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Shefain Jamila Islam April 10, 2018

Education Funding and Dropout Trends in Abbott Districts:

An Empirical Analysis of a New Jersey Legal Ruling

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Abstract

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Education funding is a topic of controversy across the United States. New Jersey has been attempting to correct education inequity caused by education-funding laws through a series of reforms. The Abbott laws and rulings are the most famous education-funding reforms that New Jersey has made. Using panel data from the State of New Jersey Department of Education, this paper studies the effect of Judge Neil Schuster's 2005 ruling regarding the Abbott reforms on dropout trends in 27 of the designated Abbott school districts. In this study, the fixed effects model is primarily used. The fixed effects model identifies some statistically significant effects of the 2005 Abbott ruling on dropout, but further research is required for a more comprehensive understanding of the effect of the 2005 Abbott ruling on school outcomes.

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I: Introduction

School districts historically have relied heavily on local property tax revenue in order to fund their schools. NPR reports on the U.S. school funding structure and wrote "In the U.S., school funding comes from… 45 percent local money, 45 percent from the state and 10 percent federal" (Turner et al., 2016). Property values, and therefore property tax revenues, vary greatly across school districts. The disparities in property tax revenues create disparities in quality of education and per pupil expenditure. While Radnor Township School District in Pennsylvania spends $15,544 per year per student, a school district nearby, the Daniel Boone Area School District, only spends $11,609 per year per student (Turner et al., 2016). School districts in low-income areas are trapped in a cycle of inadequate funding and poor education quality. The supreme courts in many states across the U.S. have declared the disparities in funding unconstitutional. The courts have ordered states to equalize funding. Additionally, amendments and laws have been enacted to further ameliorate education-funding inequity.

New Jersey has undergone multiple changes to their education funding legislation and structure. In 1990, the Abbott II ruling by the New Jersey Supreme Court upheld another ruling, which had found New Jersey's education funding law based on the Public School Education Act of 1975, as applied to 28 lower income urban school districts, unconstitutional (Education Law Center). It was argued that due to wealth disparities across school districts, students in lower income areas were not receiving a satisfactory level of education (Education Law Center). Abbott II was later expanded to apply to 31 school districts (Education Law Center). A series of cases followed regarding Abbott II. In 1997, Abbott IV found CIEFA, the Comprehensive Education Improvement and Financing Act, unconstitutional because it failed to add funding and improve the quality of education at the target school districts as instructed by previous Abbott

rulings (Education Law Center). The Supreme Court of New Jersey took additional measures in this case which resulted in an immediate increase in state aid of $246 million (Education Law Center). In 1998, the ruling in Abbott V "accepted many of the supplemental programs and reforms, and a plan to fund capital facilities improvements" (Education Law Center). In the ruling, the Court established a process through which urban districts could request additional funding for specified purposes such as supplemental programs, granted that the districts could demonstrate sufficient need (Education Law Center). While the Abbott rulings were limited to a set of urban and low-income school districts, the School Funding Reform Act (SFRA) of 2008 impacted school funding statewide (Education Law Center).

SFRA mandated that school funding be based on a formula that "delivers state and local funding driven by a "base cost," or the per pupil amount necessary to support the core curriculum program of every student regardless of need" (Education Law Center). SFRA also aimed to deliver extra funding to schools with at-risk students, limited-English proficient students, and students with disabilities (Education Law Center). In 2010, the New Jersey Supreme Court ruled in the Abbott XXI ruling that the State had violated the ruling in Abbott XX. As a result, the Court ordered the State to fully fund the formula stated in SFRA for the 31 target districts from previous Abbott rulings (Education Law Center). New Jersey has witnessed a complicated legislative history regarding equalizing education funding. However, some policy experts have applauded New Jersey's targeted funding policies from the Abbott rulings. The Education Law Center reports "Due in part to the target funding and programs, New Jersey leads the nation in high school graduation rates, and graduates 74% of its Black male students, the highest rate among states with a significant number of Black students...Test score gaps have narrowed… The NAEP (National Assessment of Educational Progress) scores confirm this

narrowing of the gap, due in large measure to the better resources from the funding reforms" (Hunter, 2010). The hope of the education funding reforms in New Jersey, as well as those in other states, is that students, especially low-income and at-risk students, will receive better education and graduate. However, we wonder if and to what extent these reforms have had an impact on dropout in the Abbott districts. While there has been extensive studies conducted regarding the impact of the Abbott rulings on test score and academic performance, the Abbott laws have not been thoroughly studied in the context of dropout trends in New Jersey schools.

Dropout is a critical issue for schools across the nation, especially in schools in lower socioeconomic neighborhoods. Dropout has considerable direct and indirect economic and societal consequences, such as unemployment and crime. While the Abbott rulings did not specifically aim to reduce dropout in the designated Abbott schools, reducing dropout can be understood to be an integral component of the discussion around improving education and providing a constitutional level of education to all students in New Jersey. Dropout and unconstitutional qualities of education are undeniably linked. Poor education quality and lack of resources at school can heavily impact dropout trends in schools. A study by Doll et al. (2013) discusses factors that motivate dropout and states that there is "a third factor called falling out of school, which occurs when a student does not show significant academic progress in schoolwork and becomes apathetic or even disillusioned with school completion. It is not necessarily an active decision, but rather a 'side-effect of insufficient personal and educational support' " (Doll et al., 2013). Any laws, such as the Abbott rulings, which intend to improve education quality, may thus inevitably have an impact on dropout. This project aims to study that relationship. This paper discusses the effect of a 2005 ruling regarding the Abbot laws on dropout trends in the Abbott districts.

In 2005, Judge Neil Schuster made a ruling to hold the State of New Jersey Department of Education accountable for the Abbott rulings and ordered the Department of Education "to prepare a plan to mange implementation of the Abbott reforms for the years 2006 and 2007" (Abbotts - History of Funding Equity). This paper studies the effect of this ruling in the context of dropout trends in school districts across New Jersey. In particular, I study the effect of the ruling on dropout trends in the Abbott districts during the 2006-2007 school year and during the 2007-2008 school year. I also study the effect of the ruling on dropout trends amongst Black male students, Black female students, White male students, and White female students during this time period. It is useful to study the impact of education funding laws on dropout as such a study will strengthen our understanding of the relationship between education funding and dropout, and therefore better inform policy decisions.

