

# Macro-Economic Labor Conditions and Latino Students: How Unemployment Changes Affect Dropout Rates

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## **Introduction**

The Latino dropout problem is of serious concern for education officials across the United States. Although solving the *overall* dropout problem is important to scholars and practitioners, the rapidly increasing Latino population coupled with the growing gap between Latino and overall dropout rates, makes implementing good policy critical to producing equal educational opportunities for this group. In order to implement policies that will effectively combat the Latino dropout problem, scholars must first identify them, a task that has thus far escaped capable analysis.

This paper focuses on the role of macro-economic conditions in the dropout process. Admittedly, these conditions are likely beyond the reach of school and district officials to manipulate, however it is critical to account for all factors that contribute to the Latino dropout phenomenon in order to fully understand how to combat it. We are interested in finding out if Latinos leave school prematurely for different reasons than other groups. If the evidence suggests they do, we gain leverage towards helping practitioners close the dropout gap between Latinos and students of other ethnic and racial backgrounds. To this end, I ask two main questions in the paper. First, to what extent does the district's labor market affect the Latino dropout rate? Second, do Latinos react to labor market variation, in the form of dropping out of school, differently than students of other racial groups?

If the dropout rates of Anglos, Blacks, Latinos and other groups were of the same magnitude, we would not study the "Latino" dropout problem, rather, we would most likely be interested in the "overall" dropout problem. Because this is not the case (in the sample studied

here, the Latino dropout rate is almost double that of Anglos),<sup>1</sup> we are particularly interested in evidence that identifies where the “dropout gap” is coming from. In this paper, it is demonstrated how one piece of the puzzle disproportionately affects Latinos, not only casting light on the Latino dropout problem in general, but also illustrating the correct method for looking at the relationship between macro-economic conditions and Latino dropout rates in the future.

### **Why Should Macro-Economic Conditions Matter?**

It is fairly easy to explain why students (of any race) might leave school when economic conditions change. One suggestion is that, all else equal, large-scale unemployment leaves a student with no alternative but to stay in school; if jobs are scarce, the student simply attends class and waits until employment opportunities become available. This theoretical perspective has the most supporting evidence (Duncan 1965, Rees and Mocan 1997; Rivkin 1995), but it has not yet been determined if Latino students differ from students of other groups in this regard.

Alternatively, one could hypothesize that, all else equal, high unemployment would force many students *out* of school in order to contribute to the household income. If times are hard, many children may be asked to quit school (at least temporarily) to help out-of-work parents. But why would Latinos react differently than Blacks and Anglos in this regard? Rumberger argues that Latinos (specifically males) may choose to leave school when the economy weakens because they have familial responsibilities that teens from other groups do not (1983, 201). He

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<sup>1</sup> In fact, Latinos have a statistically significant higher dropout rate (1.44) than both Anglos (.78) and Blacks (1.23) in the state of Texas over the last five years.  $p \geq .95$

presents survey results from the NLS that appear to back up this claim; 13% of Latino male dropouts cite "home responsibilities" as their reason for leaving school (compared with 4% for Blacks and Anglos). Because of these differential responsibilities, Latinos may leave school to get a job when unemployment increases so that they can supplement the family income.

There is an empirical problem, however, when one attempts to measure whether Latinos *behave* differently than other groups in this respect. Again, if Latinos, Blacks, and Anglos react to labor market conditions in the same way, it would be difficult to argue that macro-economic conditions contribute to the dropout *gap*. Scholars try to measure these differences in a variety of ways, but the evidence is frustratingly sparse and mixed. It is necessary then, to not only grapple with the Latino dropout question, but also to contribute to the *method* by which this particular problem is studied. If we cannot contribute evidence to the debate, perhaps we can at least contribute to the research design problem; a problem that appears to be primary to evidentiary concerns.

