 (Esri, 2016). Darker green counties received more military equipment. Those counties with a bullseye experienced at least one killing.

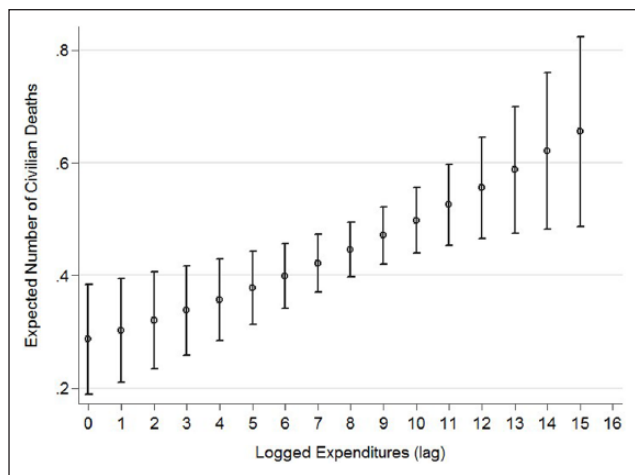
1033 transfers, then our estimates will be systematically biased. To account for this, we utilize an alternative dependent variable that should be independent of LEAs'

propensity to request and receive transfers: the number of dogs killed by police in a county for each included year (2006–2013). That is, we do not expect LEAs to consider

Table 1. Full regression results.

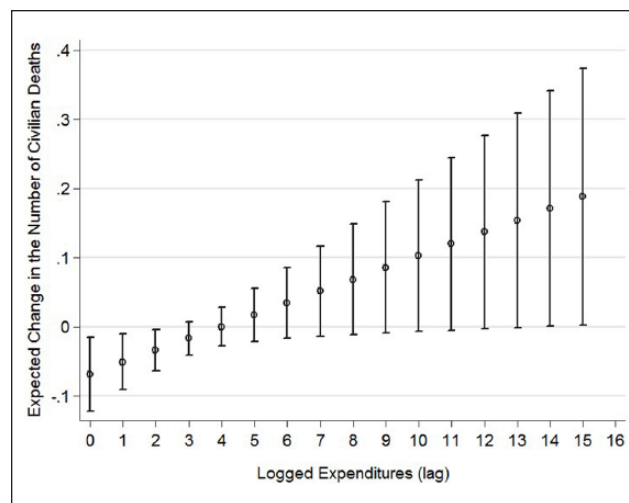
Variables	Civilian deaths	Change in civilian deaths
Expenditures (lag)	0.055** (0.023)	0.017* (0.01)
Civilian deaths (lag)	0.073* (0.04)	
Civilian death (mean)		-0.139* (0.054)
Violent crime	0.023 (0.044)	0.001 (0.056)
Civilian drug-use	-0.104 (0.094)	-0.06 (0.046)
Median income	-0.910* (0.549)	-0.006 (0.139)
Black population	-0.040 (0.162)	-0.023 (0.071)
Population	0.872** (0.339)	0.086 (0.132)
Constant	-0.387 (5.59)	-0.092 (1.921)
Observations	390	390

Note: clustered standard errors in parentheses: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

**Figure 2.** Expected number of killings over the range of the explanatory variable with 90% confidence intervals. All other variables held at their means.

the number of pets they will encounter when applying for military equipment. These data are taken from the Puppicide Database Project (2016), a crowdsourced database that provides the first nationwide database to track police shooting of animals.⁸

To test the relationship between lagged transfers and dogs killed by police, we estimate a negative binomial regression, including the same controls as the previous regressions (as well as a lagged dependent variable). Results, presented in Table 2, confirm that a positive relationship exists. Holding all else constant, police that

**Figure 3.** Expected change in killings over the range of the explanatory variable with 90% confidence intervals. All other variables held at their means.**Table 2.** Negative binomial regression results using dog casualties as the dependent variable.

