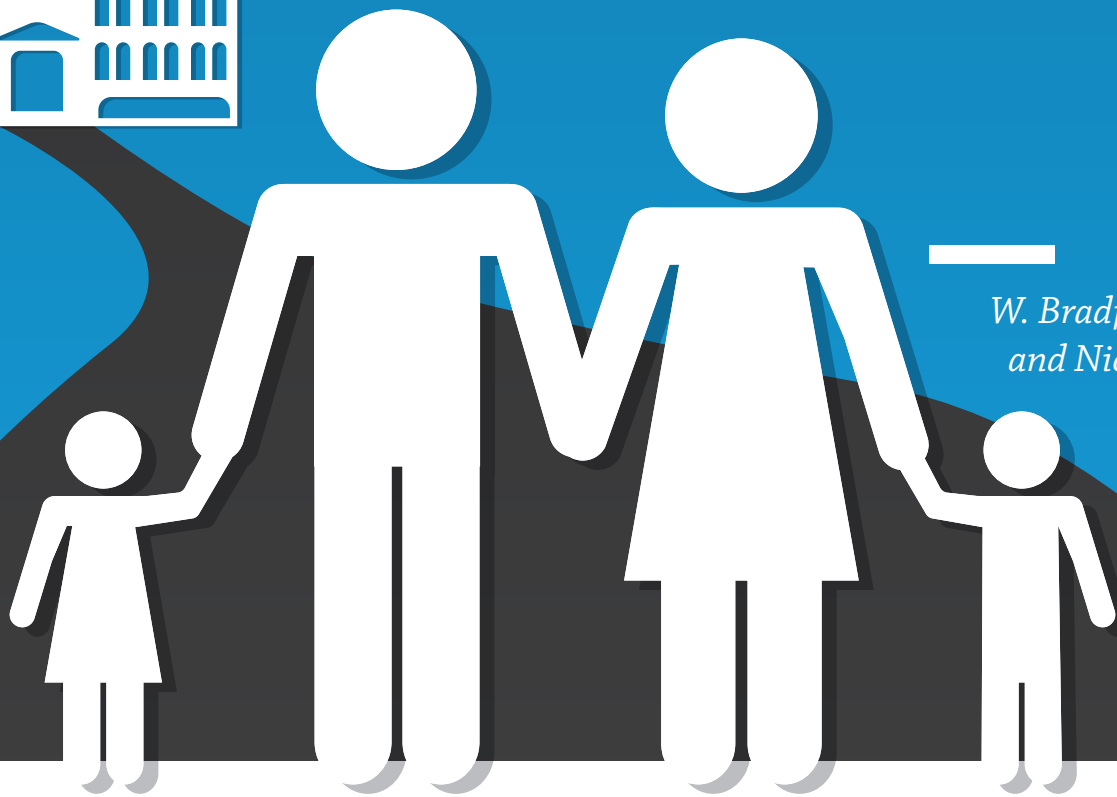
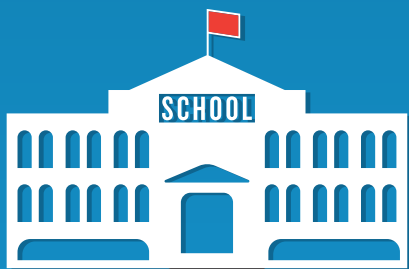


STRONG FAMILIES, SUCCESSFUL SCHOOLS

High School Graduation and School Discipline in the Sunshine State



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Executive Summary

A growing body of research indicates that children’s family background is an important predictor of their performance in school. *Strong Families, Successful Schools* builds on this research to explore the links between family structure, family income, and parental education and student performance at the county level in Florida. Specifically, *Strong Families, Successful Schools* finds that the share of married parent families in a county is one of the strongest predictors of high school graduation rates in the 67 counties across Florida, as well as recent growth in high school graduation rates in the Sunshine State. The share of married families also is the strongest predictor of county school suspension rates in Florida in our models. Moreover, the share of families headed by married couples is a more powerful predictor of high school graduation and school suspension rates than are income, race, and ethnicity in Florida—factors that tend to get more attention in media and policy circles. The report also finds that parental education is the best predictor of county high school graduation rates in Florida, according to our models. In sum, Florida counties that enjoy strong and stable families also tend to enjoy more successful and safer schools. Accordingly, policymakers, educators, and civic leaders should work to strengthen families—as well as schools—across the Sunshine State.

Introduction

Fifty years ago, what later became known as the *Coleman Report* upended much of the conventional wisdom at that time about American education. Many scholars, educators, and policymakers at the time assumed that the quality, character, and spending of schools mattered most in predicting children's outcomes. But sociologist James Coleman and his colleagues' 737-page report commissioned by the U.S. Office of Education, *Equality of Educational Opportunity*, challenged the assumption that schools' influence was paramount. Instead, the Coleman report found that children's family backgrounds—their parents' education, income, and family structure—were more powerful predictors of school success than the quality, character, and spending of their schools.¹

Although contemporary research has detailed a range of ways in which schools actually make a difference for children's education,² it also lends confirmation to Coleman's conclusion that the family is very influential in shaping student success and behavior in school. Parental education and income matter, insofar as parents with more education and income have the resources to pick better neighborhoods, expose their children to more books and rich cultural experiences, feel more confident about involving themselves in parent-teacher-organization (PTO) groups, and get their children into higher-quality private and public schools.³ Family structure also matters, given that intact, two parent families are more likely to provide children with the stability, intellectual stimulation, economic resources, attention, and consistent discipline they need to thrive in school.⁴

This report focuses on the relationship between family structure and student success in counties across Florida. It is particularly timely because new research from MIT economist David Autor and his colleagues has recently spotlighted the connection between family structure and school performance in the Sunshine State. In fact, their study of more than one million Florida children indicates that poor boys, more than poor girls, are hit particularly hard by family breakdown. After comparing brothers and sisters from father-absent homes, Autor and his colleagues concluded that the “boy-girl gap in suspensions is far smaller in families where children are born to married parents” and that the gender gap in high-school graduation is smaller for children whose parents are married than for children in single-mother homes.⁵ Autor told *The New York*

¹ James Coleman et al., *Equality of Educational Opportunity* (Washington, DC: National Center for Educational Statistics, 1966); See also Anna J. Egalite, “How Family Background Influences Student Achievement,” *EducationNext* 16, no. 2 (2016): 71-78; and Ben Wattenberg, *The First Measured Century*, “The Moynihan Report: When Politics and Sociology Collide,” PBS, 2000.

² Steven G. Rivkin et al., “Teachers, Schools, and Academic Achievement,” *Econometrica* 73, no. 2 (2005): 417-458; Spyros Konstantopoulos, “Trends of school effects on student achievement: Evidence from NLS:72, HSB:82, and NELS:92,” *Teachers College Record* 108, no. 12 (2006): 2550-2581.

