Do Schooling Cutoff Dates Influence Crime? Evidence from Florida and Illinois

Colin Adams*

Third-Year Paper †

Abstract

This paper investigates whether school entry cutoff dates causally influence long-run prison admissions. Using administrative prison data from Florida and Illinois, two states that gradually moved up their kindergarten eligibility cutoff dates by one month per year during the 1980s, I exploit quasi-random assignment of school start age based on date of birth to estimate effects on incarceration. Children born just after the cutoff were required to delay kindergarten entry by a year, which reduced their required schooling and altered peer interactions during formative years. I combine a fuzzy regression discontinuity design with a Poisson model to estimate the impact of this delayed entry on prison admissions later in life. Leveraging temporal variation in school entry cutoffs, I link school start age to incarceration outcomes observed decades later and offer novel evidence on how school start age can shape long-run criminal outcomes using administrative data.

*Ph.D. Student in Economics, Florida State University (colinpadams.com | ca23a@fsu.edu) I am grateful to Carl Kitchens and Luke Rodgers for their invaluable advice and support on this project.

†Last updated on July 10, 2025. You can see the most recent version of this paper here.

I Introduction

There is a large literature connecting human capital accumulation to criminal behavior, both in theory (e.g. Becker 1968, Ehrlich 1973, and Lochner 2004) and empirical work (e.g. Angrist and Krueger 1991, Lochner and Moretti 2004, and Anderson 2014). Education raises the opportunity cost of crime, making criminal activity less appealing and shifting the margin for those choosing between legal and illegal behavior. In this paper, I exploit an understudied source of variation in crime economics: the birthday cutoff to start kindergarten. These cutoffs determine whether a child starts kindergarten at age four or five, depending on their date of birth.

I use variation in school starting age that comes from policy reforms in Florida and Illinois during the 1980s. Both states gradually moved their kindergarten eligibility cutoffs earlier in the calendar year. This change caused children born just after the new cutoff date to delay kindergarten by a year. I examine whether this delay affects adult incarceration.

Two channels may explain how school entry cutoffs affect crime. The first is what I call the peer and maturity channel. A child born just after the cutoff becomes one of the oldest in their grade, while a child born just before is one of the youngest. This relative age can shape a child's academic performance and social development. Both Black, Devereux, and Salvanes (2011) and Fredriksson and Ockert (2013) find being older at school entry improves educational performance, although long-run consequences remain ambiguous. Dobkin and Ferreira (2010) find that starting school earlier lowers test scores initially, increases schooling, and has mixed effects on adult wages and employment.

The second channel relates to human capital accumulation. Historically, all compulsory schooling laws are based solely on age rather than grade level or achievement. In most states, including Florida and Illinois, students can leave school at sixteen with parental permission or at eighteen without it. Several papers exploit this structure. Angrist and Krueger (1991) use quarter of birth as an instrument for education, showing that additional schooling leads to higher earnings. Lochner and Moretti (2004) use state-level changes in compulsory schooling laws and find that more education reduces arrests and incarceration. Hjalmarsson, Holmlund, and Lindquist (2015) reach similar conclusions using Swedish data. Variation in cutoffs is particularly important in my context, as demographic groups with high crime rates are also those most likely to exit before completing high school (Lochner and Moretti 2004).

Although less relevant when studying the school entry cutoff, the relationship between schooling and crime is strengthened by incapacitation effects. Anderson (2014) finds that when the legal dropout age is lowered, juvenile crime increases. Bell, Costa, and Machin (2022) finds evidence of both a short-term and long-term incapacitation effect caused by compulsory schooling, with the long-term effect stemming from individuals' reduced likelihood of exposure to criminal environments during adolescence.

My paper makes a novel contribution by linking school entry age and compulsory schooling to long-run incarceration with administrative data. Depew and Eren (2016) find that delayed school entry age reduces juvenile crime among black females and reduces the severity of their crimes. They find no evidence of an effect on males. Other papers, such as Cook and Kang (2016) in North Carolina and Landersø, Nielsen, and Simonsen (2015) in Sweden, find being born just after the cutoff to cause more crime for individuals before they are nineteen. Closest to my study, McAdams (2016) uses U.S. Census data and finds that earlier school entry cutoffs reduce adult incarceration overall, but increases incarceration for those whose start was delayed do to changes in the cutoff. None of the papers in the literature link school starting age cutoffs and delayed school entry to long-run criminal activity.

A similar identification strategy appears in Arenberg, Neller, and Stripling (2024), who use Medicaid eligibility cutoffs based on date of birth to estimate the long-run effects of childhood healthcare access on incarceration. Using Florida prison data, they find that Medicaid access reduces incarceration rates for Black youth, particularly for financially motivated offenses.

This paper contributes to the literature by using Florida and Illinois administrative prison data to exploit the gradual change of school entry cutoffs in the 1980s. Because the reforms were enacted after the affected cohorts were conceived, this, in combination with compulsory schooling laws, generates plausibly exogenous variation in school start age and required schooling. I estimate the causal effect of being born after the cutoff on prison admissions using a fuzzy regression discontinuity design and a Poisson model.

II Institution

School entry cutoffs refer to the date used to determine whether a child starts school that year or must wait until the following year[1]. In both Florida and Illinois, children must turn five on or before the cutoff date of the school year to be eligible to begin kindergarten that same school year. Prior to any variation I exploit, Florida had a kindergarten birthday cutoff of January 1 and Illinois had a cutoff of December 1. Thus, children in Florida must turn five on or before January 1 of the school year in which they begin kindergarten. This creates a discontinuity where the running variable is date of birth. Children born on January 1 and January 2 are only one day apart, but the older child begins school a full year earlier. Additionally, because compulsory schooling laws are age-based, they become eligible to leave school only one day apart. Thus the cutoff alone causes those born after January 1 to receive a year less of required schooling. Similar examples hold for Illinois where the cutoff was December 1 initially.

Prior to the 1980 – 1981 school year, neither state had changed the cutoff date since their inception in 1965 and 1895 for Florida and Illinois, respectively (Florida Senate Committee on Education Innovation 1999 and Education Week 1987). In 1978, Florida House Bill 1036 was proposed in Florida to move the kindergarten birthday cutoff by one month per year for four years. This policy ultimately moved the cutoff from January 1 to September 1 over four years. Florida House Bill 1036 was enacted in 1979 and began to take effect in the 1980 − 1981 school year where the school cutoff date became December 1st rather than January 1st. This initially delayed the school start of children born between December 2, 1975 and January 1, 1976 (inclusive) (Florida Legislature 1979).