Rees and Mocan (1997) give good reasons to doubt the validity of some of the early findings in the literature. One problem has to do with model under-specification, while the other pertains to the level of analysis. They explain that under-specification plagues most models of dropout behavior because scholars do not account for school district policy inputs. For example, if one does not account for school district quality (how good the district is at producing education), a variable like district unemployment could simply be substituting for these characteristics. More clearly, we would expect that districts experiencing high unemployment rates would also be districts with more difficult education problems (lower quality student inputs, a less skilled teaching force etc.). In this case, if one finds a positive relationship between

unemployment and dropout rates, it would most likely be spurious. Instead, Rees and Mocan try to control for these school quality factors by using indicators of teacher quality, experience, and pay (1997, 107). They find a strong and significant negative relationship between county unemployment rates and district dropout rates. Further, they find differences between Latino and Black inputs<sup>2</sup> in this context. Their analysis is the most thorough macro-economic study done to date, and in the next section it is shown how it can be improved. First, however it is necessary to review the second problem: level of analysis.

Many of the studies on dropout behavior are at the individual level, since this is the level where the decision to leave school is made (Ensminger and Slusarcick 1992; Jasinski 2000; Velez 1989). These types of studies account for individual characteristics like familial poverty and other demographic traits in order to predict the likelihood of dropping out. While this method is completely appropriate in some contexts, if one is interested in where education policy is made and implemented, then the district or school level is more pertinent. At the individual level of analysis it is difficult to examine the efforts of educators because they are sidelined by individual factors. Individual level studies are concerned with what the student brings to the process, while school and district level analyses are more concerned with what policies work to confront the problem.

In addition to this, the district level is the most appropriate level of analysis when one is considering macro-economic effects because employment opportunities do not vary for students or schools to the degree that they do across districts. If one is trying to explain why some

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<sup>2</sup>Rees and Mocan find different impacts from Black and Latino unemployment rates, but they do not examine whether this has differential behavioral effects, because they do not look at Black and Latino dropout rates separately; in this study we do.

students drop out and others do not, it must first be shown that each group faces variable employment opportunities. This is not solely a data problem (although county level data do limit the unemployment variation across districts); it is foremost a theoretical question of how students make decisions. The analysis must match the theory, and in questions of macro-economic effects, the appropriate level of analysis is the district.

### **What Would a Good Study Look Like?**

Rees and Mocan look at dropout variation in New York school districts and find that after controlling for previously omitted variables, unemployment has uneven impacts on Latinos and Blacks (1997, p. 107 column 3). They show that Black unemployment has a positive relationship with dropout behavior and Latino unemployment shares a negative relationship. Rivkin (1995) however reveals a negative relationship for Blacks, and Duncan finds a negative overall relationship for all students (1965). This conflicting evidence is at the heart of the present inquiry.

We focus on the Rees and Mocan study because it is done with similar questions in mind, and because it is done well. They analyze panel data of school districts across nine years in order to control for potential factors the other studies leave out. The models include measures of teacher quality, student and family inputs (race and welfare measures), and measures of education “quality” (e.g. mean class size). Their evidence is stimulating in that they find little evidence of district policy effects, but significant unemployment effects. What is most interesting is that the district policy variables are responsible for the sign of the unemployment coefficient. When district factors are controlled, the sign is negative, when they are not it is

positive; both are significant. It is a well-made case for specifying the correct model.

Unfortunately, their results offer little substantive help for policymakers. The only quality measure that has a consistent impact on dropout rates is the percentage of high school teachers with less than a master's degree; other teacher quality measures have no impact. We believe this is because Rees and Mocan's models are still under-specified. Their "fix" for this under-specification is a model of ignorance (dummy variables for each district). The proxy adjustment presumably keeps the unemployment rate from standing in for another (unmeasured) variable, but it does not say anything about what is causing cross-district quality variation, and thus it tells us nothing about possible policy prescriptions (in fact, like good economists, the authors side with those who claim that district policies have little impact on outputs, p. 107). Again, the method does not damage the examination of unemployment effects (their case is solid on this point), and in a particular context their methodological fix is appropriate. Instead, we argue that better measures of district quality exist (ones with policy implications), and that a different measure of unemployment can tell us more about the causal process. Lastly, it is important to note that Rees and Mocan look at the *overall* dropout rate in the district, and that this does say much about the *differences* between groups.