The relationship between education funding and dropout can be understood in economic terms. Education funding is a substantial investment made by governments. It is important to think critically about these investments so that the investments yield the greatest returns. Additionally, the issue of dropout presents a considerable economic cost. The National Dropout Prevention Center reports, "U.S. companies lose nearly $40 billion annually because of illiteracy" (Economic Impacts of Dropouts). Furthermore, dropout has large economic costs by way of crime, teen pregnancy, personal income, and unemployment (Economic Impacts of Dropouts). Thus, it is in our economic interests to reduce dropout. Education funding is an investment that can be made to reduce dropout and thus the economic costs of dropout. The New York Times reports "If we could reduce the current number of dropouts by just half, we would yield almost 700,000 new graduates a year, and it would more than pay for itself" (Levin & Rouse, 2012). If education funding, especially equitable education funding, has the possibility

of reducing dropout and the economic costs of dropout, we must study education-funding laws through an economic lens. In doing so, we can precisely determine the effect these laws are having on school outcomes. If these laws are not yielding a positive effect, it might be necessary to reconsider these laws so that education-funding laws can be structured to be more effective in improving and bettering education.

This study utilizes data from the State of New Jersey Department of Education. I use panel data that includes data for variables such as enrollment, crime incidence, and free lunch enrollment from multiple school districts in New Jersey from the years 2003 to 2008. I also utilize the District Factor Group designations, a socioeconomic indicator, from the State of New Jersey Department of Education in my panel data. This collection of race, crime, and socioeconomic data is the foundation for the results I find in this study.

I find that the first year of implementation of the 2005 ruling had a statistically significant effect on total dropout in Abbott districts. However, the second year of implementation of the 2005 ruling did not have a statistically significant impact on total dropout in the Abbott districts. Furthermore, while the first year of implementation of the 2005 ruling had a statistically significant impact on Black male dropout and Black female dropout in Abbott districts, neither the first year nor the second year of implementation of the ruling had a statistically significant impact on White male and White female dropout in Abbott districts. The dropout issue is complex and multiple factors, measurable and immeasurable, influence dropout. Though this study has found an underlying statistically significant relationship between the 2005 rulings and dropout, I cannot yet infer causality from the results of this study. Nonetheless, the results provide interesting evidence in the debates surrounding education-funding laws that continue not only in New Jersey, but also across the United States.

II: Literature Review

Education Funding & Education Funding Reform

Education funding is a topic of great interest for policymakers and legislators. Both economists and law experts have weighed in on the topic. From a legal perspective, Erwin Chemerinsky found that as long as schools for at-risk youth are seen as a "welfare programs", school funding will never be equalized (Chemerinsky, 2003). In addition to experts in law, policy experts and economists have analyzed education funding structures and education funding reform laws in detail. Moser & Rubenstein (2002) found that "States with fewer school districts relative to students tended to have a more equal distribution of education dollars than states with more districts" (Moser & Rubenstein, 2002). A report produced by the Education Law Center found that the Recession and the economic downturn impacted states' ability to create "fairer" distributions of funding for their school districts (Baker et al., 2014). The Education Law Center defined "fair" school funding as "a state finance system that ensures equal educational opportunity by providing a sufficient level of funding distributed to districts within the state to account for additional needs generated by student poverty" (Baker et al., 2014). The Education Law Center reports "New Jersey, previously one of the fairest states, now falls $2,619 below its funding level in 2007" (Baker et al., 2014). However, the Education Law Center still found that New Jersey was progressive in the mission to make a fairer education funding distribution across school districts (Baker et al., 2014).

Economists have also studied the topic of education funding. Augenblick et al. (1997) discusses the econometric approach to education funding, which uses econometric tools to "explain how funds, in terms of magnitude and spending patterns, influence performance while controlling for the impact of factors such as socioeconomic characteristics of the pupils

(Augenblick et al., 1997). (1997) discusses some possible concerns about the econometric approach and states that "some analysts argue that such analysis is theoretically impossible because there is no direct or reliable relationship between resource inputs and student outcomes; too many noninput factors… intervene between the input and output stage for student outcomes to be reliably predicted based on resource levels" (Augenblick et al., 1997). While Augenblick et al. (1997) mentions some relevant considerations and possible obstacles in the empirical study of school performance and education funding, Berne & Stiefel (1999) provides some counterarguments to these claims. Berne & Stiefel (1999) states "Twenty years ago, most researchers could access cross-section, district-level data, with very imperfectly measured inputs. Currently… student-level data allow researchers interested in production functions to refine their approaches… Whatever the direction of causality, it seems true that measures of school finance equity are intimately intertwined with the data that can be accessed by analysts" (Berne & Stiefel, 1999). Furthermore, Berne & Stiefel (1999) argued that there is an incentive to study the use of resources since there already exists research that has confirmed that in certain instances resources affect student and school outcomes. Additionally, there is a large body of literature on the topic of school resources and outcomes that in conjunction with previous research can be interpreted to prove that the use of resources can affect school and student outcomes (Berne & Stiefel, 1999). Thus, while the empirical study of school finance and school outcomes is complicated, there is an incentive and a need to study the relationship.

Causes of Dropout

The trend of students dropping out of school and not graduating presents a major problem to school districts across the nation, especially school districts with a large population of at-risk youth. Delbert & Harwin (1974) identified a theoretical framework to explain dropout and

delinquency. The variables that may cause students to dropout are aspiration-opportunity disjunction, internal-external attribution of blame, alienation or normlessness, and access and exposure to delinquent groups (Delbert & Harwin, 1974). Another study identified factors that may cause students to drop out such as educational aspirations, student engagement, gender, race, ethnicity, immigration status, language background, low educational and occupational aspiration, and teenage parenthood (Rumberger, 2011). A large study conducted by Doll et al. identified other factors that motivate the decision to drop out such as marriage, lack of interest in school, financial difficulties at home, poor health, pregnancy, poor academic performance, family obligations, and beyond (Doll et al., 2013). Understanding the causes of dropout help direct and inform our empirical analysis of the relationship between school funding reforms and dropout rates.

III: Data and Empirical Analysis

This study utilizes data collected and archived by the State of New Jersey Department of Education. The panel data consists of data from the school years 2003-2004, 2004-2005, 2005-2006, 2006-2007, and 2007-2008. The data is school district level data, meaning each school district has data observations for all of the variables of interest for all years in the selected time period. While data for more than 241 school districts were collected, the data from only 233 school districts were utilized in the empirical analysis. This is due to the fact that complete data for all five years was recorded for only 233 school districts. Furthermore, while there are 31 Abbott districts, only 27 Abbott districts were included in the empirical study because complete data was collected for only 27 of the Abbott districts.

A: Outcome Variables

The outcome variables are dropout numbers. Dropout counts for different groups were included in the panel data. A "dropout count" represents the number of individuals of a particular group who chose to leave school before earning a high school diploma. Dropout counts for White male dropout, White female dropout, Black male dropout, Black female dropout, Hispanic male dropout, Hispanic female dropout, Native American male dropout, Native American female dropout, Asian male dropout, Asian female dropout, and total dropout (i.e. the total number of individuals who dropped out of a school district) are considered to be outcome variables and are included in the data used for this study. However, in this paper, I discuss only the results concerning the outcome variables of total dropout, Black male dropout, Black female dropout, White male dropout, and White female dropout.