³ Egalite, “How Family Background Influences Student Achievement,” 72; Nicole Garcia Hernandez, “The Parental Readiness and Empowerment Program (PREP) and its Effects on Parent Advocacy for Their Children” (master's thesis, San Diego State University, 2013); Ariel Kalil et al., “Diverging destinies: Maternal Education and Investments in Children,” *Demography* 49, no. 4 (2012): 1361-1383; Barbara Schneider and James Coleman (Eds.), *Parents, Their Children, and Schools* (Boulder, CO: Westview, 1996).

⁴ Sara McLanahan and Gary Sandefur, *Growing Up With a Single Parent: What Hurts, What Helps*. (Cambridge, MA: Harvard, 1994); Nicholas Zill, “Family Change and Student Achievement: What We Have Learned, What It Means for Schools,” in *Family-school Links: How Do They Affect Educational Outcomes?*, ed. Alan Booth and Judith F. Dunn (Mahwah, NJ: Erlbaum, 1996).

⁵ David Autor et al., *Family Disadvantage and the Gender Gap in Behavioral and Educational Outcomes* (Evanston, IL: Northwestern University Institute for Policy Research, 2015).

Times: “Boys particularly seem to benefit more from being in a married household or committed household — with the time, attention and income that brings.”⁶

Unlike Autor’s work, however, *Strong Families, Successful Schools* focuses not on the association between family structure and individual children’s educational outcomes in Florida, but on the links between family structure and school performance at the collective level, in this case, counties across Florida. We hypothesize that counties with more married families enjoy higher levels of parental engagement, better parental discipline, and more parental involvement in PTO groups, all factors that would likely redound to the social and educational benefit of children in these counties. This report, in particular, explores three questions:

- 1 - What is the relationship between county-level differences in family structure and current high school graduation rates at the county level in Florida, after controlling for education, income, race/ethnicity, and population size at the county level?
- 2 - What is the relationship between county-level differences in family structure and recent increases/decreases in high school graduation rates (from 2011 to 2015), net of controls for county-level sociodemographic factors?
- 3 - What is the relationship between county-level differences in family structure and school suspension rates in counties across Florida, net of controls for county-level sociodemographic factors?

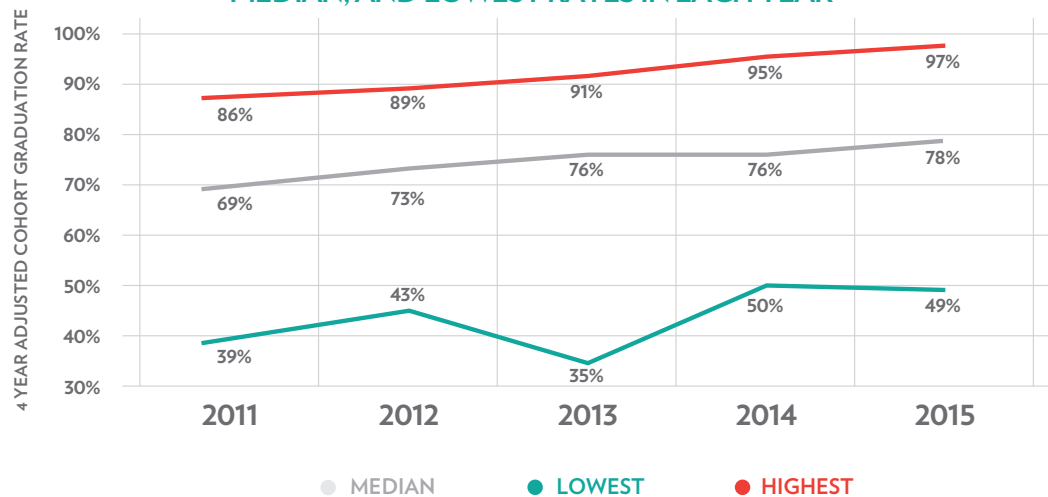


⁶Claire Cain Miller, “A Disadvantaged Start Hurts Boys More Than Girls,” *The New York Times*, October 22, 2015.

Recent Trends in High School Graduation Rates in Florida

Between the 2010-2011 and 2014-2015 school years, high school graduation rates in Florida rose from a statewide average of less than 71 percent to just under 78 percent. The average graduation rate over the five-year period was close to 75 percent. The annual increase in graduation rates averaged 1.6 percentage points.⁷ There was substantial variation across the 67 counties of Florida, however, both in average graduation rates and in the extent to which rates changed from year to year. Figure 1 shows the graduation rate for Florida counties that had the highest, median, and lowest graduation rate in each academic year between 2010-11 and 2014-15 (not necessarily the same county in every year). The five-year average graduation rate for Jefferson County, the county with the lowest average rate was 49 percent, while the rate for Gilchrist County, the school system with the highest average rate, was 89 percent. In Manatee County, the school district with the median graduation rate, 74 percent of students graduated. Average graduation rates for all 67 Florida counties may be found in Appendix Table A1.

FIGURE 1
HIGH SCHOOL GRADUATION RATES FOR FLORIDA COUNTIES WITH HIGHEST, MEDIAN, AND LOWEST RATES IN EACH YEAR



The year-to-year change in graduation rates over this period also showed considerable variation across counties. In Putnam County, the county with the lowest annual rate of change, graduation rates *declined* by an average of 1.7 percentage points per year.⁸ In Dixie County, the county with the highest rate of change, the proportion of students graduating increased by an average of 10 percentage points per year. In typical counties, such as Hernando or Hendry, graduation rates increased at the same rate as the overall Florida growth rate, 1.6 percentage points. Average gains in graduation rates from year to year for all Florida counties may also be found in Appendix Table A1.

⁷ The estimate of annual increase in graduation rates is the slope of the regression line fit to the county's graduation rates over the five years, 2011-2015.

⁸ See footnote 7 above for method of estimating county's annual change in graduation rates.

Diploma Demographics

Variations in graduation rates across counties were related to several demographic characteristics of the counties, namely, the proportion of married-couple families, the average educational attainment of adults, median family income, and the racial and ethnic composition of the school-aged child population. The proportion of married-couple families and median family income were based on those families in each county that had children enrolled in public schools. Differences across counties in these demographic characteristics as of the 2009-2013 time period are summarized in Table 1. In the typical Florida county, just under 60 percent of households with children consisted of married-couple families, 18 percent of adults over 25 had graduated from college, median family income for families with school-aged children was \$48,000, 14 percent of school-aged children were African-American and 13 percent were Hispanic-American. Demographic profiles of all 67 Florida counties may be found in Appendix Table A2.