### **Testing for Unemployment Effects**

We employ two solutions to the problems discussed above in order to test hypotheses about differential dropout effects in a way that is consistent with the theory. Foremost, we use four indicators of district quality to measure the extent to which the district produces a good education, and each of them has policy implications: the graduation rate of Anglos, the district

pass rate on a high stakes test, the pupil/teacher ratio, and the percent of instructional expenditures for bilingual education. The Anglo graduation rate is a proxy measure of how well the district produces one of its primary outputs, graduates. A better measure of this factor would be the overall (or even the Latino) graduation rate, but because this is mathematically linked to the Latino dropout rate, the Anglo rate serves as a good substitute. Good districts will have higher graduation rates, so controlling for this rate purges the unemployment variable of some of its problems as a stand-in for district quality.

The high stakes test pass-rate controls for a second school district output: knowledge. Districts that produce more knowledgeable students should have fewer dropout problems all else equal. Similar to the graduation rate, this measure helps purify the unemployment variable by controlling for the amount of “district quality” variation. The student/teacher ratio and the percent bilingual expenditure measures also control for district quality, and are both policy relevant. Better districts have lower student/teacher ratios (either from parent demand or resource availability, or both), and percent bilingual expenditure, all else equal, is a direct indicator of how serious a district is about combating one of the major causes of Latino success in school: limited English proficiency. Only one education quality control (average class size) is used in Rees and Mocan’s study, contributing to the mis-specification of their model.

The second major difference between the present study and others is that we employ a more theoretically consistent measure of macro-economic conditions than the yearly unemployment average. It is unlikely that a potential school-leaver simply surveys the general economic landscape when contemplating dropping out; rather we think the process is more dynamic. To capture this we use the change in the county unemployment rate from the previous

summer to the present summer. The resulting measure is an indicator of improvement or decline in employment opportunities in the district. It gives us a better look at whether jobs are being created or are disappearing in a county, an effect that is more consistent with the calculus of school leaving. The month of June is used because it is the month where many students find (or do not find) summer work that could potentially force the decision to leave school early. While the measure is not perfect, it is an improvement over the standard yearly unemployment measure. Both will compete in the analysis to test for macro-economic effects.

The remaining controls are displayed in Appendix A, and include both student and family inputs (percent Latino and Black students, amount of state aid per pupil), teacher quality measures (teacher experience, average salary etc.), and school and district factors (enrollment and district tax rate). Lastly, two dependent variables are key to testing for effects across groups. Instead of looking at the overall dropout rate, which includes Anglo students and can mask the gap between Anglos, Blacks and Latinos, Latinos and Blacks are analyzed separately using the dropout rate for each group.

## **Data and Analysis**

We examine every school district in Texas with more than twenty-five Latino students.<sup>3</sup> This removes most charter schools and small districts from the analysis, and eliminates small number contamination (if the district has only five Latinos, and two drop out, the Latino dropout rate will look inordinately large). The data are from the Texas Education Agency (TEA), and cover 678 school districts over five school years, 1997-98 through 2001-02, yielding 2,216

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<sup>3</sup> Enrollment > 500 and % Latino > 5. The analysis of Black dropouts uses the same criteria for Blacks.

usable observations for the Latino analysis and 1,666 usable observations for the analysis of Black students.<sup>4</sup> The monthly unemployment data are from the Texas Workforce Commission and are at the county level. The unemployment change-data for the month of June (for ex. June 1997 minus June 1996) are prior to the corresponding school year dropout measure (1997-1998), preserving the causal chain.