B: Main Independent Variable: 2005 Abbott Ruling

The 2005 Abbott ruling is the key independent variable in question in this study. The ruling was represented as the variables Zero Years Under Law, One Year Under Law, and Two Years Under Law. Zero Years Under Law indicates that the ruling was either not yet in effect or never intended to be in effect for that school district. One Year Under Law indicates that the ruling was in effect for one year at that school district. All the Abbott districts were "One Year Under the Law" during the 2006-2007 school year. Two Years Under the Law indicates that the ruling was in effect for two years at that school district. All the Abbott districts were "Two Years Under the Law" during the 2007-2008 school year. Thus, Zero Years Under Law, One Year Under Law, and Two Years Under Law variables allow me to account for the 2005 Abbott ruling in the model.

C: Other Explanatory Variables

The panel data includes a number of other explanatory variables. The choice of explanatory variables is based on literature regarding motivating factors behind the decision to drop out. Literature indicates that a number of factors motivate the decision to drop out. Doll et al. (2013) listed factors such as marriage, lack of interest in school, financial difficulties at home, poor health, pregnancy, poor academic performance, family obligations, and beyond (Doll et al., 2013). I do not include any explanatory variables that could be related to dropout and also be influenced by education funding. This is due to the fact that controlling for these variables would not allow us to fully realize the effect of the education-funding ruling on dropout. For example, pregnancy incidence is not controlled for in the model. This is due to the fact that changes in education funding laws may allow schools to direct more or less money to teen pregnancy prevention programs, thus reducing or increasing the incidence of pregnancy, and thereby reducing or increasing the rate of dropout. If I control for pregnancy incidence in the model, the effect education funding has on dropout through this mechanism is eliminated from the model. Thus, in order to ensure that I arrive at the truest values for the impact of the 2005 ruling on dropout, I do not control for explanatory variables such as pregnancy and student-to-teacher ratio.

An important explanatory variable is the District Factor Group designations for each school district. The District Factor Group is an indicator used by the State of New Jersey that places school districts in categories based on six variables: percent of adults with no high school diploma, percent of adults with some college education, occupational status, unemployment rate, percent of individuals in poverty, and median family income (State of New Jersey). The District Factor Group information used in this study is based on data from the 2000 Census (State of

New Jersey). Essentially, the District Factor Group variable provides a relatively robust measure of socioeconomic background. Furthermore, the District Factor Group variable functions in some way as an instrumental variable for factors such as parental ability to support a child's education and family obligation. For example, parents without high school diplomas may not have the educational background to help their children with homework or test preparation. Students who lack help or support from their parents regarding their educational needs may feel more burdened by school, and therefore be more likely to drop out. Additionally, students with unemployed parents may feel more obligated to work and earn income at an early age and therefore drop out of school. Thus, the District Factor Group provides a powerful explanatory variable for our study.

Other explanatory variables include enrollment counts for various racial groups, violence incidence, weapons crime incidence, substances crime incidence, free lunch enrollment, and reduced price lunch enrollment. Enrollment counts for various racial groups were included in the model in order to control for the racial composition of the school districts over time. Additionally, multiple variables concerning crime were included in the model rather than one variable that accounted for total crime. This is due to the idea that different types of crime may impact students and dropout differently. Thus, by differentiating amongst the types of crime in my model, I account for this possibility and position myself to yield more refined results. It is important to note that free lunch enrollment and reduced price enrollment numbers are both included as explanatory variables, in addition to District Factor Groups, in order to ensure that comprehensive and stratified measures of socioeconomic status are present in the model. By including such measures, I am able to ensure that I am effectively controlling for socioeconomic status related factors in the model.

D: Summary Statistics

A set of summary statistics is presented in Table 1. Table 1 includes the mean and standard deviation values for the outcome and explanatory variables. I would like to make note of some particular statistics and patterns from Table 1. Firstly, it seems that for many of the groups of students, dropout did not consistently increase or decrease in the 5-year period. For example, Black male dropouts decreased from the 2003-2004 school year but increased in the 2007-2008 school year. Secondly, none of the groups of students consistently had the highest or lowest dropout numbers for the entirety of the 5-year period. The variation in the dropout data indicates the need for a more complex model to study the dropout trends, because simply looking at increases, decreases, maximums, and minimums does not provide any cohesive understanding of the data across the 5-year period. This indication strengthens the argument for the need for robust economic analyses of school outcomes and education-funding laws.

E: Empirical Analysis

The nature of the data implies a need for either a fixed effects model or a random effects model. This is due to the fact that the data is in the form of panel data. While a pooled ordinary least squares (OLS) model may also be utilized for panel data, a pooled OLS requires the assumption that there are no unique variable characteristics of the entities in the data set. School districts do have unique characteristics that vary and therefore, I cannot use a pooled OLS for the panel data in this study. Thus, instead, I consider only a fixed effect model and a random effects model.

Fixed Effects Model

I consider a fixed effects model in this study, which is represented by the equation:

$$Dropout_{it} = \beta_1(OneYearUnderLaw_{1,it}) + \beta_2(TwoYearsUnderLaw_{2,it}) + \beta_3 X_{3,it} + \alpha_{it} + u_{it}$$

where $Dropout_{it}$ represents one of the dependent variables in question, as described in Section 3A, $OneYearUnderLaw_{it}$ and $TwoYearsUnderLaw_{it}$ represent the independent variables in question, $X_{3,it}$ represents a vector of explanatory variables utilized as control variables, α_{it} represents the unknown intercept for each entity, and u_{it} represents the error term. $OneYearUnderLaw_{1,it}$ and $TwoYearsUnderLaw_{2,it}$ are dummy variables. While fixed effects is useful to this study due to the nature of the data, it is important to note that fixed effects may not be a flawless model for this study. This is mostly due to the fact that fixed effects models are not the best choice for variables that change slowly over time. Dropout can be considered a slowly changing variable and therefore, there are some limitations with the use of a fixed effects model in this study. Despite this limitation, we find that a fixed effects model is still a superior choice to a random effects model for this particular study.