DEMOGRAPHIC CHARACTERISTICS	MEDIAN	LOWEST	HIGHEST
% Adults with College Degrees	18.1%	7.8%	44.2%
% Married-Couple Families	59.8%	44.6%	80.9%
Median Family Income	\$48,055	\$30,360	\$83,567
% Black Students	14.4%	0.9%	71.7%
% Hispanic Students	13.0%	0.0%	61.2%
School Enrollment	13,253	1,297	354,195

PERIOD: 2009 - 2013

TABLE 1. Selected demographic characteristics of Florida counties, 2009-2013. (Source: U.S. Bureau of the Census American Community Survey and National Center for Education Statistics. Percent married-couple families, median family income, percent African-American students and percent Hispanic-American students based on households with children enrolled in public schools.)

Married-couple families. High school graduation rates were higher in Florida counties with more children growing up in married-couple families. Of the ten counties with the *highest* average graduation rates, five were in the top quintile with respect to their proportion of married-couple families. Four were in the second highest quintile, while one was in the bottom quintile. Of the ten counties with the *lowest* graduation rates, seven were in the bottom quintile on married-couple families. One was in the fourth quintile, while two were in the third quintile. The value of the cross-county correlation coefficient between high school graduation rates and proportion of married-couple families was $r = .61^*$.⁹

Adult education level. High school graduation rates were higher in Florida counties with more adults who had completed or at least attended college. Of the ten counties with the *highest* average graduation rates, four were in the top quintile with respect to average adult education level, as shown in Table 2. Three were in the second highest quintile and one in the third. Of the ten counties with the *lowest* graduation rates, three were in the bottom quintile with respect to adult educational attainment, as shown in Table 3. Six were in the fourth quintile, and one in the third quintile. The value of the cross-county correlation coefficient between high school graduation rates and average adult educational attainment was $r = .48^*$.

⁹ The asterisks here and below signify that the correlation coefficient is significantly different from zero at $p < .05$ or better.

TOP TEN HIGH SCHOOL GRADS	MARRIED COUPLES	ADULT ED LEVEL	FAMILY INCOME	BLACK STUDENTS	HISPANIC STUDENTS
Gilchrist	TOP	4 TH	2 ND	4 TH	4 TH
Nassau	TOP	3 RD	2 ND	BOTTOM	BOTTOM
St. Johns	TOP	TOP	TOP	BOTTOM	4 TH
Martin	TOP	TOP	TOP	BOTTOM	2 ND
Brevard	2 ND	2 ND	TOP	3 RD	3 RD
Okaloosa	2 ND	2 ND	TOP	4 TH	3 RD
Seminole	2 ND	TOP	TOP	3 RD	2 ND
Gulf	BOTTOM	4 TH	BOTTOM	4 TH	BOTTOM
Santa Rosa	TOP	2 ND	TOP	BOTTOM	4 TH
Collier	2 ND	TOP	3 RD	4 TH	TOP

TABLE 2. Demographic characteristics of ten Florida counties with highest average graduation rates, 2011-2015. (Quintile in which county placed on each, 2009-2013.) (Sources: Florida Department of Education for graduation rates; U.S. Bureau of the Census American Community Survey and National Center for Education Statistics for school district demographic characteristics.)

Income. High school graduation rates were higher in Florida counties with higher family incomes. Of the top ten counties with the *highest* average graduation rates, six were in the top quintile with respect to median family income. Two were in the second highest quintile, while one was in the third quintile, and one was in the bottom quintile. Of the *bottom* ten counties with respect to graduation rates, six were also in the bottom quintile with respect to income. Two were in the fourth quintile, while two were in the third quintile. The value of the cross-county correlation coefficient between high school graduation rates and median family income was $r = .61^*$.

Student race and ethnicity. Graduation rates were lower in counties with larger proportions of African-American children. Of the *top* ten counties in terms of average graduation rates, four were in the bottom quintile with respect to their proportions of African-American students. Four were in the fourth quintile, and two were in the third quintile. Of the *bottom ten* counties for graduation rates, three were in the top quintile with respect to their proportion of black students. Two were in the second highest quintile, two in the third quintile, two in the fourth quintile, while one was in the quintile with the least black students. The value of the cross-county correlation coefficient between high school graduation rates and proportion of black students was $r = -.48^*$.

BOTTOM TEN HIGH SCHOOL GRADS	MARRIED COUPLES	ADULT ED LEVEL	FAMILY INCOME	BLACK STUDENTS	HISPANIC STUDENTS
Jefferson	BOTTOM	3 RD	3 RD	TOP	BOTTOM
Putnam	BOTTOM	4 TH	BOTTOM	2 ND	3 RD
Franklin	3 RD	4 TH	3 RD	4 TH	BOTTOM
Gadsden	BOTTOM	4 TH	BOTTOM	TOP	3 RD
Taylor	BOTTOM	4 TH	4 TH	TOP	BOTTOM
Okeechobee	BOTTOM	BOTTOM	BOTTOM	4 TH	TOP
Highlands	3 RD	4 TH	BOTTOM	2 ND	TOP
Glades	BOTTOM	4 TH	BOTTOM	BOTTOM	TOP
DeSoto	BOTTOM	BOTTOM	BOTTOM	3 RD	TOP
Suwannee	4 TH	BOTTOM	4 TH	3 RD	3 RD

TABLE 3. Demographic characteristics of ten Florida counties with lowest average graduation rates, 2011-2015. (Quintile in which county placed on each, 2009-2013.) (Sources: Florida Department of Education for graduation rates; U.S. Bureau of the Census American Community Survey and National Center for Education Statistics for school district demographic characteristics.)

Graduation rates were not significantly related to the proportion of Hispanic children in a county. Of the *top ten* counties on graduation rates, only one was in the top quintile with respect to Hispanic enrollment. Two were in the second quintile, two were in the third quintile, three were in the fourth quintile, while three were in the bottom quintile. Of the *bottom ten* counties on graduation rates, four were in the top quintile with respect to Hispanic enrollment. Three were in the third quintile and three were in the bottom quintile. The value of the cross-county correlation coefficient between high school graduation rates and Hispanic enrollment was $r = -.06$ ns.

Size of child population. Florida counties vary widely in the number of school-aged children enrolled in their public school systems. During the 2009-2013 period, the ten largest counties had average enrollments that ranged from 67,000 for Seminole County to 355,000 for Miami-Dade County. During the same time period, the ten smallest counties had enrollments that ranged from 1,300 for Lafayette County to 2,300 for Dixie County. The median county had an enrollment of 13,280, while the mean enrollment for Florida counties was considerably higher—40,280.

There was some tendency for larger counties to have higher graduation rates than smaller counties. The median graduation rate for the ten largest counties was 75 percent, for example, whereas the median rate for the ten smallest counties was 72 percent. Two of the largest counties (Brevard and Seminole) were among the top ten in graduation rates, while three of the smallest counties (Glades, Franklin, and Taylor) were among the bottom ten in graduating proportions. But the relationship between enrollment size and graduation rates, while weakly positive, was not statistically significant ($r = .16$ ns).