Appendix A presents the summary statistics for each variable, but it is important here to note a few data limitations. The most pressing problem is the severe underestimation of the dropout rate for each group. Texas does not count many “school leavers” as dropouts, even though most objective dropout measures would include some of these students. For instance, Texas excludes students who say they are leaving school in order to get a GED. In the average district, 5% of the Hispanic students leave early for this reason (standard deviation of 7%), yet the state claims that the district has not failed in its duty to produce a highschool diploma for these children. Jay Greene and Marcus Winters note how this particular coding practice (used by many states) severely hinders dropout analyses (Greene and Marcus 2002).

To get a better picture of this data problem we can look at the inverse of the Latino graduation rate (100 minus the rate). This number is the percentage of Latino 12<sup>th</sup> graders who are *not* graduating from high school each year (for whatever reason). In the sample, the mean value of these non-graduates is 25% for Latinos compared to 20% for Blacks and 14% for Anglos. In light of these numbers, the average dropout rates for Latinos (1.44%), Blacks (1.23%), and Anglos (.78%) look very suspicious. The TEA admits to this problem and is in the midst of reviewing their reporting policy, but as long as the method does not disproportionately

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<sup>4</sup> The data were also trimmed by less than a hundred observations in order to balance the panel

bias Latinos, the data are fine for the purposes of this analysis.<sup>5</sup>

A secondary problem (but one that is shared by all studies of this kind) is that the unemployment data are at the county level. It would be preferable to have district unemployment data in order to capture the real amount of cross-district variation, but since this is not possible, the county level data suffice. It is important to remember however, that this biases the analysis *against* finding macro-economic effects (counties include anywhere from 1 to 20 school districts). Also, unlike the Rees and Mocan study, we do not have data for Black and Latino unemployment separately. Future work in this area would benefit from these data.

The models are tested using fixed effects.<sup>6</sup> In the first analyses, only years were fixed because we are interested in explaining cross-district variation (not simply controlling for it). As we are not specifically interested in the size of the coefficients or the amount of explained variance, I will contain the interpretation to the signs of each relationship, and their significance.<sup>7</sup> Table 1 displays the results of the first two estimations; the first column ignores unemployment change in order to compare models. Here, only the graduation rate and percent bilingual expenditure reach acceptable levels of statistical significance, each in the hypothesized direction. As the number of graduates increases, the percentage of Latino dropouts decreases. Similarly, as

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<sup>5</sup> Because we are not interested in the magnitudes of the coefficients or the amount of explained variance per se, the data can be under-reported as long as they are not biased.

<sup>6</sup> Random effects models were analyzed first, and Hausman tests confirmed that fixed effects models were more appropriate. Heteroskedasticity was observed in graphs of the residuals, so robust standard errors are reported.

<sup>7</sup> We are not interested in the size of the coefficients here because we are asking questions about differences across groups, and whether or not the effect is in the hypothesized direction. Plus, the data are limited (discussed in a previous section) which makes substantive coefficient interpretation quite fruitless for policymakers. We are not generally interested in the size of the R squared for the same reasons. If we wanted to simply predict dropout rates, we would need one variable: the Latino graduation rate.

the amount of instructional budget devoted to bilingual education increases, the rate of Latino attrition decreases. This is important because it suggests that a district policy specifically tailored to help reduce Latino dropouts (bilingual education) is working. Also in the first model, the yearly unemployment rate has no affect on Latino dropout behavior, and within the sample it is positively related to Latino dropouts. As we move to the second model, we see that all else equal, the change in employment opportunities from one summer to the next has a significant impact on the Latino dropout rate. As the changes in unemployment from one year to the next become larger (a shrinking labor market), Latino students decide to stay in school. Conversely, as the changes get smaller (more jobs become available in the present year than in the last year), Latino students decide to leave school for work. This evidence is important in light of the control for the overall unemployment rate (which is still insignificant and positive). It suggests that students respond to *changes* in macro-economic conditions, rather than the *overall* economic environment.