Random Effects Model

I also consider a random effects model for this study, which is represented by the equation:

$$Dropout_{it} = \beta_1(ZeroYearsUnderLaw_{1,it}) + \beta_2(OneYearUnderLaw_{2,it}) + \beta_3(TwoYearsUnderLaw_{3,it}) + \beta_4 X_{4,it} + \alpha + u_{it} + \varepsilon_{it}$$

where $Dropout_{it}$ represents one of the dependent variables in question, as described in Section 3A, $ZeroYearsUnderLaw_{1,it}$, $OneYearUnderLaw_{2,it}$, and $TwoYearsUnderLaw_{3,it}$ represent the independent variables in question, $X_{4,it}$ represents a vector of explanatory variables utilized

as control variables, α represents the unknown intercept, u_{it} represents between-entity error, and ε_{it} represents the within-entity error. $ZeroYearsUnderLaw_{1,it}$, $OneYearUnderLaw_{2,it}$, and $TwoYearsUnderLaw_{3,it}$ are dummy variables. Random effects models rely on the assumption that any unique characteristic variation among entities is uncorrelated with the independent variable. Upon first analysis, we cannot necessarily determine if this assumption holds true for the school districts being studied in this paper. Therefore, in order to precisely determine whether a random effects model should be utilized in this study, we must employ statistical methods. I consider a random effects model and test it against the fixed effects model to determine which model is preferred to study the data at hand.

Durbin-Wu-Hausman Test

In order to compare the fixed effects model and the random effects model, I use the Durbin-Wu-Hausman test. In the Durbin-Wu-Hausman test, the null hypothesis stands that the random effects model is preferred. The Hausman test is described as testing "whether the unique errors are correlated with the regressors, the null hypothesis is they are not" (Torres-Reyna, 2007). After running a Hausman test on the fixed effects model and random effects model described previously, I find that the fixed effects model is preferred to the random effects model. Thus, I am able to confidently utilize the fixed effects model over the random effects model in this study.

E: Limitations

It is important to note some limitations in this study. Firstly, while the fixed effects model provides a powerful tool to observe the effect of the 2005 ruling on dropout, despite any existing heterogeneity amongst the school districts, we cannot be sure that we have thoroughly controlled for factors that do not belong as a part of the heterogeneity. For example, while religious

composition at a school district is often assumed to be part of heterogeneity, especially in the short timespans, this assumption cannot necessarily be verified for all the school districts. It could be possible that there was a large and sudden shift in the religious composition of a school district due to an unspecified event. If religion affects dropout, which it certainly has the capability to do, we must control for this change in religious composition. The limitation arises from the fact that the data in question and the models at hand do not allow us to determine if certain factors such as religion and culture are aspects of heterogeneity or need to be designated as control variables. Further research and more data may help remediate the issues surrounding this limitation. For instance, survey data from each school district regarding aspects such as religion and culture may help inform our decision to control for certain factors or allow these factors to exist as part of the heterogeneity in a fixed effects model.

Secondly, some limitations arise from the legal history of education funding in New Jersey. The legal history of education funding in New Jersey is long and complex. In many instances, multiple laws and rulings were enacted within a very short time period. For example, in May 2000, in Abbott VII, the State of New Jersey was ordered to fund facilities improvement and construction (Abbott Decisions). The Abbott VII order came just two years after the Abbott V ruling, which ordered Abbott programs and reforms (Abbott Decisions). The fact that these rulings were made just two years apart complicates the empirical analysis of the impact of these laws. Not only this, but the effect of a law may be realized many years after it was enacted or the law may only have a tangible impact the first year after it is enacted. As we see, it is difficult to determine where the impact of one of the laws ends and the impact of the other law begins. Thus, due to the fact that many of the Abbott related rulings are entangled within one another, it is difficult to make the clear distinctions necessary for empirical analysis. While the empirical

analysis of the Abbott rulings may be limited, we can gain a more complete understanding of the impact of an Abbott ruling on school outcomes through other types of economic analysis. The empirical analysis of the Abbott rulings, like the one presented in this paper, can be supplemented with behavioral economics studies and mathematical models. The knowledge gleaned individually from multiple studies and many different types of study can, as a whole, create a more comprehensive understanding of the impact of an Abbott ruling on an outcome variable. This is due to the fact that each type of economic analysis has strengths and requires different assumptions. Therefore, multiple economic analyses can allow us to glean different types of knowledge about the Abbott rulings. A combination of all this knowledge will create a more complete understanding of the impact of Abbott rulings on school outcomes.

IV: Results

The fixed effects analysis and random effects analysis for the total dropout is recorded in Table 2. The complete results for the fixed effects analysis and random effects analysis are recorded in Appendix table A1. The results for both models are shown in Table 2 for comparison. However, as discussed previously, the fixed effects model is considered to be a better fit for the data. In the fixed effects model, the variable One Year Under the Law has a statistically significant effect of -19.62 students on total dropout. However, the variable Two Years Under the Law does not have a statistically significant effect on Total Dropout. In the random effects model, Zero Years Under the Law, One Year Under the Law, and Two Years Under the Law do not have statistically significant effects on Total Dropout. Interpreting the results of the fixed effects model, we can infer that one year of implementation of the 2005 Abbott ruling resulted in a negative effect on total dropout.

Table 3 shows the fixed effects results for Black male dropout and White male dropout. The complete results for the fixed effects analysis are recorded in Appendix table A2. The random effects model is not employed with the Black male dropout and White male dropout outcome variables because the fixed effects model is established to be superior for this study. One Year Under the Law and Two Years Under the Law both have statistically significant negative effects on Black male dropout, and do not have statistically significant effects on White male dropout. It is important to note the R^2 values listed in Table 3. The R^2 values listed in this table are within-R^2 values. When discussing fixed effects models, within-R^2 values are utilized to measure goodness of fit. As given in Table 3, the within-R^2 for the model for Black male dropout is much larger than the within-R^2 for the model for White male dropout.

The results for the fixed effects analysis for Black male dropout and Black female dropout are recorded in Table 4. The complete results are recorded in Appendix table A3. While one year of implementation of the 2005 ruling had a significant negative effect on both Black male dropout and Black female dropout, two years of implementation of the 2005 ruling had a significant effect on only Black male dropout. Table 4 also shows that one year of implementation of the 2005 ruling had a greater effect on Black female dropout than on Black male dropout.

In Table 5, the fixed effects results for White male dropout and White female dropout are compared. The complete results are recorded in Appendix table A4. Table 5 indicates that the 2005 Abbott ruling had no significant effect on White male dropout and White female dropout. Similar to the case with Black male dropout and White male dropout, it can be noted that the within-R^2 value for the fixed effects model for White female dropout is significantly smaller than the within-R^2 value for the Black female dropout model.