Higher Graduation Rates in Counties with More Married-Couple Families

When we combined five demographic characteristics of counties in a multivariate regression analysis, the ones that emerged as most predictive of average graduation rates were the proportion of married-couple families, the average adult education level, and the proportion of black children in the county. The regression model accounted for 58 percent of the variance in graduation rates across counties. The value of the multiple correlation coefficient relating the combined demographic factors to graduation rates was $R = .76^*$. This was significantly larger than the largest bivariate coefficients for the individual demographic characteristics. Table 4 summarizes the bivariate correlation coefficients for each of the demographic factors on its own, as well as the standardized correlation coefficient for each factor in the multivariate analysis. A summary of the regression analysis is presented in Appendix Table A3.

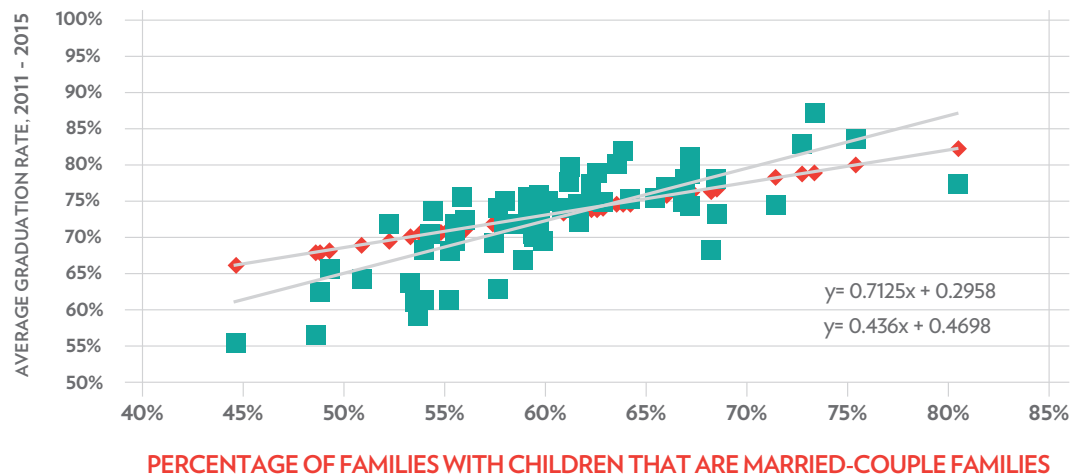
DEMOGRAPHIC CHARACTERISTIC	BIVARIATE r	MULTIVARIATE β
% Married-Couple Families	.61*	.38*
Median Family Income	.61*	-.01ns
Avg. Adult Education Level	.48*	.45*
% Black Students	-.48*	-.29*
% Hispanic Students	-.06*	<.01ns
VARIANCE MODEL ACCOUNTS FOR		R Squared = .58* R = .76*

Table 4. Relationships of demographic characteristics of Florida counties to high school graduation rate in county; county demographic characteristics as of 2009-2013; county graduation rates, 2011-2015 average. (Source: Authors' analysis of data from Florida Department of Education for graduation rates; U.S. Bureau of the Census American Community Survey and National Center for Education Statistics for school district demographic characteristics.)

The positive relationship between the proportion of married-couple families in a school district and the graduation rate of the district was weaker in the multivariate model ($\beta = .38^*$) than as an uncontrolled bivariate relationship ($r = .61^*$). Part of the relationship between family structure and graduation rate is attributable to differences in racial and ethnic composition, as well as parent education and family income levels. But a significant link between having more married-couple families and higher graduation rates remained. In fact, family structure is the second strongest predictor of county graduation rates, after adult education levels, and is stronger than income, race, and ethnicity. As shown in Figure 2, before adjustment, there was a seven percentage-point increase in graduation rates for every ten percentage-point increase in married-couple families in a county. After adjustment for education and race, there was a four percentage-point increase in graduation rates for every ten percentage-point rise in married-couple families.

FIGURE 2

MARRIED-COUPLE FAMILIES AND HIGH SCHOOL GRADUATION RATE IN FLORIDA COUNTIES: OBSERVED AND ADJUSTED RELATIONSHIP



The negative relationship between the proportion of black children in a school district and the graduation rate of the district was weaker in the multivariate model (beta = $-.29^*$) than as an uncontrolled bivariate relationship ($r = -.48^*$). This is probably because counties with higher black populations tend to have more concentrated poverty, fewer married-couple families, and greater residential segregation.

Note that median family income, which had a strong positive relationship to graduation rate on a bivariate basis, was no longer significant in the multivariate model. This is likely due to the fact that family income was itself strongly related to adult education level ($r = .66^*$) and proportion of married-couple families in a county ($r = .67^*$). When these characteristics were combined in a multiple regression analysis, along with race and ethnicity, they accounted for 79 percent of the cross-county variance in income ($R = .89^*$). The multiple regression results indicate that income accounts for no further variance in county graduation rates above that accounted for by educational attainment of adults, family structure, and ethnic composition of the child population.

Broward County, on the southeast coast of Florida, is the second most populous county in Florida, and the 18th most populous county in the U.S. Its county seat is Fort Lauderdale. With nearly 30 percent of adults having college degrees, it ranks among the top ten counties in Florida in terms of adult educational attainment. It is also above average with respect to median family income. It is below average in terms of the formation and maintenance of two-parent families, however, with 58 percent of households with school-aged children consisting of married-couple families. It has only a middling rank with respect to four-year high school graduation rates, with an average rate of 74.8 percent during the 2011-2015 time period. It has shown an upward trend in graduation rates in recent years, but the annual rate of gain has been below average for Florida school districts. Eighth grade students in the county have shown an upward trend in their scores on standardized tests of reading skills, but not math skills. Broward is a “majority minority” county, and as of the 2009-2013 time period, two-thirds of its public school enrollment was comprised of African-American (37 percent) or Hispanic-American (29 percent) students. In the light of our analysis in this report, Broward County’s high school graduation rate would probably be higher were more of its families headed by married parents.

Greater Gains in Counties with Lower Initial Graduation Rates

Thus far we have examined differences across Florida counties in their average *levels* of high school graduation during the 2011-2015 time period. But what about variations in the *gains* counties made in raising their graduation rates during that interval? As we noted earlier, there was considerable variation in these year-to-year changes, from a ten percent annual increase to nearly a two percent annual decline. When we looked at factors that might account for differences across counties in how much progress they made, we found that none of the demographic factors we have discussed helped account for differences in graduation gains (*rs* ranged from .18 to -.17, all *ns*). At least not on the face of it.

One county characteristic *did* relate to annual gains, however. This was the average high school graduation rate in the county at the start of the interval. The initial graduation rate was inversely related to the annual gain in rates over the interval. Counties that had high graduation rates at the start of the 2011-2015 time period tended to have lower gains over the interval than counties that had relatively low graduation rates at the start.