Table 2 profiles the same model for Blacks. While it is difficult to make conclusive statements about the differences across the two samples, the findings are convincingly suggestive. Here, neither the overall unemployment rate nor the change in unemployment has an effect on Black dropout behavior. Instead, it appears as though teacher characteristics and graduate production drives the process. Teacher salary is in the expected direction, as higher pay (possibly an indicator of teacher quality) is negatively related to the dropout rate for Blacks, while average teacher experience in these districts is positively related to dropouts, a result that cannot be easily explained. More important to the present study however, is that Blacks and Latinos appear to behave differently when faced with the same macro-economic conditions;

Latinos are responsive while Blacks are not.

In order to test Rees and Mocan's claim that cross-district variation must be accounted for in these models, a fourth model was tested using fixed effects for districts as well as years. This is the "kitchen sink" model, because dummy variables for each district soak up almost all of the available dropout variation. Rees and Mocan get different results when they run this type of model because they do not correctly account for district education quality. Because we do account for quality factors, we do not expect to see different results from the previous tables (except in the amount of explained variation of course). Table 3 displays the results of this test.

As expected, the model explains almost 41% of the dropout variation, but the coefficients are more interesting to the current question. Similar to the first three models, graduation rates (and in this case, test scores) are significant predictors of Latino attrition, although TAAS rates continue to show a positive effect. Consistent with the previous analysis, the change in unemployment is significantly and negatively related to the dropout rate, however the overall unemployment rate is positive and (almost) significant. This is an interesting finding that seems to support the idea that Latino students use *changes* in the macro-economy to make decisions about leaving school, but it also suggests that these students may respond to the overall state of the economy as well (and in a contradictory manner). Using Rees and Mocan's suggested model of ignorance leads one to accept the possibility that both theoretical explanations for Latino reactions to the macro-system may be correct. More important to the present research question, however, is the consistency of unemployment *change* effects in the models. Its sign and significance never waver, and its differential impact on Latinos, compared with Blacks, is compelling in that it could provide future leverage on the dropout gap between groups.

## **Conclusions**

This paper presents a new way to look at a small, but significant, part of the Latino dropout problem. Evidence from previous studies suggests that Latino students behave differently from children of other racial and ethnic groups because of different familial responsibilities. Because of this, when faced with a changing macro-economic environment, Latino students may make decisions to stay or leave school that differ from those of Anglo and Black students. The research questions driving the analyses are: How do growing or shrinking job opportunities affect the Latino dropout rate? And secondly, do Latino and Black students show different dropout patterns due to these macro-economic factors? Two contradictory, but plausible, theories are presented, and Texas school district data from the years 1997-2001 are used to examine the question empirically.

The results suggest differences in behavior between Blacks and Latinos. Latinos stay in school when summer employment opportunities disappear, and leave school at higher rates when these opportunities increase from summer to summer. Black students do not seem to respond to changes in employment opportunities in the way that Latinos students do; neither the unemployment rate, nor the change in summer employment affect the Black dropout rate.

Using a more theoretically satisfying model opens up more questions, rather than conclusively explaining Latino behavior. Unlike past studies, this analysis accounts for district policy factors, which is critical to making policy recommendations. Instead of simply controlling for district characteristics in a model of ignorance, we examine the impact of each factor. Also the design is an improvement over past studies, because we are looking at actual dropout

behaviors (not responses to surveys), and we look at differences across groups in the dependent variable, something other studies fail to do.