V: Discussion

The results indicate that the 2005 Abbott ruling had varied effects on dropout trends. The 2005 Abbott ruling had a significant negative effects on total dropout incidence, Black male dropout incidence, and Black female dropout incidence. However, the 2005 Abbott ruling did not have significant effects on White male dropout incidence and White female dropout incidence. Furthermore, the 2005 Abbott ruling had a larger significant negative effect on Black female dropout in the first year than on Black male dropout. These results allow us to conclude that the effect of the 2005 Abbott ruling, either in the first year or the second year of implementation, was influenced by gender. While we cannot yet be certain that race also influences the effect of the 2005 Abbott ruling on dropout incidence, we can engage in further analysis to study this idea. Thus, it may be understood that education-funding laws may not uniformly affect all students, despite the fact that they may not necessarily intend to do so. From our results, not only do we acquire the knowledge that factors such as gender impacted the effect of the 2005 Abbott ruling on dropout, but also that the effect of the ruling was not consistent over the two years of implementation.

The results of this study indicate that while the first year of the 2005 Abbott ruling had a statistically significant effect on total dropout, the second year of the ruling did not have a statistically significant effect on total dropout. It may be useful to understand why only one year of implementation of the 2005 Abbott ruling had a significant effect on total dropout through further research, as such knowledge will inform future structures of laws and rulings. For example, if through further research it is discovered that the structure of the 2005 ruling results in diminishing returns, then lawmakers may account for the possibility of diminishing returns

when designing future laws. Another key piece of information from the results concerns differences in within-R^2 values for different groups of students.

A higher within-R^2 for the fixed effects model for Black male dropout compared to the within-R^2 value for the fixed effects model for White male dropout may indicate that the model in this study may better explain Black male dropout than White male dropout. After further analysis, if it is deemed to be true that the model in this paper is a better fit for Black male dropout than White male dropout, then it is necessary that a different model be designed that effectively explains both Black male dropout and White male dropout. A model that better fits all the data will allow for more accurate and statistically sound results regarding the effect of the 2005 Abbott ruling on dropout in the Abbott school districts.

While the results in this paper have been discussed in terms of "effects," it is important to note that the results from this paper do not imply causality. There are limitations to this study and to this model, as described previously, that limit the ability to infer any true causal relationships between changes in dropout trends and the 2005 Abbott ruling. However, the results provide evidence of general patterns between changes in dropout trends and the 2005 Abbott ruling. This evidence is still useful in policy discussion and can provide a foundation for further research.

VI: Conclusion

Education inequity is a pervasive problem in the United States, and disparities in education funding contribute notably to education inequity. The traditional structure of education funding laws relies heavily on property values within the school districts. However, due to the fact that property values are not uniform across all school districts, school districts in "poorer" areas have and continue to experience a lack of resources and opportunities. New Jersey has been attempting to rectify this issue, mostly in the form of the Abbott district related laws and rulings.

This paper's study of the effect of a particular ruling in 2005 on dropout trends in the Abbott districts yields mixed results. While some statistically significant effects of the 2005 Abbott ruling are observed, further research is required to strengthen the model and acquire statistically stronger results. Further research may require more data, different types of data, different types of models, and different types of analysis. However, it remains important to study the effect of education-funding laws on dropout trends. Education funding is a substantial investment and dropout is an issue of great economic and societal importance. It is crucial that we study the relationship between education-funding laws and dropout so that we can ensure that education-funding decisions made by governments are informed, effective, and beneficial.

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Table 1: Sample Means and Standard Deviations of All Variables by Year

	2003-2004 (N=241)	2004-2005 (N=234)	2005-2006 (N=236)	2006-2007 (N=233)	2007-2008 (N=233)
Outcomes					
White Male Dropout	6.82 (8.64)	6.76 (10.89)	7.55 (19.77)	6.44 (9.23)	5.93 (8.06)
White Female Dropout	4.87 (7.05)	5 (7.75)	5.28 (14.16)	4.41 (7.46)	3.9 (5.41)
Black Male Dropout	8.02 (31.98)	6.26 (22.59)	6.67 (24.92)	5.91 (21.37)	6.14 (22.96)
Black Female Dropout	6.2 (27.69)	5.09 (20.08)	4.95 (20.09)	4.27 (15.95)	4.78 (18.43)
Hispanic Male Dropout	7.11 (25.9)	6.49 (18.4)	5.86 (18.36)	6.14 (19.62)	6.52 (21.43)
Hispanic Female Dropout	5.22 (19.71)	4.69 (14.77)	4.34 (14.58)	4.6 (15.96)	4.66 (14.78)
Native American Male Dropout	0.14 (0.73)	0.59 (1.99)	0.08 (0.45)	0.06 (0.35)	0.06 (0.3)
Native American Female Dropout	0.06 (0.4)	0.29 (0.89)	0.02 (0.14)	0.04 (0.22)	0.02 (0.17)
Asian Male Dropout	0.65 (2.17)	0.1 (0.61)	0.6 (2.16)	0.51 (1.83)	0.47 (1.28)
Asian Female Dropout	0.27 (1.11)	0.07 (0.36)	0.45 (1.61)	0.32 (1.26)	0.24 (0.79)
Total Dropout	39.36 (98.72)	35.33 (71.91)	35.81 (83.35)	32.7 (74.03)	32.72 (73.95)
Causes of Dropout					
Violence	39.42 (52.16)	35.28 (40.69)	33.74 (43.53)	36.19 (44.55)	34.24 (38.43)
Vandalism	12.2 (18.14)	11.03 (14.23)	11.86 (16.23)	10.95 (13.04)	9.61 (11.25)
Weapons	5.2 (9.93)	4.88 (8.13)	4.5 (7.35)	4.47 (7.42)	3.67 (6.6)
Substances	9.1 (12.35)	9.83 (13.72)	9.24 (12.18)	9.65 (11.71)	9.81 (13.92)
Total Crime	64.93 (76.88)	60.27 (62.83)	58.6 (66.17)	60.51 (63.51)	56.57 (57.03)
White Male Enrollment	1114.07 (1027.68)	1084.94 (1038.42)	1102.89 (1029.98)	1095.13 (1003.97)	1051.77 (980.46)
White Female Enrollment	1054.41 (972.23)	1022.05 (985.96)	1039.8 (975.43)	1036.56 (954.97)	996.15 (929.29)
Black Male Enrollment	422.76 (1168.63)	430.72 (1157.36)	405.72 (1118.61)	412.85 (1100.44)	391.22 (1048.67)
Black Female Enrollment	412.7 (1140.7)	419.09 (1138.27)	394.3 (1093.96)	400.47 (1075.81)	377.28 (1020)
Hispanic Male Enrollment	437.04 (1079.7)	460.01 (1103.38)	463.22 (1098.14)	477.68 (1107.45)	484 (1104.16)
Hispanic Female Enrollment	413.37 (1026.85)	435.22 (1052.85)	436.84 (1045.67)	451.96 (1056.56)	453.48 (1045.92)
Native American Male Enrollment	3.94 (13.94)	4.62 (16.18)	4.24 (15.14)	3.85 (13.04)	3.62 (12.69)
Native American Female Enrollment	3.64 (12.75)	3.53 (11.22)	3.56 (12.38)	3.86 (12.59)	3.39 (11.11)
Asian Male Enrollment	161.68 (319.93)	164.47 (339.96)	162.85 (333.41)	179.35 (370.49)	182.08 (379.84)
Asian Female Enrollment	151.1 (300.13)	153.57 (320.58)	152.31 (313.33)	168.53 (350.65)	171.76 (357.64)
Total Enrollment	4174.71 (4639.18)	4178.23 (4684.22)	4165.72 (4601.34)	4230.24 (4549.26)	4114.75 (4473.01)
Free Lunch Enrollment	1004.54 (2693.53)	1060.86 (2789.8)	1032.86 (2509.5)	1061.74 (2768.71)	1056.59 (2711.94)
Reduced Price Enrollment	282.51 (486.17)	289.72 (498.58)	251.23 (372.74)	261.34 (437.77)	263.8 (447.69)