Examples of school districts with lower initial graduation rates and larger-than-average gains were Escambia County, which began with a 58 percent graduation rate and had an average annual increase of 3.4 percentage points; or Bradford County, which began with a 61 percent graduation rate and had an average annual increase of 3.9 percentage points. Examples of school districts with higher initial graduation rates and nil or only modest gains were Lake County, which started with a 75 percent rate, fluctuated from year-to-year, and had an average annual gain of -0.1 percentage points; or Charlotte County, which began with a 73 percent rate and had an average annual gain of 0.5 percentage points.¹⁰



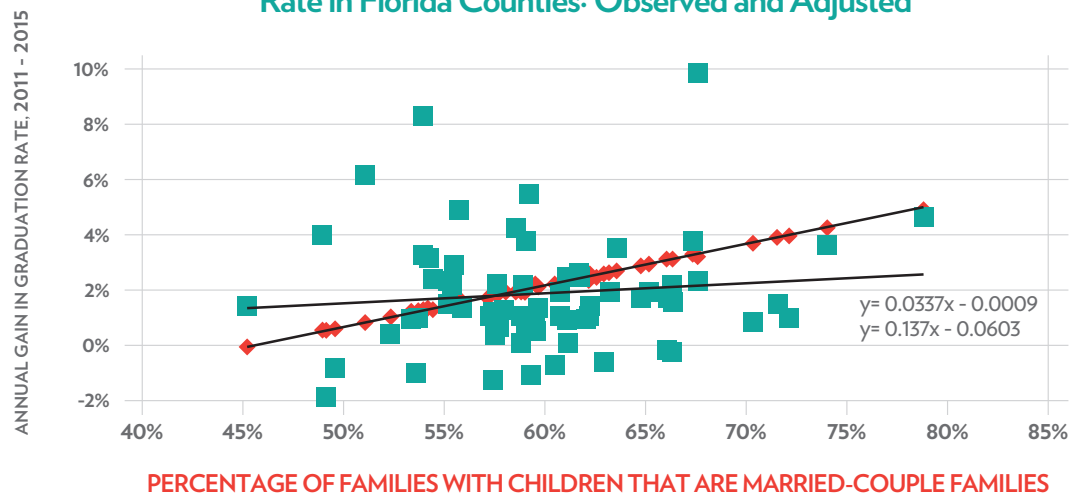
¹⁰ See footnote 7 above for method of estimating a county's annual change in graduation rates.

Greater Gains in Counties with More Married-Couple Families

When we took the inverse relationship between initial graduation rate and graduation gains into account, we found that one demographic characteristic did turn out to be significantly related to greater progress in raising rates. That was the proportion of married-couple families in the county. Counties with more married-couple families made greater strides toward getting all pupils to complete high school. This is shown in Figure 3, which depicts the unadjusted and adjusted relationship between married-couple family percentage and average annual graduation gains in the 67 Florida counties. Before adjustment, there was essentially no relationship between the two variables. After adjustment, the average annual gain in graduation rates was 1.4 percentage points higher for every ten percentage points that a county had a higher percentage of married-couple families.

FIGURE 3

Married Couple Families and Annual Gain in High School Graduation Rate in Florida Counties: Observed and Adjusted



A regression model combining initial graduation rate, percent married-couple families and demographic controls accounted for 44 percent of the variance in annual gains across counties. The value of the multiple correlation coefficient relating the combined factors to graduation rates was $R = .66^*$. Here, family structure was the strongest predictor of gains across counties in high school graduation, after controlling for graduation rates in 2011. A summary of the regression analysis is presented in Table 5 below and a reduced model is shown in Appendix Table A4.

DEMOGRAPHIC CHARACTERISTIC	BIVARIATE <i>r</i>	MULTIVARIATE <i>beta</i>
% Married-Couple Families	.11	.40*
Initial Graduation Rate	-.49*	-.79*
Median Family Income	.10	.12ns
% College Graduates	-.08	.15ns
% Black Students	.18	.02ns
% Hispanic Students	-.17	-.04ns
VARIANCE MODEL ACCOUNTS FOR		R Squared = .44* R = .66*

Table 5. Relationships of demographic characteristics of Florida counties to annual gain in high school graduation rate in county, 2011-2015; county demographic characteristics as of 2009-2013. (Source: Authors' analysis of data from Florida Department of Education for graduation rates; U.S. Bureau of the Census American Community Survey and National Center for Education Statistics for school district demographic characteristics.)

Duval County is on the northeast coast of Florida with Jacksonville as its county seat. With more than 26 percent of adults in the county having college degrees, it is above average in terms of adult educational attainment. It is about average in terms of median family income. But it ranks in the lowest quintile of Florida counties with respect to the formation and maintenance of two-parent families, with 54 percent of households with school-aged children consisting of married-couple families. The county is below average in terms of four-year high school graduation rates, with an average rate of 70.7 percent during the 2011-2015 time period. It has shown an upward trend in graduation rates in recent years, and the annual rate of gain has been above average for Florida school districts. Eighth grade students in the county have shown an upward trend in their scores on standardized tests of reading skills, but not math skills. Duval is now a “majority minority” county with respect to its public school enrollment, though not its total population. As of 2009-2013, just over half of its public school enrollment was comprised of African-American (41 percent) or Hispanic-American (10 percent) students. Judging by our analysis in this report, Duval’s high school graduation rate would probably be higher were more of its families headed by married parents.

Fewer Disciplinary Problems in Counties with More Married-Couple Families

Demographic characteristics of the family and child populations of Florida counties were related to the frequency of disciplinary problems in schools, as well as to high school graduation rates. The overall rate of student suspensions in the state of Florida was 13.7 per 100 pupils in 2013-2014, including both in-school and out-of-school suspensions. The county with the highest suspension rate (Taylor) had a rate of 41.7, whereas the school district with the lowest rate (Jefferson) had a rate of 3.2. Both of these counties were among the ten lowest in Florida in terms of high school graduation rates. Fewer students had to be suspended because of serious disciplinary issues in school districts with more married-couple families, more college-educated adults, higher family incomes, and more Hispanic students. The bivariate correlation coefficients between county demographic characteristics and the rate of in-school and out-of-school suspensions are shown in Table 6.