Illinois had a similar change in kindergarten cutoff proposed in 1984, with the Illinois General Assembly enacting it in 1985 (Education Week 1987). This law also moved the cutoff by one month per year, but for only three years (Illinois's cutoff was already a month earlier than Florida's). This first affected the cohort beginning kindergarten in 1986–1987, whose cutoff date moved from December 1st to November 1st. This delayed the school start of children born between November 2, 1981 and December 1, 1981 (inclusive). I include a timeline of the change in cutoff dates for Florida and Illinois relative to the initial year in figure 1 as well as a more detailed version in table 2 of

[1] I use kindergarten and school cutoffs synonymously.

the appendix. These cutoffs remained constant in Florida and Illinois for decades following these changes (Education Commission of the States 2014).

In addition to the initial birthdays delayed which I mention above, each subsequent year, an additional month of birthdays was delayed until each state had a cutoff of September 1[2]. This creates additional discontinuities, which I pool since subsequent cutoffs should not be influenced by earlier changes. I include observations within a month bandwidth for each change in the cutoff.

Importantly, neither Florida nor Illinois experienced changes in the minimum age at which students could legally withdraw from school[3] during the sample period (Florida Legislature 1970; Illinois General Assembly 1970; Illinois State Board of Education 1983; Angrist and Krueger 1991; Knapp et al. 2025). Students in Florida could not drop out until the age of sixteen with a parent or guardian's permission. While those in Illinois were required to attend school until seventeen. Only then could they leave with a parent or guardian's permission. Upon turning eighteen in either state, an individual is then considered an adult and can leave school without any permission from a parent or guardian. Thus all variation in the amount of required schooling for these individuals is solely determined by the time that they can enroll in kindergarten[4].

III Data

I use public data from the Florida Offender-Based Information System (FOBIS) and Illinois Department of Corrections (IDOC). FOBIS includes all Florida prisoners admitted since 1981, while IDOC includes those in Illinois since 2005[5]. Most importantly, both datasets include the date of birth for all prisoners admitted so that I can know when they were eligible to start school[6]. Other

[2]Those delayed include individuals born between the following dates (inclusive) in Florida: November 2, 1976 – January 31, 1977, October 2, 1977 – January 1, 1978, and September 2, 1978 – January 1 1979. The following were also delayed in Illinois: November 1 – December 1, 1981, October 2 – December 1, 1982, and September 2 – December 1, 1983.

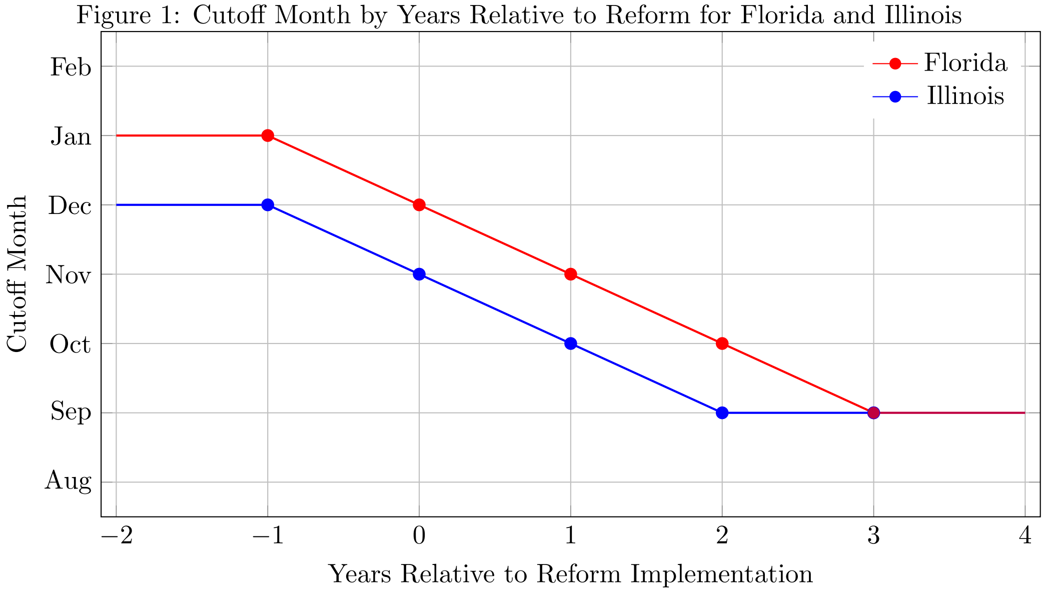
[3]Defined as the upper bound of compulsory schooling.

[4]This is under the assumption that parents always enrolled students in school when they were first eligible for kindergarten as compulsory schooling laws at the time allowed children to legally be out of school until six in Florida and seven in Illinois (Angrist and Krueger 1991; Florida Legislature 1970; Illinois General Assembly 1970). Failure to meet this assumption results in attenuation bias.

[5]The initially affected cohort in Indiana were twenty-four in 2005. This will attenuate the estimated effect in Illinois since I don't capture crimes during early adult years for these individuals. This is shown in table 3 of the appendix.

[6]I make the implicit assumption that all prisoners observed grew up in the same state they went to prison in. This is likely not the case, and will attenuate my results since I do not have data on where prisoners started school or were born.

Figure 1: Cutoff Month by Years Relative to Reform for Florida and Illinois



Note: The school cutoff always took place on the first of the month. Florida implemented the reform in the 1980 – 1981 school year while Illinois did so in the 1986 – 1987 school year. These school years serve as year 0 in the figure. Based on information from Florida Senate Committee on Education Innovation (1999), Florida Legislature (1979), and Education Week (1987). A more detailed version of this is included in table 2 within the appendix.

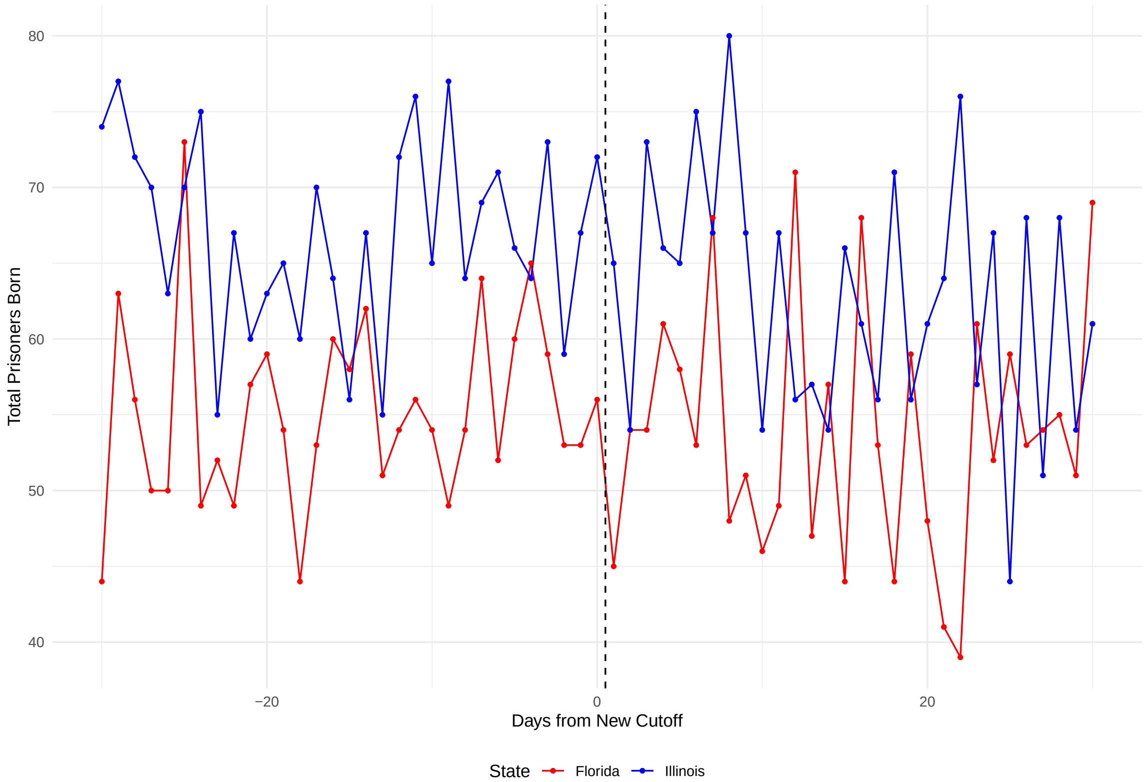
demographic information is available, including race, gender, and offense type.