The study contributes to the explanation of Latino dropout behavior on a number of levels. First, the results for summer unemployment changes are robust across Latino models, suggesting that this measure is an important factor in the decision calculus of potential Latino dropouts. Second, models of ignorance are appropriate (and probably preferable, seeing how the results were altered here) if one is trying to examine macro-change effects alone, and is not interested in district policy. But, if scholars want to make policy statements that may help the district lower their dropout rate, and understand the macro-environment's contribution, one cannot solely rely on these fully fixed models. Given that the nature of the phenomenon studied here (macro-economic effects) is outside the control of the school district, we offer no policy prescriptions. Rather, the main conclusion is that scholars interested in the economy's role in the dropout process should pay close attention to economic *changes* from one year to the next, and to differences across racial groups in their reaction to these changes. Controlling for these effects when modeling Latino dropout behavior is crucial to understanding the full impact of other variables under district jurisdiction

## Citations

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**Table 1: Predicting the Latino Dropout Rate, 1997-2001**

<b>Dependent Variable:</b>	<b>Latino Dropout Rate<sup>8</sup></b>	<b>Latino Dropout Rate</b>
<b>Independent Variables:</b>		
White Graduation Rate	-.053 (.010)**	-.052 (.010)**
Unemployment Rate	.021 (.023)	.024 (.023)
Change in June Unempl.		-.081 (.035)*
TAAS Pass Rate	.006 (.009)	.007 (.009)
State Aid / pupil (in thousands)	.02 (.03)	.02 (.03)
% Latino Students	.001 (.002)	.00 (.002)
% Black Students	-.005 (.004)	-.005 (.004)
% Bilingual Expenditure	-.038 (.018)*	-.037 (.018)*
Student / Teacher Ratio	.036 (.029)	.035 (.029)
Tax Rate	.109 (.190)	.123 (.189)
Enrollment (in thousands)	.0014 (.0026)	.0014 (.0026)
Avg. Teacher Salary (ten thous.)	.008 (.23)	.0034 (.23)
Avg. Teacher Experience	.025 (.025)	.021 (.025)
Constant	4.35 (1.38)**	4.26 (1.38)**
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N	2216	2216
R squared	.093	.095
Adjusted R squared	.087	.088
F statistic	2.87	2.93
Prob > F	.001	.000

<sup>8</sup> Fixed effects models using year dummies. Robust standard errors in parentheses. Models estimated using STATA 7. \* significant at the .05 level, \*\* significant at the .01 level.

**Table 2: Predicting the Black Dropout Rate, 1997-2001**

<b>Dependent Variables:</b>	<b>Black Dropout Rate<sup>9</sup></b>
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<b>Independent Variables:</b>	
White Graduation Rate	-.062 (.019)**
Yearly Unemployment Rate	-.002 (.019)
Change in June Unempl.	-.006 (.053)
TAAS Pass Rate	.005 (.012)
State Aid / pupil (in thousands)	.09 (.05)
% Latino Students	.001 (.003)
% Black Students	-.007 (.005)
Student / Teacher Ratio	-.030 (.037)
Tax Rate	.235 (.168)
Enrollment (in thousands)	.0008 (.0024)
Avg. Teacher Salary (ten thous.)	-.993 (.32)**
Avg. Teacher Experience	.086 (.032)**
Constant	8.05 (1.96)**
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N	1666
R squared	.088
Adjusted R squared	.079
F statistic	2.07
Prob > F	.016

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<sup>9</sup> Fixed effects model using year dummies. Robust standard errors in parentheses. Models estimated using STATA 7. \* significant at the .05 level, \*\* significant at the .01 level.

**Table 3: Predicting the Latino Dropout Rate: Fixed Effects Model <sup>10</sup>**

<b>Dependent Variable:</b>	<b>Latino Dropout Rate</b>
<b>Independent Variables:</b>	
White Graduation Rate	-.036 (.010)**
Unemployment Rate	.154 (.080)~*
Change in June Unempl.	-.119 (.050)*
TAAS Pass Rate	.045 (.016)**
State Aid / pupil (in thousands)	.11 (.1 )
% Latino Students	.001 (.038)
% Black Students	-.018 (.043)
% Bilingual Expenditure	-.181 (.138)
Student / Teacher Ratio	.081 (.116)
Tax Rate	-.302 (.60)
Enrollment (in thousands)	.029 (.122)
Avg. Teacher Salary (ten thous.)	.36 (.64)
Avg. Teacher Experience	.070 (.078)
<hr/>	
N	2216
R squared:	.409
Adjusted R squared	.211
F statistic	2.37
Prob > F	.001

<sup>10</sup> Fixed effects model (on districts) using year dummies. Robust standard errors in parentheses. Models estimated using STATA 7. ~\* sig. at .10 level \* sig. at the .05 level, \*\* significant at the .01 level.