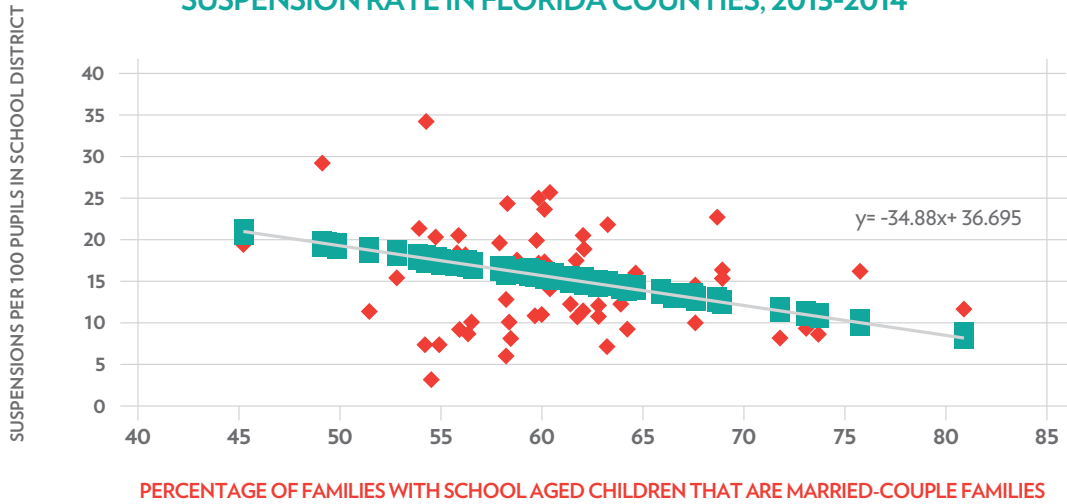
DEMOGRAPHIC CHARACTERISTIC	BIVARIATE r	MULTIVARIATE beta
Median Family Income	-.32*	.09ns
% Married-Couple Families	-.32*	-.45*
% Adult College Graduates	-.35*	-.34*
% Black Students	.16ns	-.07ns
% Hispanic Students	-.23+	-.27*
VARIANCE MODEL ACCOUNTS FOR		R Squared = .28* R = .53*

Table 6. Relationships of demographic characteristics of Florida counties to school suspension rates in county (number of in-school and out-of-school suspensions per 100 pupils); county demographic characteristics as of 2009-2013; county suspension rates as of 2013-14. (Source: Authors' analysis of data from Florida Department of Education for suspension rates; U.S. Bureau of the Census American Community Survey and National Center for Education Statistics for school district demographic characteristics.)

When we combined five demographic characteristics of counties in a multivariate regression analysis, the ones that proved to be predictive of suspension rates were the proportion of married-couple families, the percentage of adults with college degrees or more education, and the proportion of Hispanic children in the county. All three of these factors were associated with lower suspension rates in a school district. Neither family income nor proportion of black students was significant in the multivariate analysis. Holding adult college graduates and ethnic composition of counties constant at their mean levels, the school suspension rate was lower by 3.5 points for every ten percentage points that the proportion of married-couple families in a county was higher. Figure 4 shows the regression adjusted relationship between suspension rates and the proportion of married-couple families.

FIGURE 4

RELATIONSHIP BETWEEN MARRIED-COUPLE FAMILIES AND SCHOOL SUSPENSION RATE IN FLORIDA COUNTIES, 2013-2014



The regression model accounted for 28 percent of the variance in suspension rates across counties. The value of the multiple correlation coefficient relating the combined demographic factors to suspension rates was $R = .53^*$. Table 6 summarizes the standardized correlation coefficient for each factor in the multivariate analysis. Here, the strongest predictor of county-level suspension rates is family structure. A summary of the regression analysis is presented in Appendix Table A5.



Conclusion

This report does not explore the role that the quality, character, and spending of county schools plays in high school graduation and suspension rates across the 67 counties of Florida. Given the research, school quality is an undoubtedly important factor in accounting for county-level differences in Florida children’s educational performance. But, as James Coleman might have predicted, so too is family background.

In particular, *Strong Families, Successful Schools* finds that the share of married parent families in a county is one of the strongest predictors of high school graduation rates in counties across Florida, as well as recent growth in high school graduation rates in the Sunshine State. The share of married families also is the strongest predictor of county school suspension rates in our models. Moreover, the share of families headed by married couples is a more powerful predictor of high school graduation and school suspension rates than are income, race, and ethnicity—factors that tend to get more attention in media and policy circles. The bottom line is this: Florida counties that enjoy strong and stable families also tend to enjoy more successful and safer schools. It’s for that reason, among others, that policymakers, educators, and civic leaders should work to strengthen families—as well as schools—across the Sunshine State.

Appendix

TABLE A1
RECENT TRENDS IN HIGH SCHOOL GRADUATION RATES IN FLORIDA

NAME OF COUNTY/DISTRICT	AVG HS GRAD RATE	ANNUAL GAIN
Alachua County School District, FL	70.2%	2.5%
Baker County School District, FL	73.4%	3.6%
Bay County School District, FL	71.2%	0.2%
Bradford County School District, FL	68.2%	3.9%
Brevard County School District, FL	85.2%	1.0%
Broward County School District, FL	74.8%	0.8%
Calhoun County School District, FL	79.4%	2.3%
Charlotte County School District, FL	75.9%	0.2%
Citrus County School District, FL	77.4%	0.5%
Clay County School District, FL	78.1%	2.5%
Collier County School District, FL	79.7%	2.7%
Columbia County School District, FL	65.1%	1.2%
Dade County School District, FL	75.8%	1.4%
DeSoto County School District, FL	63.2%	-0.9%
Dixie County School District, FL	79.3%	10.0%
Duval County School District, FL	70.7%	3.3%
Escambia County School District, FL	64.6%	3.4%
Flagler County School District, FL	75.4%	1.8%
Franklin County School District, FL	59.1%	-0.9%
Gadsden County School District, FL	59.2%	1.5%
Gilchrist County School District, FL	89.0%	3.8%
Glades County School District, FL	63.2%	6.2%
Gulf County School District, FL	81.9%	0.5%
Hamilton County School District, FL	65.6%	4.1%
Hardee County School District, FL	63.7%	-1.1%
Hendry County School District, FL	70.2%	1.6%
Hernando County School District, FL	74.9%	1.6%
Highlands County School District, FL	62.4%	1.0%
Hillsborough County School District, FL	73.1%	1.4%
Holmes County School District, FL	75.6%	1.0%
Indian River County School District, FL	77.5%	0.6%
Jackson County School District, FL	69.2%	1.1%
Jefferson County School District, FL	49.3%	8.4%
Lafayette County School District, FL	75.6%	4.8%
Lake County School District, FL	76.9%	-0.1%
Lee County School District, FL	73.0%	1.5%
Leon County School District, FL	77.5%	5.0%
Levy County School District, FL	72.3%	3.8%
Liberty County School District, FL	67.1%	5.6%