Table 2: Fixed Effects and Random Effects Analysis for Total Dropout

	Dependent variable:	
	TOTAL DROPOUT	
	(Fixed Effects)	(Random Effects)
One Year Under the Law	-19.62^{**}	-8.246
	(8.822)	(7.928)
Two Years Under the Law	-14.212	1.466
	(9.165)	(2.245)
Zero Years Under the Law		0.671
		(7.556)
Other Regressors		
Violence	0.096^{**}	0.179^{***}
	(0.043)	(0.048)
Weapons	0.608^{*}	0.541^{*}
	(0.314)	(0.305)
Substances	0.323^{**}	0.346^{**}
	(0.131)	(0.148)
White Male Enrollment	-0.0002	0.021
	(0.020)	(0.024)
White Female Enrollment	0.007	-0.019
	(0.021)	(0.025)
Black Male Enrollment	-0.279^{***}	-0.104^{***}
	(0.031)	(0.038)
Black Female Enrollment	0.292^{***}	0.114^{***}
	(0.032)	(0.039)
Free Lunch Enrollment	0.018^{***}	0.012^{***}
	(0.003)	(0.003)
Reduced Price Lunch Enrollment	0.016^{*}	0.036^{***}
	(0.009)	(0.010)
Observations	1,177	1,177
R^2	0.751	0.585
Adjusted R^2	0.744	0.576
F Statistic	138.154^{***} (df = 25; 1147)	62.445^{***} (df = 26; 1150)
Note:		*p<0.1; **p<0.05; ***p<0.01

Table 3: Fixed Effects Analysis for Black Male Dropout and White Male Dropout

	Dependent variable:	
	Black Male Dropout (Fixed Effects)	White Male Dropout (Fixed Effects)
One Year Under the Law	-6.603^{***}	-0.578
	(2.499)	(2.070)
Two Years Under the Law	-4.816^{*}	-1.841
	(2.596)	(2.151)
Other Regressors		
Violence	0.012	0.021^{**}
	(0.012)	(0.010)
Weapons	-0.049	0.195^{***}
	(0.089)	(0.074)
Substances	-0.033	0.119^{***}
	(0.037)	(0.031)
White Male Enrollment	0.002	-0.014^{***}
	(0.006)	(0.005)
White Female Enrollment	-0.003	0.021^{***}
	(0.006)	(0.005)
Black Male Enrollment	-0.088^{***}	-0.012^{*}
	(0.009)	(0.007)
Black Female Enrollment	0.098^{***}	0.010
	(0.009)	(0.008)
Free Lunch Enrollment	0.008^{***}	0.001
	(0.001)	(0.001)
Reduced Price Lunch Enrollment	0.008^{***}	0.002
	(0.002)	(0.002)
Observations	1,177	1,177
R^2	0.791	0.385
Adjusted R^2	0.786	0.369
F Statistic (df = 25; 1147)	173.670^{***}	28.699^{***}
Note:		*p<0.1; **p<0.05; ***p<0.01

Table 4: Fixed Effects Analysis for Black Male Dropout and Black Female Dropout

	Dependent variable:	
	Black Male Dropout	Black Female Dropout
	(1)	(2)
One Year Under the Law	−6.603***	−7.020***
	(2.499)	(2.332)
Two Years Under the Law	−4.816*	−3.408
	(2.596)	(2.422)
Other Regressors		
Violence	0.012	−0.002
	(0.012)	(0.011)
Weapons	−0.049	−0.001
	(0.089)	(0.083)
Substances	−0.033	−0.038
	(0.037)	(0.035)
White Male Enrollment	0.002	0.001
	(0.006)	(0.005)
White Female Enrollment	−0.003	−0.001
	(0.006)	(0.006)
Black Male Enrollment	−0.088***	−0.083***
	(0.009)	(0.008)
Black Female Enrollment	0.098***	0.092***
	(0.009)	(0.008)
Free Lunch Enrollment	0.008***	0.006***
	(0.001)	(0.001)
Reduced Price Lunch Enrollment	0.008***	0.007***
	(0.002)	(0.002)
Observations	1,177	1,177
R^2	0.791	0.737
Adjusted R^2	0.786	0.730
F Statistic (df = 25; 1147)	173.670***	128.474***
Note:		*p<0.1; **p<0.05; ***p<0.01

Table 5: Fixed Effects Analysis for White Male Dropout and White Female Dropout

	Dependent variable:	
	White Male Dropout	White Female Dropout
	(1)	(2)
One Year Under the Law	−0.578	0.485
	(2.070)	(1.516)
Two Years Under the Law	−1.841	−2.135
	(2.151)	(1.575)
Other Regressors		
Violence	0.021**	0.018**
	(0.010)	(0.007)
Weapons	0.195***	0.161***
	(0.074)	(0.054)
Substances	0.119***	0.060***
	(0.031)	(0.022)
White Male Enrollment	−0.014***	−0.015***
	(0.005)	(0.003)
White Female Enrollment	0.021***	0.021***
	(0.005)	(0.004)
Black Male Enrollment	−0.012*	−0.009*
	(0.007)	(0.005)
Black Female Enrollment	0.010	0.007
	(0.008)	(0.006)
Free Lunch Enrollment	0.001	0.001
	(0.001)	(0.0005)
Reduced Price Lunch Enrollment	0.002	0.0003
	(0.002)	(0.002)
Observations	1,177	1,177
R^2	0.385	0.387
Adjusted R^2	0.369	0.372
F Statistic (df = 25; 1147)	28.699***	29.002***
Note:		*p<0.1; **p<0.05; ***p<0.01

Appendix Table A1: Complete Results for Fixed Effects and Random Effects Analysis for Total Dropout