Because the cutoff moved up one month per year for four years in Florida and three in Illinois, I pool observations across both states and each cutoff change. Figure 2 displays pooled admissions by state relative to the cutoff and figures 6 and 7 in the appendix give more detailed admissions for each state's new cutoff. Unobservable differences in Florida and Illinois may create heterogeneous effects, so I include state fixed effects to account for time-invariant differences between states[7]. Thus the estimate is the local average treatment effect (LATE) of the change across Florida and Illinois for each change.

Each law was enacted in the year prior to taking effect. Since the full roll-out in each state took fewer than five years, I can exploit the discontinuity at each new cutoff since all children were born before the policy was proposed. This timing ensures that parents could not have timed births in response to the policy. Assuming that birthdays are as good as random around the new cutoffs gives appropriate exogeneity lending to a regression discontinuity design (RDD)[8].

[7]I will report results on only Florida and only Illinois in addition to both of them in the future.
[8]This assumption is common in the literature (e.g. Angrist and Krueger 1991 and Cook and Kang 2016).

Figure 2: Number of Prisoners Born in Florida and Illinois Relative to All New Cutoffs



Note: Figure is based on Florida OBIS and IDOC data and includes the number of born on every date of birth relative to each new kindergarten start cutoff date for Florida and Illinois. These new cutoffs are December 1, 1975, November 1, 1976, October 1, 1977, and September 1, 1978 in Florida and November 1, 1981, October 1, 1982, and September 1, 1983 in Illinois. This graph only include birth dates within thirty days of a new kindergarten cutoff date in Florida or Illinois. Figures 6 and 7 in the appendix include the number of prisoners for each new cutoff for Florida and Illinois, respectively.

IV Identification Strategy

IV.A Regression Discontinuity Design

I begin with a bandwidth of one month around the cutoff. This includes individuals born up to thirty-one days before or after the cutoff. I define my running variable, $Distance_{ds}$, as in equation 1.

$$Distance_{ds} = DateOfBirth_d - Cutoff_{ds} \tag{1}$$

Here, $Distance_{ds}$ is the number of days between the date of birth, $DateOfBirth_d$, and its corresponding cutoff date, $Cutoff_{ds}$, in state s. $Distance_{ds}$ can take both positive and negative values. $Cutoff_{ds}$ is the kindergarten entry cutoff in effect in state s for the cohort born on date d[9]. I show the RDD in equation 2.

$$\begin{aligned} Admissions_d = \beta_0 + \beta_1\, Delayed_d + \beta_2\, Distance_{ds} \\ + \beta_3\, Delayed_d \times Distance_{ds} + State_s + \epsilon_d \end{aligned} \tag{2}$$

Here, $Admissions_d$ is the number of prisoners admitted at some point with the birthday d. $Delayed_d$ is an indicator equal to one if $Distance_{ds}$ is greater than 0, meaning that individuals born on day d in state s were delayed kindergarten entry a year due to the change in birthday cutoff for their cohort. $State_s$ is a state fixed effect which is required due to the policy implementation occurring in two states.

β_1 is the local average treatment effect (LATE) of a delayed kindergarten start date on the number of prisoners born on a given day. This LATE is identified under two assumptions: (1) that births are as-good-as-random around the cutoff, and (2) a monotonicity assumption. The monotonicity assumption in this case being that no parents choose to delay school entry if their child is born before the cutoff, and would choose to petition for their child to start early if they were born after the cutoff. If β_1 is statistically significant, then there is a discontinuous change in the number of prisoners born just after the cutoff compared to before. A positive β_1 provides evidence of increased rates of incarceration due to being born after the cutoff. Thus the combination of being the oldest in your cohort and being required to have up to one year less of education increased the likelihood of incarceration.

IV.B Poisson Model

Additionally, I measure the difference in incarcerations of individuals with birthdays relative to the cutoff using a Poisson pseudo-maximum likelihood (PPML) model where the unit of observation is date of birth (Santos Silva and Tenreyro 2006). This accounts for a plausibly nonlinear relationship between the birthday relative to the cutoff and incarceration as Fredriksson and Ockert (2013) found

[9] This is either December 1, November 1, October 1, or September 1 in Florida and November 1, October 1, or September 1 in Illinois.

nonlinear effects of start cutoffs on educational attainment. The specification in equation 3 allows me to estimate the percentage change in incarceration associated with being born just after the school entry cutoff.

$$\begin{aligned} log(E\,[Admissions_d]) &= \alpha_0 + \alpha_1\, Delayed_d + \alpha_2\, Distance_{ds} \\ &\quad + \alpha_3\, Delayed_d \times Distance_{ds} + State_s \end{aligned} \tag{3}$$

Here, $Admissions_d$ is the number of individuals ever admitted to prison who were born on day d just as in the RDD. $Delayed_d$, $Distance_{ds}$, and $State_s$ are the same as in the RD model in equation 2, but at the date level. I calculate the log of the expectation using the specification in equation 4 where X_d includes all regressors in the EDD (equation 3): $Delayed_d$, $Distance_{ds}$, $State_s$.

$$log(E\,[Admissions_d]) = X_d\,\delta \tag{4}$$

The coefficient of interest is α_1 which captures the semi-elasticity of prison admission with respect to the cutoff. Specifically, $(\exp(\alpha_1) - 1)\%$ more prison admissions occurred for individuals born just after the cutoff relative to those born just before. This model accounts for potential nonlinearity in the relationship between birth day and incarceration risk and allows for a flexible functional form.