Variables	Dog casualties
Expenditures (lag)	0.162* (0.093)
Dog casualties (lag)	0.217* (0.33)
Violent crime	0.043 (0.095)
Civilian drug-use	0.105 (0.337)
Median income	-0.015 (1.659)
Black population	0.848 (0.643)
Population	-0.361 (1.197)
Constant	-8.488 (19.562)
Observations	389

Note: clustered standard errors in parentheses: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

received the highest 1033 transfers kill dogs at an order of magnitude higher rate than those with no transfers (0.161 compared with 0.009). Such findings strengthen our confidence in the claim that military transfers are related to LEA violence.

Conclusion

Political scientists possess theoretical and methodological tools to weigh into today's debates about police violence. This study answers the call for evidence-based policy

analysis by Representative Ratcliffe and others as they continue to debate the merits of the 1033 program (Murtha, 2016). We acknowledge that the present analysis is relatively preliminary. Due to notoriously unavailable data on police violence against the public, we present what we consider to be a best attempt at establishing the proposed relationship between military transfers and violence.⁹ Further, while no research method offers full certainty of a causal effect, we attempt to increase the plausibility of the claim that 1033 transfers lead to more police violence. We do so by measuring the transfers in the previous year, as well as by leveraging three different dependent variables. While the first dependent variable – civilian killings – represents the most direct measure to test the claim, using the next two dependent variables – change in civilian killings and dog killings – helped bypass endogeneity concerns to an extent. As more social scientists take up this sort of research, we expect replication and extension of these results in different jurisdictions with different methods.

As for policy, our results suggest that implementing the EO to recall military equipment should result in less violent behavior and subsequently, fewer killings by LEAs. Taken together with work that shows militarization actually leads to more violence *against* police (Carriere, 2016; Wickes, 2015), the present study suggests demilitarization may secure overall community safety. The EO represents one avenue of demilitarization. However, given Kraska's (2007) typology, other aspects of militarization may be targeted. For example, perhaps training can affect cultural or operational militarization leading to less violent outcomes. Future work should explore the relationship, though the highly-decentralized nature of US police institutions presents serious challenges to systematic cross-sectional study.

The scope of the present study allows us to derive expectations at the organizational level. However, a focus on micro-foundations may yield interesting insights. Our paper cannot shed light on the effect of the military equipment on an individual's thought process in the field. Though the quote above suggests some officers "just like to play war," others work to remind us "We're just not out there running around like Rambo" (Perez, quoted in Mendelson, 2016). Whereas our analyses shed light on average effects, studies focusing on the individual level may offer more nuanced understanding of how and when military equipment affects certain officers.

Declaration of conflicting interest

The authors declare that there is no conflict of interest.

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Supplementary material

The supplementary files are available at <http://journals.sagepub.com/doi/suppl/10.1177/2053168017712885>.

Notes

1. Prohibited equipment includes tracked armored vehicles, bayonets, grenade launchers, large caliber weapons and ammunition (> 0.50 caliber). Controlled equipment (including wheeled armored or tactical vehicles, specialized firearms and ammunition, explosives and pyrotechnics, and riot equipment) may be acquired if the law enforcement agency provides additional information, certifications, and assurances.
2. Just weeks before, US Senator Patrick Toomey introduced a similar bill to the Senate called the "Lifesaving Gear for Police Act" (Toomey, 2016).
3. We chose these states due to data availability. We have no reason to believe that the data availability reflects systematic patterns that would affect our results. In fact, three of the states are from the same region (New England) and have very low crime rates. In this way, our sample represents a hard case. Although Nevada has high crime rates, the addition of a Nevada dummy does not substantively change the results (see Online Appendix, Table A3).
4. We chose Nevada due to the ease of seeing each county. We have no reason to believe that Nevada is a special case. In fact, adding a Nevada dummy does not substantively change the results (see Online Appendix, Table A3).
5. Citations after each control list a source for theoretical justification of the variable and a source of the data.
6. We log each of the listed controls except drug use to reduce skewness (Bland and Altman, 1997).
7. It is possible that that temporal dependencies also exist, which could potentially affect our standard errors. To account for this, we re-estimate all models including a dummy variable for each year (using 2007 as a reference category). The results are presented in Table A4 in the Online Appendix. As shown, the effect of military transfers holds across all regressions.
8. This database tracks all animals killed by police. In the county-years included in our analysis, only dog killings were observed.
9. Data limitations also preclude us from distinguishing between legitimate and illegitimate forms of violence.

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