TABLE A1 - CONTINUED

RECENT TRENDS IN HIGH SCHOOL GRADUATION RATES IN FLORIDA - CONTINUED

NAME OF COUNTY/DISTRICT	AVG HS GRAD RATE	ANNUAL GAIN
Madison County School District, FL	64.2%	1.1%
Manatee County School District, FL	74.3%	2.6%
Marion County School District, FL	76.1%	2.5%
Martin County School District, FL	86.5%	1.7%
Monroe County School District, FL	71.2%	2.5%
Nassau County School District, FL	88.1%	2.3%
Okaloosa County School District, FL	83.1%	-0.5%
Okeechobee County School District, FL	62.2%	1.0%
Orange County School District, FL	74.7%	1.3%
Osceola County School District, FL	78.1%	1.0%
Palm Beach County School District, FL	77.0%	1.1%
Pasco County School District, FL	76.3%	1.8%
Pinellas County School District, FL	72.7%	3.0%
Polk County School District, FL	68.4%	0.7%
Putnam County School District, FL	58.7%	-1.7%
Santa Rosa County School District, FL	80.0%	1.6%
Sarasota County School District, FL	77.1%	2.0%
Seminole County School District, FL	82.9%	2.0%
St. Johns County School District, FL	87.4%	1.1%
St. Lucie County School District, FL	70.5%	2.3%
Sumter County School District, FL	78.6%	1.1%
Suwannee County School District, FL	63.5%	4.3%
Taylor County School District, FL	60.2%	-0.7%
Union County School District, FL	76.7%	2.0%
Volusia County School District, FL	67.8%	2.3%
Wakulla County School District, FL	75.4%	1.2%
Walton County School District, FL	73.8%	-0.6%
Washington County School District, FL	69.5%	-0.1%

Average HS Grad Rate = Mean of 4-year adjusted cohort graduation rates for 2011-2015.

Annual Gain = Slope of best-fit line for 2011-2015 4-year adjusted cohort graduation rates.

SOURCE: Authors' analysis of data from Florida Department of Education, "Florida's High-School Cohort Graduation Rate, 2014-15," 2016.

TABLE A2

DEMOGRAPHIC PROFILE OF FLORIDA COUNTIES

NAME OF COUNTY/DISTRICT	% COLLEGE GRADS	ADULT ED SCALE	% MCPF	INCOME	% BLACK	% HISPANIC	ENROLLMENT
Alachua County School District, FL	40.5%	3.2	54.5%	\$55,294	32.8%	8.7%	27,015
Baker County School District, FL	10.0%	2.3	64.4%	\$53,300	13.3%	3.6%	4,845
Bay County School District, FL	21.1%	2.7	61.8%	\$51,234	12.6%	7.2%	25,540
Bradford County School District, FL	9.2%	2.3	68.5%	\$48,720	22.0%	1.6%	3,800
Brevard County School District, FL	26.3%	2.9	62.7%	\$56,900	14.4%	12.6%	71,225
Broward County School District, FL	29.9%	2.9	58.1%	\$54,959	36.7%	29.3%	262,800
Calhoun County School District, FL	7.8%	2.2	58.0%	\$38,269	12.6%	9.9%	2,175
Charlotte County School District, FL	21.2%	2.7	59.2%	\$49,223	7.7%	12.8%	16,075
Citrus County School District, FL	16.6%	2.6	57.9%	\$41,722	4.9%	8.7%	15,525
Clay County School District, FL	24.0%	2.8	68.7%	\$67,640	12.5%	10.8%	35,705
Collier County School District, FL	31.7%	2.9	62.4%	\$49,431	11.7%	44.2%	41,815
Columbia County School District, FL	13.3%	2.5	57.5%	\$44,104	20.8%	6.4%	10,235
Dade County School District, FL	26.3%	2.6	56.1%	\$42,854	24.2%	61.2%	355,270
DeSoto County School District, FL	10.6%	2.2	53.7%	\$35,188	15.0%	41.4%	5,490
Dixie County School District, FL	8.4%	2.3	68.7%	\$51,623	8.2%	1.5%	2,315
Duval County School District, FL	26.4%	2.8	54.3%	\$49,339	40.8%	10.3%	126,010
Escambia County School District, FL	23.7%	2.8	54.0%	\$43,750	32.5%	6.0%	41,490
Flagler County School District, FL	23.3%	2.8	67.2%	\$48,204	15.4%	13.9%	13,280
Franklin County School District, FL	14.4%	2.4	59.8%	\$47,941	11.4%	2.4%	1,445
Gadsden County School District, FL	14.9%	2.4	44.6%	\$30,360	71.7%	15.6%	7,520
Gilchrist County School District, FL	11.1%	2.4	75.7%	\$50,804	9.1%	7.6%	2,685
Glades County School District, FL	12.2%	2.3	50.9%	\$30,545	7.0%	41.7%	1,570
Gulf County School District, FL	13.6%	2.4	52.3%	\$39,981	9.8%	3.5%	1,840
Hamilton County School District, FL	9.4%	2.2	48.6%	\$41,250	43.9%	12.5%	1,925
Hardee County School District, FL	8.8%	2.0	57.8%	\$33,311	6.6%	55.8%	5,260
Hendry County School District, FL	9.9%	2.1	55.3%	\$33,634	11.5%	60.7%	7,680
Hernando County School District, FL	15.5%	2.6	63.0%	\$45,522	6.7%	16.2%	24,310
Highlands County School District, FL	14.9%	2.5	60.0%	\$39,979	16.1%	31.4%	12,395
Hillsborough County School District, FL	29.5%	2.9	58.4%	\$52,325	21.5%	32.0%	201,670
Holmes County School District, FL	12.0%	2.3	71.7%	\$55,045	0.9%	0.7%	2,820
Indian River County School District, FL	26.6%	2.8	60.1%	\$45,288	15.0%	20.4%	18,290
Jackson County School District, FL	14.2%	2.4	62.9%	\$42,447	28.7%	5.4%	6,230
Jefferson County School District, FL	16.9%	2.5	54.0%	\$44,400	57.1%	3.4%	1,620
Lafayette County School District, FL	9.3%	2.3	80.9%	\$62,632	11.2%	18.9%	1,295
Lake County School District, FL	20.5%	2.7	67.1%	\$53,282	13.8%	21.2%	41,500
Lee County School District, FL	24.7%	2.8	60.2%	\$44,102	14.1%	31.2%	86,140
Leon County School District, FL	44.2%	3.3	55.9%	\$57,070	40.6%	5.8%	35,405
Levy County School District, FL	11.1%	2.4	59.5%	\$38,547	16.1%	9.6%	6,230
Liberty County School District, FL	12.8%	2.3	59.7%	\$49,844	7.0%	12.0%	1,500
Madison County School District, FL	9.7%	2.3	53.8%	\$36,314	42.4%	5.8%	2,770
Manatee County School District, FL	26.6%	2.8	61.7%	\$50,822	14.7%	27.0%	45,105
Marion County School District, FL	17.4%	2.6	55.4%	\$40,663	20.4%	19.2%	43,410