V Results

V.A Florida

Results of the RD model in Florida are in columns one and two of table 1. Column one is the RD in equation 2 without the state indicator, since Illinois data isn't included, and column two includes a squared term for distance to the cutoff with the appropriate interactions[10]. I find no significance indicating no discontinuity of prisoners at the kindergarten entry cutoff in Florida. This gives no evidence towards the placement of the kindergarten school entry affecting crime rates for those within thirty days of the cutoff. The RD plot for Florida is included in figure 8 of the appendix.

[10] Equations 5 and 6 in the appendix represent the models displayed in columns one and two of table 1, respectively.

V.B Illinois

Results of the RD model in Illinois are in columns three and four of table 1. Column two is the RD in equation 2 without the state indicator, since Florida data isn't included, and column two includes a squared term for distance to the cutoff with the appropriate interactions[11]. I find no significance indicating no discontinuity of prisoners at the kindergarten entry cutoff in Illinois. This gives no evidence towards the placement of the kindergarten school entry affecting crime rates for those within thirty days of the cutoff. The RD plot for Illinois is included in figure 9 of the appendix.

V.C Florida and Illinois

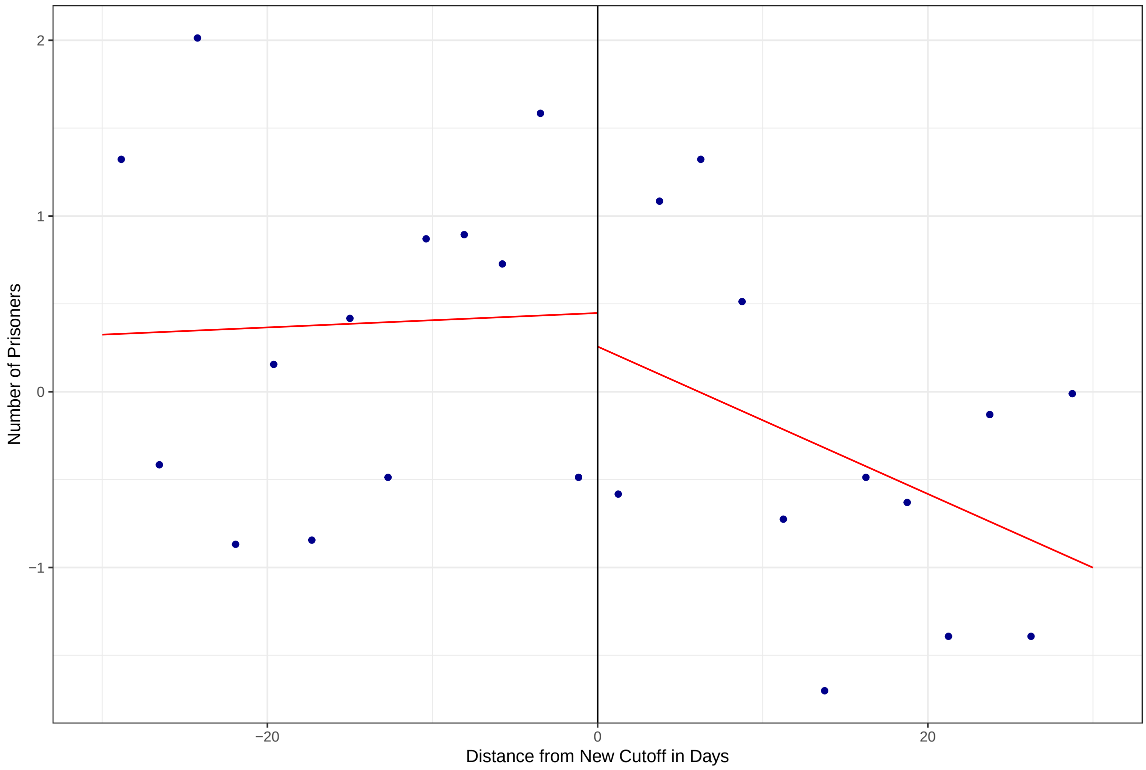
Results of the RD model in equation 2 are presented in column six of table 1. Columns five is the results of equation 2 without a Florida fixed effect, so it does not account for the level differences in prisoners between Florida and Illinois as column six does. Columns seven and eight are similar to columns five and six but include a squared term for $Distance_{ds}$ along with an interaction between this squared term and $Delayed_d$. This model, with the state indicator, is presented in equation 7 in the appendix.

RD graphs are presented in figures 3 and 4. Figure 3 represents the linear RD model without a state indicator and corresponds to column five of table 1. Figure 4 also represents a linear model, but includes a state fixed effect. Figure 4 corresponds to column six of table 1.

In all models with data from both states, I find no significance aside from the Florida indicator. The significance of the indicator is due to Illinois having a higher crime rate and thus more prisoners than Florida during the period of interest. I find no evidence of more prisoners being born after the cutoff. This gives no evidence of changing kindergarten age cutoffs affecting crime rates nor differences in education which may change the crime rate.

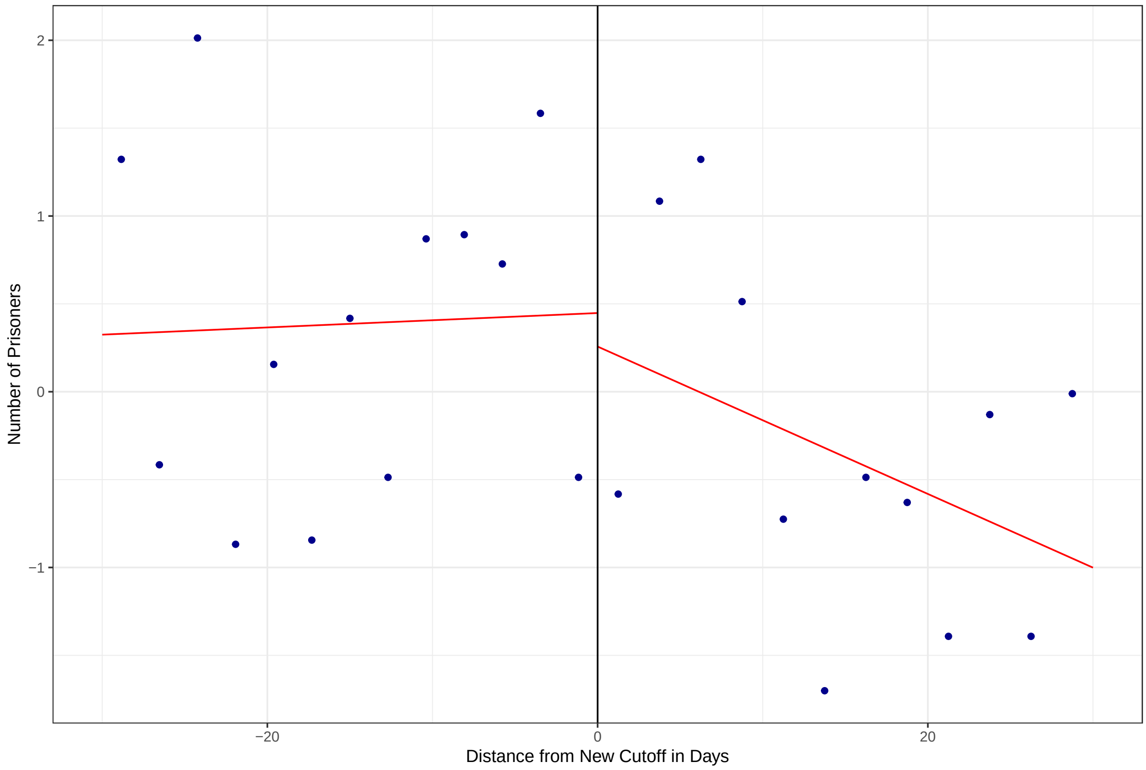
[11] Equations 5 and 6 in the appendix represent the models displayed in columns three and four of table 1, respectively.