	Dependent variable:	
	TOTAL DROPOUT	
	(1)	(2)
One Year Under the Law	−19.62**	−8.246
	(8.822)	(7.928)
Two Years Under the Law	−14.212	1.466
	(9.165)	(2.245)
Zero Years Under the Law		0.671
		(7.556)
Other Regressors		
Violence	0.137***	0.179***
	(0.041)	(0.048)
Vandalism	−0.116	0.127
	(0.112)	(0.119)
Weapons	0.647**	0.541*
	(0.315)	(0.305)
Substances	0.326**	0.346**
	(0.129)	(0.148)
White Male Enrollment	−0.001	0.021
	(0.020)	(0.024)
White Female Enrollment	0.005	−0.019
	(0.021)	(0.025)
Black Male Enrollment	−0.272***	−0.104***
	(0.031)	(0.038)
Black Female Enrollment	0.281***	0.114***
	(0.032)	(0.039)
Hispanic Male Enrollment	−0.076***	−0.132***
	(0.029)	(0.035)

Hispanic Female Enrollment	0.072**	0.140***
	(0.031)	(0.037)
Native American Male Enrollment	−1.106***	−0.820***
	(0.277)	(0.261)
Native American Female Enrollment	1.901***	1.415***
	(0.318)	(0.311)
Asian Male Enrollment	−0.012	−0.044
	(0.060)	(0.066)
Asian Female Enrollment	0.004	0.040
	(0.063)	(0.070)
Free Lunch Enrollment	0.019***	0.012***
	(0.003)	(0.003)
Reduced Price Lunch Enrollment	0.027***	0.036***
	(0.008)	(0.010)
District Factor Code: GB	−9.248	−7.953
	(5.811)	(8.196)
District Factor Code: CD	−3.712	−4.267
	(6.364)	(8.743)
District Factor Code: DE	−7.857	−5.510
	(6.037)	(8.340)
District Factor Code: FG	−13.080**	−8.799
	(6.245)	(8.584)
District Factor Code: GH	−21.136***	−15.713*
	(6.478)	(8.907)
District Factor Code: I	−19.418***	−12.389
	(6.730)	(9.106)
District Factor Code: J	−17.371*	−8.394
	(8.973)	(12.158)
Constant		0.671
		(7.556)
Observations	1,177	1,177

R^2	0.746	0.585
Adjusted R^2	0.742	0.576
F Statistic	188.669*** (df = 18; 1154)	62.445*** (df = 26; 1150)
Note:		*p<0.1; **p<0.05; ***p<0.01

Appendix Table A2: Complete Results for Fixed Effects Analysis for Black Male Dropout and White Male Dropout

	Dependent variable:	
	Black Male Dropout	White Male Dropout
	(1)	(2)
One Year Under the Law	-6.603^{***}	-0.578
	(2.499)	(2.070)
Two Years Under the Law	-4.816^{*}	-1.841
	(2.596)	(2.151)
Other Regressors		
Violence	0.012	0.021^{**}
	(0.012)	(0.010)
Vandalism	0.016	-0.058^{**}
	(0.032)	(0.026)
Weapons	-0.049	0.195^{***}
	(0.089)	(0.074)
Substances	-0.033	0.119^{***}
	(0.037)	(0.031)
White Male Enrollment	0.002	-0.014^{***}
	(0.006)	(0.005)
White Female Enrollment	-0.003	0.021^{***}
	(0.006)	(0.005)
Black Male Enrollment	-0.088^{***}	-0.012^{*}
	(0.009)	(0.007)
Black Female Enrollment	0.098^{***}	0.010
	(0.009)	(0.008)
Hispanic Male Enrollment	-0.014^{*}	0.010
	(0.008)	(0.007)
Hispanic Female Enrollment	0.002	-0.012^{*}
	(0.009)	(0.007)
Native American Male Enrollment	-0.493^{***}	0.070

	(0.078)	(0.065)
Native American Female Enrollment	0.649***	0.0004
	(0.090)	(0.075)
Asian Male Enrollment	−0.036**	0.032**
	(0.017)	(0.014)
Asian Female Enrollment	0.038**	−0.038**
	(0.018)	(0.015)
Free Lunch Enrollment	0.008***	0.001
	(0.001)	(0.001)
Reduced Price Lunch Enrollment	0.008***	0.002
	(0.002)	(0.002)
District Factor Code: GB	−3.933**	1.679
	(1.646)	(1.364)
District Factor Code: CD	−1.976	0.125
	(1.802)	(1.493)
District Factor Code: DE	−2.398	0.401
	(1.710)	(1.417)
District Factor Code: FG	−2.075	−3.081**
	(1.769)	(1.465)
District Factor Code: GH	−2.618	−6.709***
	(1.835)	(1.520)
District Factor Code: I	−1.603	−7.323***
	(1.906)	(1.579)
District Factor Code: J	−0.846	−7.513***
	(2.541)	(2.106)
Observations	1,177	1,177
R^2	0.791	0.385
Adjusted R^2	0.786	0.369
F Statistic (df = 25; 1147)	173.670***	28.699***
Note:		*p<0.1; **p<0.05; ***p<0.01

Appendix Table A3: Complete Results for Fixed Effects Analysis for Black Male Dropout and Black Female Dropout

	Dependent variable:	
	Black Male Dropout	Black Female Dropout
	(1)	(2)
One Year Under the Law	-6.603^{***}	-7.020^{***}
	(2.499)	(2.332)
Two Years Under the Law	-4.816^{*}	-3.408
	(2.596)	(2.422)
Other Regressors		
Violence	0.012	-0.002
	(0.012)	(0.011)
Vandalism	0.016	0.043
	(0.032)	(0.030)
Weapons	-0.049	-0.001
	(0.089)	(0.083)
Substances	-0.033	-0.038
	(0.037)	(0.035)
White Male Enrollment	0.002	0.001
	(0.006)	(0.005)
White Female Enrollment	-0.003	-0.001
	(0.006)	(0.006)
Black Male Enrollment	-0.088^{***}	-0.083^{***}
	(0.009)	(0.008)
Black Female Enrollment	0.098^{***}	0.092^{***}
	(0.009)	(0.008)
Hispanic Male Enrollment	-0.014^{*}	-0.015^{*}
	(0.008)	(0.008)
Hispanic Female Enrollment	0.002	0.003
	(0.009)	(0.008)
Native American Male Enrollment	-0.493^{***}	-0.455^{***}