## Appendix A: Summary Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
Latino Dropout Rate	2485	1.485553	2.559438	0	30
Black Dropout Rate	1757	1.217245	2.770834	0	50
Avg. Yearly County Unemp.	2813	5.167899	3.356808	1.1	33.3
Change in June Unemp.	2813	-.2092073	1.21734	-8	9.4
Anglo Grad. Rate	2305	86.07145	12.89587	0	100
TAAS Pass Rate	2809	82.12784	8.482233	7.7	99
State Aid	2809	3100.77	1516.759	248	8676
Percent Latino Students	2809	35.12033	27.42918	6	100
Percent Black Students	2809	9.459238	12.71137	0	84
Enrollment	2809	6553.936	15217.22	500	210988
Average Teacher Salary	2808	35323.22	2946.275	25416	47702
Average Teacher Exp.	2809	12.12663	1.977122	.2	19.1
Percent Bilingual Expend	2808	1.988248	2.978525	0	33
Student/Teacher Ratio	2809	13.80751	1.756736	8.9	24.4
Tax Rate	2809	1.47696	.2019052	0	1.97

## Appendix B: Correlations Between Variables Within the Sample

	drophis	dropblk	rate	sum_un~1	gradwht	allpass	staid	phis	pblk	enroll	teach_~1
Latino Dropout Rate	1.0000										
Black Dropout Rate	0.4030	1.0000									
Unemployment Rate	0.0029	0.0025	1.0000								
Summer Unemp.Change	-0.0725	-0.0146	-0.0037	1.0000							
Anglo Grad. Rate	-0.3492	-0.2780	-0.0280	0.0217	1.0000						
TAAS Pass Rate	0.0041	0.0096	-0.3602	0.0895	0.0487	1.0000					
Percent State Aid	-0.0008	-0.0432	0.1126	-0.0899	0.0177	-0.2011	1.0000				
Percent Latino Stud.	0.0039	-0.0039	0.5326	-0.1492	-0.0110	-0.4082	0.2746	1.0000			
Percent Black Stud.	-0.0290	-0.0188	-0.0834	0.0420	-0.0775	-0.2963	-0.1184	-0.2804	1.0000		
Enrollment	0.0021	-0.0003	-0.0101	0.0124	-0.0508	-0.0534	-0.1839	0.0910	0.1605	1.0000	
Avg. Teacher Salary	0.0051	-0.0308	-0.0167	0.0142	-0.0342	0.2722	-0.1346	0.1091	0.0779	0.2510	1.0000
Avg. Teacher Exper.	0.0191	0.0288	-0.0014	-0.0599	0.0048	0.1842	-0.1176	-0.0197	0.0563	-0.0614	0.3771
% Bilingual Expend.	-0.0477	-0.0566	0.1818	-0.0194	0.0180	-0.2422	-0.0592	0.3527	0.0155	0.3347	0.1600
Stud/Teach Ratio	0.0372	0.0217	0.1323	0.0166	-0.0884	-0.1811	-0.2134	0.0334	0.1665	0.3803	0.1013
Tax Rate	0.0066	0.0380	-0.0262	0.0198	-0.0606	-0.0132	-0.0620	0.0088	0.0003	0.1698	0.0205
	tea_exp	pexp_bil	pup_te~t	tax_rat							
Avg. Teacher Exper	1.0000										
% Bilingual Expend.	-0.1201	1.0000									
Stud/Teach Ratio	-0.1876	0.2199	1.0000								
Tax Rate	-0.1710	0.1085	0.2494	1.0000							