Figure 3: Linear RD Plot of Florida and Illinois Prisoners Relative to Cutoff without FEs



Note: The horizontal axis is the number of days to the new kindergarten entry cutoff and is normalized to zero. An individual with a distance greater than zero to the cutoff was delayed school entry due to the change in policy. Zero corresponds to either December 1, 1982, November 1, 1983, October 1, 1984, or September 1, 1985 in Florida and either November 1, 1986, October 1, 1987, or September 1, 1988 in Illinois.

Figure 4: Linear RD Plot of Florida and Illinois Prisoners Relative to Cutoff with FEs



Note: The horizontal axis is the number of days to the new kindergarten entry cutoff and is normalized to zero. An individual with a distance greater than zero to the cutoff was delayed school entry due to the change in policy. Zero corresponds to either December 1, 1982, November 1, 1983, October 1, 1984, or September 1, 1985 in Florida and either November 1, 1986, October 1, 1987, or September 1, 1988 in Illinois.

Table 1: Second Stage Regression Discontinuity Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Delayed	-0.872	-0.083	0.176	-1.242	-0.423	-0.423	-0.580	-0.580
	(1.069)	(1.618)	(1.422)	(2.145)	(1.157)	(0.863)	(1.750)	(1.304)
Distance	0.027	0.027	-0.015	0.296	0.009	0.009	0.142	0.142
	(0.042)	(0.016)	(0.056)	(0.216)	(0.045)	(0.034)	(0.176)	(0.131)
Delayed x Distance	-0.021	-0.169	-0.075	-0.402	-0.044	-0.044	-0.269	-0.269
	(0.061)	(0.245)	(0.081)	(0.324)	(0.066)	(0.049)	(0.264)	(0.197)
Distance^2		0.000		0.010			0.004	0.004
		(0.005)		(0.007)			(0.006)	(0.004)
Florida						-8.007***		-8.007***
						(0.435)		(0.436)
Florida	X	X			X	X	X	X
Illinois			X	X	X	X	X	X
State FEs						X		X
Bandwidth (Days)	30	30	30	30	30	30	30	30
N (Days of Birth)	244	244	183	183	427	427	427	427
N (Prisoners)	3,325	3,325	3,959	3,959	7,284	7,284	7,284	7,284

Note: Standard errors reported in parenthesis. The dependent variable is the number of prisoners born on that date. The threshold is a dummy indicating that people born in that state on that date of birth had their kindergarten start date moved after they were born. *significant at 10%, **significant at 5%, ***significant at 1%.

VI Appendix

Table 2: Kindergarten Cutoff Birthday by State and Year

State	Pre-1980	1980	1981	1982	1983	1984-1985	1986	1987	1988	Post-1988
Florida	Jan 1	Dec 1	Nov 1	Oct 1	Sept 1	Sept 1	Sept 1	Sept 1	Sept 1	Sept 1
Illinois	Dec 1	Dec 1	Dec 1	Dec 1	Dec 1	Dec 1	Nov 1	Oct 1	Sept 1	Sept 1

Note: Based on information from Florida Senate Committee on Education Innovation (1999), Florida Legislature (1979), and Education Week (1987).

Table 3: Prison Admissions Data Available in Illinois by Age

Birthday Cohort	20	21	22	23	24	25	26
Dec 2, 1979 – Dec 1, 1980						X	X
Dec 2, 1980 – Nov 1, 1981					X	X	X
Nov 2, 1981 – Oct 1, 1982				X	X	X	X
Oct 2, 1982 – Sept 1, 1983			X	X	X	X	X
Sept 2, 1983 – Sept 1, 1984		X	X	X	X	X	X
Sept 2, 1984 – Sept 1, 1985	X	X	X	X	X	X	X
Sept 2, 1985 – Sept 1, 1986	X	X	X	X	X	X	X

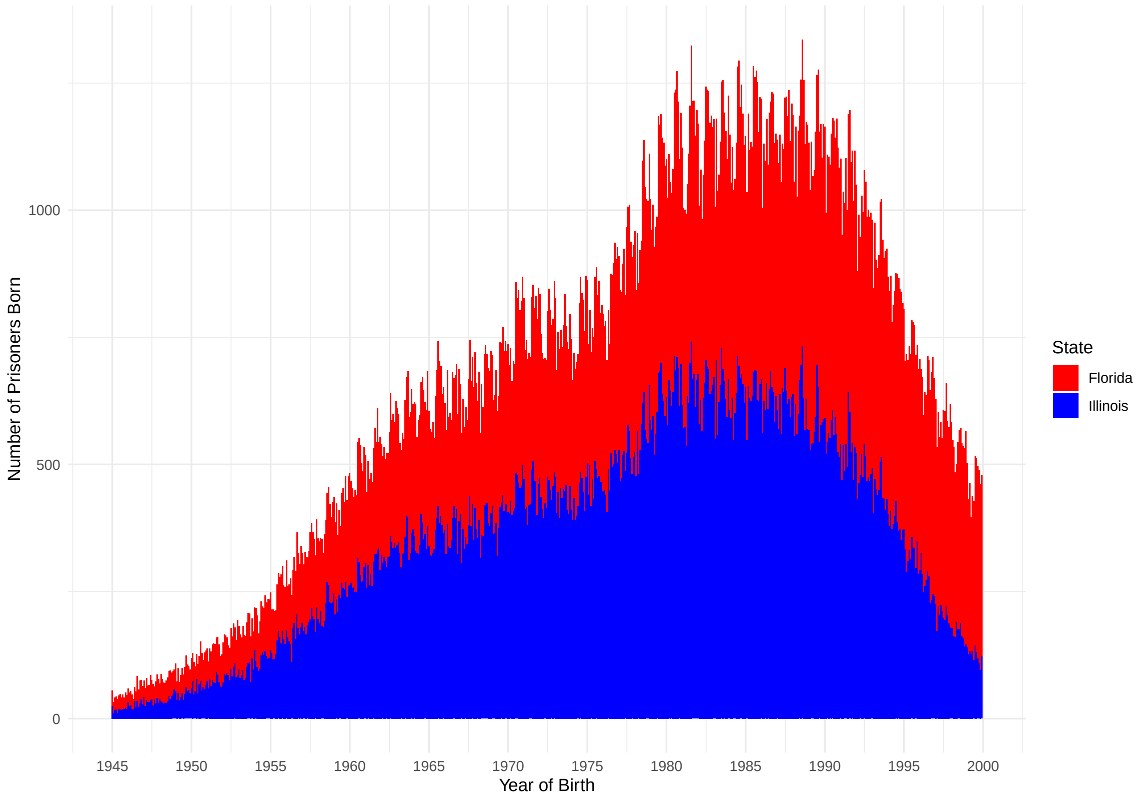
Note: Illinois Department of Corrections (IDOC) prison admissions data is only available from 2005 onward. As a result, the number of observed years of criminal history increases for later cohorts. I observe admissions data starting at age 24 for the first cohort affected by the policy, and gain an additional year for each subsequent cohort.