TABLE A2 - CONTINUED
DEMOGRAPHIC PROFILE OF FLORIDA COUNTIES

NAME OF COUNTY / DISTRICT	% COLLEGE GRADS	ADULT ED SCALE	% MCPF	INCOME	% BLACK	% HISPANIC	ENROLLMENT
Martin County School District, FL	29.9%	2.9	67.4%	\$62,282	7.2%	25.9%	17,120
Monroe County School District, FL	28.0%	2.9	62.5%	\$53,469	9.7%	32.9%	7,910
Nassau County School District, FL	22.8%	2.7	67.4%	\$53,270	7.8%	4.5%	11,005
Okaloosa County School District, FL	27.4%	2.9	63.7%	\$60,664	10.1%	10.0%	27,845
Okeechobee County School District, FL	10.2%	2.2	53.4%	\$35,213	10.1%	36.6%	6,715
Orange County School District, FL	30.1%	2.9	57.8%	\$48,055	25.4%	35.3%	181,185
Osceola County School District, FL	17.6%	2.6	61.8%	\$42,588	11.6%	54.4%	52,115
Palm Beach County School District, FL	32.4%	2.9	59.3%	\$54,519	27.6%	27.6%	181,010
Pasco County School District, FL	20.4%	2.7	65.7%	\$58,492	5.7%	19.8%	66,900
Pinellas County School District, FL	27.5%	2.8	55.7%	\$53,296	18.5%	13.9%	107,560
Polk County School District, FL	18.1%	2.5	59.5%	\$43,603	21.1%	27.1%	98,385
Putnam County School District, FL	11.4%	2.3	48.8%	\$32,530	25.5%	15.6%	11,430
Santa Rosa County School District, FL	25.9%	2.9	73.0%	\$64,692	5.0%	6.1%	26,015
Sarasota County School District, FL	30.8%	3.0	61.4%	\$56,428	8.5%	15.7%	42,240
Seminole County School District, FL	35.0%	3.1	64.0%	\$64,544	14.0%	23.3%	67,385
St. Johns County School District, FL	41.4%	3.2	73.6%	\$83,567	6.8%	7.8%	30,750
St. Lucie County School District, FL	19.5%	2.6	55.5%	\$41,918	26.7%	26.2%	43,795
Sumter County School District, FL	25.2%	2.8	59.8%	\$43,826	17.0%	13.0%	5,855
Suwannee County School District, FL	9.8%	2.3	59.0%	\$41,776	12.7%	14.0%	6,520
Taylor County School District, FL	11.6%	2.3	49.3%	\$43,401	25.8%	0.0%	2,795
Union County School District, FL	10.0%	2.2	66.2%	\$47,157	14.9%	8.3%	2,175
Volusia County School District, FL	20.8%	2.7	59.4%	\$48,069	15.2%	20.0%	63,785
Wakulla County School District, FL	17.2%	2.6	61.3%	\$59,073	15.1%	1.2%	5,255
Walton County School District, FL	24.1%	2.7	61.1%	\$44,009	5.2%	9.1%	8,215
Washington County School District, FL	11.4%	2.4	67.4%	\$40,729	16.5%	4.7%	3,580

NOTES: % College Grads = % of adults aged 25 and over in county with bachelor's degree or more education, 2009-13.
 % MCPF = % of families with children enrolled in public schools in county that were married-parent families, 2009-13.
 INCOME = Median family income of families with children enrolled in public schools in county, 2009-13.
 % BLACK = % of children enrolled in public schools in county who were African-American, 2009-13.
 % HISPANIC = % of children enrolled in public schools in county who were Hispanic, 2009-13.
 ENROLLMENT = Total public school enrollment in county, 2009-13.
 SOURCE: Authors' analysis of data from U.S. Census Bureau's American Community Survey and National Center for Education Statistics.
 Including Tables DP02.7, CDP03.2, & CDP05.3

TABLE A3

REGRESSION ANALYSIS FOR FLORIDA COUNTY GRADUATES

INDEPENDENT VARIABLES	FULL MODEL	REDUCED MODEL
Adult Education Level	0.12**	0.12***
% Married - Couple Families	0.45*	.44**
Median Family Income	-0.00 ns	omitted
% Black Students	-0.18**	-.18**
% Hispanic Students	.00 ns	omitted
Constant	0.18 ns	.19*
F =	16.8***	29.0***
Degrees of Freedom	5, 61	3, 63
R-Squared	0.58	0.58
R =	0.76	0.76
N =	67	67
DEPENDENT VARIABLE	MEAN	STD. DEVIATION
Average Graduation Rate	72.8%	7.9%
INDEPENDENT VARIABLE	MEAN	CODING
Adult Education Level	2.6	1-5
% Married - Couple Families	60.5%	0-100%
Median Family Income	48,135	Dollars
% Black Students	17.9%	0-100%
% Hispanic Students	18.0%	0-100%

TABLE A4

REGRESSION ANALYSIS FOR ANNUAL GAIN IN COUNTY GRADUATION RATE

INDEPENDENT VARIABLES	COEFFICIENTS	BETA
Initial Graduation Rate	-0.16***	-.70***
% Married - Couple Families	0.14***	.45***
Constant	0.047*	
F =	20.8*	
Degrees of Freedom	2, 64	
R-Squared	0.39	
R =	0.63	
N =	67	
DEPENDENT VARIABLE	MEAN	STD. DEVIATION
Average Graduation Rate	2.0%	2.05
INDEPENDENT VARIABLE	MEAN	CODING
Initial Graduation Rate	68.9%	0-100%
% Married - Couple Families	60.5%	0-100%

TABLE A5

REGRESSION ANALYSIS FOR COUNTY SUSPENSION RATES

INDEPENDENT VARIABLES	FULL MODEL	REDUCED MODEL
% College Graduates	-25.6+	-22.6**
% Married - Couple Families	-44.8*	-34.9**
Median Family Income	0.00006 ns	omitted
% Black Students	-3.9ns	omitted
% Hispanic Students	-12.0*	-12.1*
Constant	47.6***	43.4***
F =	4.83***	8.11***
Degrees of Freedom	5, 61	3, 63
R-Squared	0.28	0.28
R =	0.53	0.53
N =	67	67
DEPENDENT VARIABLE	MEAN	STD. DEVIATION
Suspension Rate	15.6	13.7
INDEPENDENT VARIABLE	MEAN	CODING
% College Graduates	19.8%	0-100%
% Married - Couple Families	60.5%	0-100%
Median Family Income	48,135	Dollars
% Black Students	17.9%	0-100%
% Hispanic Students	18.0%	0-100%

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W. Bradford Wilcox is director of the National Marriage Project at the University of Virginia and a senior fellow of the Institute for Family Studies. His research focuses on marriage, family structure, child well-being, fatherhood, and religion. A sociologist, he is the author and co-author of four books and numerous articles, including *Gender and Parenthood: Biological and Social Scientific Perspectives*. He has held fellowships at the Brookings Institution and Yale University. He received his doctorate from Princeton University.

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