	(0.078)	(0.073)
Native American Female Enrollment	0.649***	0.500***
	(0.090)	(0.084)
Asian Male Enrollment	−0.036**	−0.033**
	(0.017)	(0.016)
Asian Female Enrollment	0.038**	0.035**
	(0.018)	(0.017)
Free Lunch Enrollment	0.008***	0.006***
	(0.001)	(0.001)
Reduced Price Lunch Enrollment	0.008***	0.007***
	(0.002)	(0.002)
District Factor Code: GB	−3.933**	−4.790***
	(1.646)	(1.536)
District Factor Code: CD	−1.976	−3.116*
	(1.802)	(1.682)
District Factor Code: DE	−2.398	−3.814**
	(1.710)	(1.595)
District Factor Code: FG	−2.075	−3.450**
	(1.769)	(1.650)
District Factor Code: GH	−2.618	−3.628**
	(1.835)	(1.712)
District Factor Code: I	−1.603	−3.213*
	(1.906)	(1.779)
District Factor Code: J	−0.846	−2.546
	(2.541)	(2.371)
Observations	1,177	1,177
R^2	0.791	0.737
Adjusted R^2	0.786	0.730
F Statistic (df = 25; 1147)	173.670***	128.474***
Note:		*p<0.1; **p<0.05; ***p<0.01

Appendix Table A4: Complete Results for Fixed Effects Analysis for White Male Dropout and White Female Dropout

	Dependent variable:	
	White Male Dropout	White Female Dropout
	(1)	(2)
One Year Under the Law	−0.578	0.485
	(2.070)	(1.516)
Two Years Under the Law	−1.841	−2.135
	(2.151)	(1.575)
Other Regressors		
Violence	0.021**	0.018**
	(0.010)	(0.007)
Vandalism	−0.058**	−0.044**
	(0.026)	(0.019)
Weapons	0.195***	0.161***
	(0.074)	(0.054)
Substances	0.119***	0.060***
	(0.031)	(0.022)
White Male Enrollment	−0.014***	−0.015***
	(0.005)	(0.003)
White Female Enrollment	0.021***	0.021***
	(0.005)	(0.004)
Black Male Enrollment	−0.012*	−0.009*
	(0.007)	(0.005)
Black Female Enrollment	0.010	0.007
	(0.008)	(0.006)
Hispanic Male Enrollment	0.010	0.004
	(0.007)	(0.005)
Hispanic Female Enrollment	−0.012*	−0.006
	(0.007)	(0.005)
Native American Male Enrollment	0.070	0.064

	(0.065)	(0.048)
Native American Female Enrollment	0.0004	−0.0004
	(0.075)	(0.055)
Asian Male Enrollment	0.032**	0.022**
	(0.014)	(0.010)
Asian Female Enrollment	−0.038**	−0.026**
	(0.015)	(0.011)
Free Lunch Enrollment	0.001	0.001
	(0.001)	(0.0005)
Reduced Price Lunch Enrollment	0.002	0.0003
	(0.002)	(0.002)
District Factor Code: GB	1.679	1.480
	(1.364)	(0.999)
District Factor Code: CD	0.125	0.276
	(1.493)	(1.094)
District Factor Code: DE	0.401	0.176
	(1.417)	(1.037)
District Factor Code: FG	−3.081**	−2.710**
	(1.465)	(1.073)
District Factor Code: GH	−6.709***	−4.834***
	(1.520)	(1.113)
District Factor Code: I	−7.323***	−5.642***
	(1.579)	(1.157)
District Factor Code: J	−7.513***	−5.739***
	(2.106)	(1.542)
Observations	1,177	1,177
R^2	0.385	0.387
Adjusted R^2	0.369	0.372
F Statistic (df = 25; 1147)	28.699***	29.002***
Note:		*p<0.1; **p<0.05; ***p<0.01

Appendix Table A5: Correlation Matrix

	WMD	WFD	BMD	BFD	HMD	HFD	NAMD	NAFD	AMD	AFD T	TD
VIOLENCE	0.283	0.282	0.457	0.433	0.387	0.391	0.086	0.133	0.269	0.286	0.515
VANDALISM	0.115	0.109	0.429	0.423	0.352	0.358	0.074	0.174	0.144	0.139	0.439
WME	0.448	0.440	-0.061	-0.061	-0.039	-0.034	0.065	0.109	0.167	0.136	0.071
WFE	0.453	0.447	-0.060	-0.060	-0.043	-0.038	0.062	0.110	0.164	0.134	0.071
BME	0.049	0.040	0.848	0.815	0.510	0.511	0.185	0.229	0.248	0.226	0.729
BFE	0.049	0.039	0.854	0.822	0.517	0.518	0.187	0.231	0.247	0.224	0.735
HME	0.097	0.091	0.580	0.518	0.843	0.826	0.234	0.247	0.353	0.281	0.734
HFE	0.095	0.090	0.580	0.519	0.848	0.831	0.238	0.247	0.358	0.286	0.737
NAME	0.153	0.156	0.420	0.348	0.439	0.417	0.512	0.375	0.575	0.542	0.484
NAME	0.163	0.165	0.402	0.331	0.429	0.405	0.490	0.376	0.581	0.554	0.472
AME	0.063	0.057	0.124	0.096	0.185	0.172	0.284	0.262	0.537	0.498	0.184
AFE	0.061	0.055	0.116	0.090	0.174	0.161	0.270	0.253	0.526	0.489	0.174
TE	0.273	0.262	0.676	0.627	0.654	0.647	0.271	0.314	0.439	0.375	0.757
FLE	0.100	0.094	0.788	0.732	0.777	0.765	0.258	0.273	0.364	0.311	0.827
RPLE	0.188	0.176	0.718	0.660	0.727	0.720	0.314	0.313	0.424	0.364	0.790

Appendix Table A6: Key for Appendix Table A5

Abbreviation	Variable
WME	WHITE MALE ENROLLMENT
WFE	WHITE MALE ENROLLMENT
BME	BLACK MALE ENROLLMENT
BFE	BLACK FEMALE ENROLLMENT
HME	HISPANIC MALE ENROLLMENT
HFE	HISPANIC FEMALE ENROLLMENT
NAME	NATIVE AMERICAN MALE ENROLLMENT
NAFE	NATIVE AMERICAN FEMALE ENROLLMENT
AME	ASIAN MALE ENROLLMENT
AFE	ASIAN FEMALE ENROLLMENT
FLE	FREE LUNCH ENROLLMENT
RPLE	REDUCED PRICE LUNCH ENROLLMENT
WMD	WHITE MALE DROPOUT
WMD	WHITE MALE DROPOUT
WFD	WHITE FEMALE DROPOUT
BFD	BLACK FEMALE DROPOUT
HMD	HISPANIC MALE DROPOUT
HFD	HISPANIC FEMALE DROPOUT
NAMD	NATIVE AMERICAN MALE DROPOUT
NAFD	NATIVE AMERICAN FEMALE DROPOUT
AMD	ASIAN MALE DROPOUT
AFD	ASIAN FEMALE DROPOUT
TD	TOTAL DROPOUT