$$\begin{aligned} Admissions_d = \beta_0 + \beta_1\, Delayed_d + \beta_2\, Distance_{ds} \\ + \beta_3\, Delayed_d \times Distance_{ds} + \epsilon_d \end{aligned} \tag{5}$$

$$\begin{aligned} Admissions_d = \beta_0 + \beta_1\, Delayed_d + \beta_2\, Delayed_d^2 + \beta_3\, Distance_{ds} \\ + \beta_4\, Delayed_d \times Distance_{ds} + \beta_5\, Delayed_d \times Distance_{ds}^2 + \epsilon_d \end{aligned} \tag{6}$$

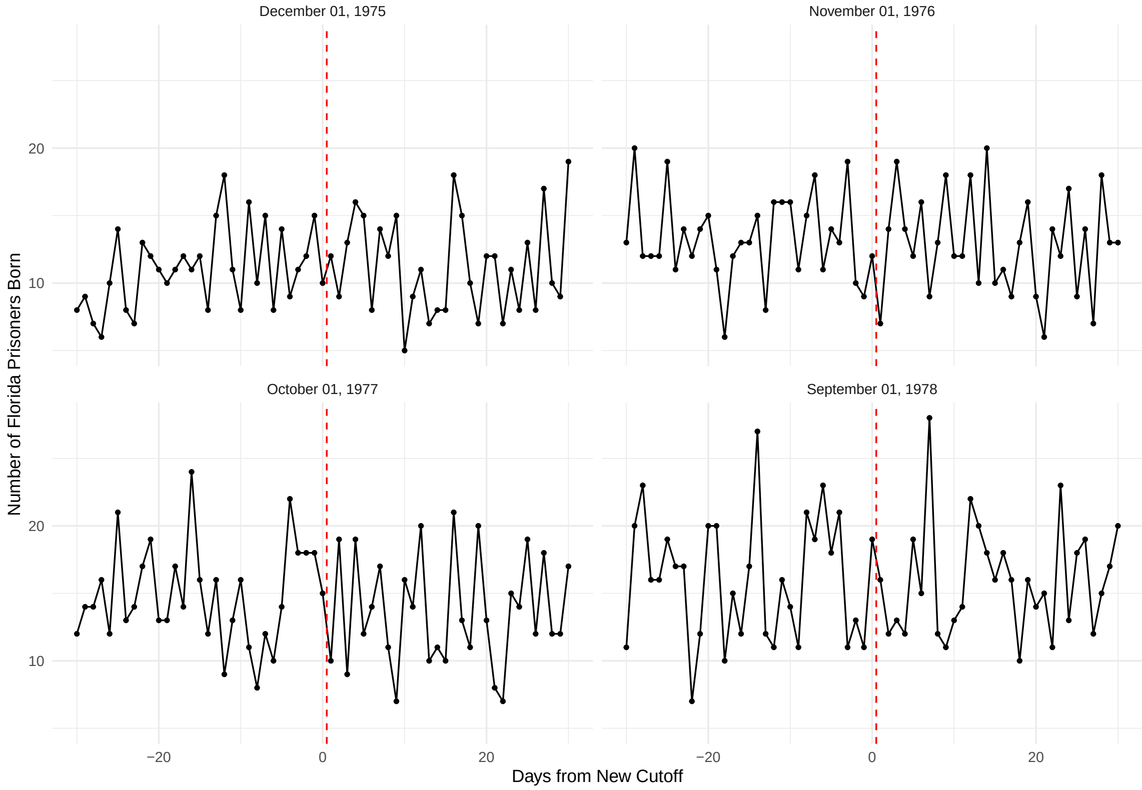
$$\begin{aligned} Admissions_d = \beta_0 + \beta_1\, Delayed_d + \beta_2\, Delayed_d^2 + \beta_3\, Distance_{ds} + \beta_4\, State_s \\ + \beta_5\, Delayed_d \times Distance_{ds} + \beta_6\, Delayed_d \times Distance_{ds}^2 + \epsilon_d \end{aligned} \tag{7}$$

Figure 5: Prisoners by Month of Birth in Florida and Illinois



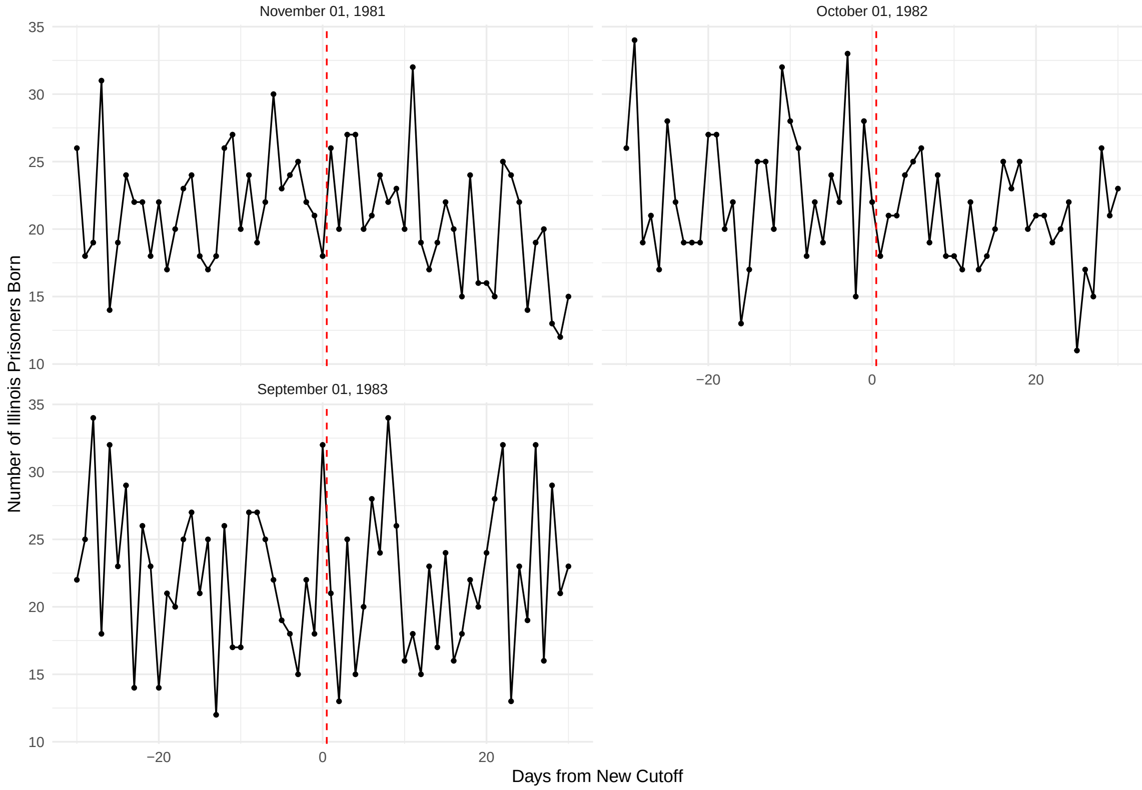
Note: Figure is based on Florida OBIS and IDOC data and includes the number of prisoners born each month.

Figure 6: Number of Prisoners Born in Florida Relative to All New Cutoffs



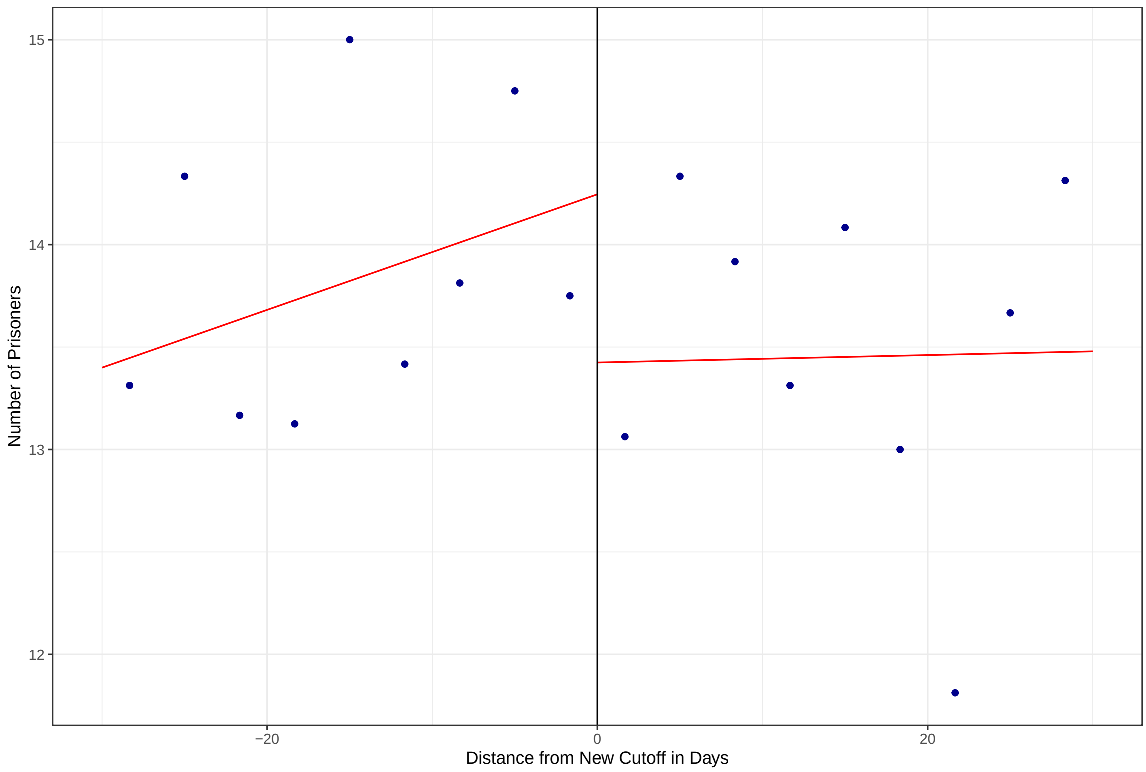
Note: Figure is based on Florida OBIS data and includes the number of prisoners born within thirty days of each new kindergarten entry cutoff age.

Figure 7: Number of Prisoners Born in Illinois Relative to All New Cutoffs



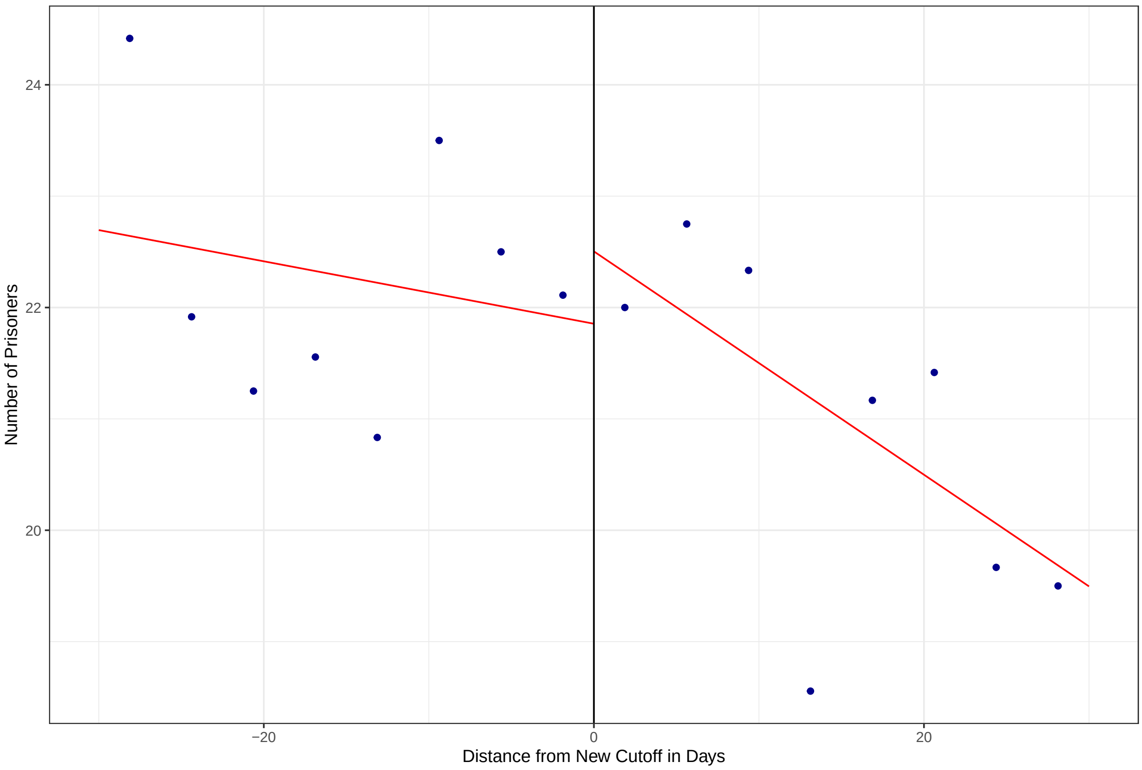
Note: Figure is based on IDOC data and includes the number of prisoners born within thirty days of each new kindergarten entry cutoff age.

Figure 8: Linear RD Plot of Florida Prisoners



Note: This figure comes from the RDD in equation 5. Figure only includes days of birth within thirty days of the new cutoff. The horizontal axis is the number of days to the new kindergarten entry cutoff and is normalized to zero. An individual with a distance greater than zero to the cutoff was delayed school entry due to the change in policy. Zero corresponds to either December 1, 1982, November 1, 1983, October 1, 1984, or September 1, 1985 in Florida and either November 1, 1986, October 1, 1987, or September 1, 1988 in Illinois.

Figure 9: Linear RD Plot of Illinois Prisoners



Note: This figure comes from the RDD in equation 5. Figure only includes days of birth within thirty days of the new cutoff. The horizontal axis is the number of days to the new kindergarten entry cutoff and is normalized to zero. An individual with a distance greater than zero to the cutoff was delayed school entry due to the change in policy. Zero corresponds to either December 1, 1982, November 1, 1983, October 1, 1984, or September 1, 1985 in Florida and either November 1, 1986, October 1, 1987, or September 1, 1988 in Illinois.

References

Anderson, D. M. (2014). “In School and Out of Trouble? The Minimum Dropout Age and Juvenile Crime”. *Review of Economics and Statistics* 96.2, pp. 318–331.

Angrist, J. D. and A. B. Krueger (1991). “Does Compulsory School Attendance Affect Schooling and Earnings?” *Quarterly Journal of Economics* 106.4, pp. 979–1014.

Arenberg, S., S. Neller, and S. Stripling (2024). “The Impact of Youth Medicaid Eligibility on Adult Incarceration”. *American Economic Journal: Applied Economics* 16.1, pp. 121–156.

Becker, G. S. (1968). “Crime and Punishment: An Economic Approach”. *Journal of Political Economy* 76.2, pp. 169–217.

Bell, B., R. Costa, and S. Machin (2022). “Why Does Education Reduce Crime?” *Journal of Political Economy* 130.3, pp. 732–765.

Black, S. E., P. J. Devereux, and K. G. Salvanes (2011). “Too Young to Leave the Nest? The Effects of School Starting Age”. *Review of Economics and Statistics* 93.2, pp. 455–467.

Cook, P. J. and S. Kang (2016). “Birthdays, Schooling, and Crime: Evidence from a Regression Discontinuity Design”. *Economic Journal* 126.593, pp. 107–134.

Depew, B. and Ö. Eren (2016). “Born on the Wrong Day? School Entry Age and Juvenile Crime”. *Journal of Urban Economics* 96, pp. 73–90. DOI: 10.1016/j.jue.2016.01.005.

Dobkin, C. and F. Ferreira (2010). “Do School Entry Laws Affect Educational Attainment and Labor Market Outcomes?” *Economics of Education Review* 29.1, pp. 40–54.

Education Commission of the States (2014). “State Kindergarten Policies”. *Education Commission of the States Reports* 2014. URL: https://www.ecs.org/clearinghouse/79/58/7958.pdf.

Education Week (June 1987). “Legislatures, Districts Move to Raise Age for Kindergarten”. *Education Week*. URL: https://www.edweek.org/education/legislatures-districts-move-to-raise-age-for-kindergarten/1987/06.

Ehrlich, I. (1973). “Participation in Illegitimate Activities: A Theoretical and Empirical Investigation”. *Journal of Political Economy* 81.3, pp. 521–565.

Florida Legislature (1970). “Florida Statutes, Title XLVIII, Chapter 232: Compulsory School Attendance”. *State of Florida Legislative Documents*. No amendments raising the dropout age from 1970 to 1999. URL: http://www.leg.state.fl.us/Statutes/.

Florida Legislature (1979). “Summary of General Legislation: 1979”. *Florida State University Law Library Digital Collections*. URL: https://library.law.fsu.edu/Digital-Collections/FLSumGenLeg/FlSumGenLeg1979.pdf.

Florida Senate Committee on Education Innovation (1999). “Bill Analysis and Economic Impact Statement: House Bill 307”. *Florida Senate Bill Analyses*. URL: https://www.flsenate.gov/Session/Bill/1999/307/Analyses/19990307HEDK_HB0307S1.EDK.pdf.

Fredriksson, P. and B. Ockert (2013). “Life-Cycle Effects of Age at School Start”. *Economic Journal* 124.579, pp. 977–1004.

Hjalmarsson, R., H. Holmlund, and M. J. Lindquist (2015). “The Effect of Education on Criminal Convictions and Incarceration: Causal Evidence from Micro-data”. *Economic Journal* 125.587, pp. 1290–1326.

Illinois General Assembly (1970). “School Code of Illinois: Compulsory Attendance Law (105 ILCS 5/26-1)”. *State of Illinois Legislative Documents*. No amendments raising the dropout age from 1970 to 1999. URL: https://www.ilga.gov/legislation/ilcs/ilcs5.asp?ActID=1005&ChapterID=17.

Illinois State Board of Education (1983). “Compulsory Attendance Mandate Report and Preliminary Recommendations: The Age of Leaving School”.

Knapp, D. et al. (2025). "Gateway Policy Explorer: USA Compulsory Schooling Policy Details, 1900–2024".

Landersø, R., H. S. Nielsen, and M. Simonsen (2015). "School Starting Age and the Crime-Age Profile". *Economic Journal* 127.602, pp. 1096–1118.

Lochner, L. (2004). "Education, Work, and Crime: A Human Capital Approach". *International Economic Review* 45.3, pp. 811–843.

Lochner, L. and E. Moretti (2004). "The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self-Reports". *American Economic Review* 94.1, pp. 155–189.

McAdams, J. M. (2016). "The Effect of School Starting Age Policy on Crime: Evidence from U.S. Microdata". *Economics of Education Review* 54, pp. 227–241.

Santos Silva, J. M. C. and S. Tenreyro (2006). "The Log of Gravity". *The Review of Economics and Statistics* 88.4, pp. 641–658.