

Analysis of K-12 Teacher Demand and Supply in Pennsylvania

Needs Statement: Researchers and policymakers widely recognize teachers are the single most important in-school factor influencing a variety of student academic and non-academic outcomes (Kyriakides & Creemers, 2008; Nye, Konstantopoulos, & Hedges, 2004). Indeed, well-prepared, experienced, and effective teachers are critical to ensuring students are prepared for life after high school (Chetty, Friedman, & Rockoff, 2011). In addition to postsecondary attainment and transitions, quality teachers can improve student socio-emotional ability and resiliency well after primary education, and, moreover, offset several factors associated with disadvantaged backgrounds (Murray, & Pianta, 2007; Wang, Brinkworth, & Eccles, 2012). Not all students, however, have access to such teachers.

A growing body of research has demonstrated that students most in need of high-quality instruction are the least likely to have access to a well-prepared and effective teachers (Clotfelter, Ladd, & Vigdor, 2005; Lankford, Loeb, & Wyckoff, 2002). For example, students of color in low-income schools are between 3 and 10 times more likely to have uncertified, underprepared, or out-of-field teachers than White students in affluent schools (Darling-Hammond, 2010). Efforts to address the issue, including alternative pathways, bonus pay, and training subsidies, have met with mixed results (Adamson & Darling-Hammond, 2012; Simon & Johnson, 2015).

The lack of access to well-qualified teachers influenced by the shortage of teachers in particular schools and subject areas that are, in turn, influenced by systematic variation in applicant preferences, hiring practices, mobility, and attrition (Simon & Johnson, 2015). Even prior to the recent decline in the production of teachers across the nation and in Pennsylvania, there have been persistent shortages of certified STEM and special education teachers across all schools (Boe & Cook, 2006; Simon & Johnson, 2015). Such shortages have been exacerbated in high-poverty schools by high rates of teacher attrition and in rural schools by difficulty in attracting applicants for rural schools (Goldhaber, Lavery, & Theobald, 2015; Monk, 2007; Sutchter, Darling-Hammond, & Carver-Thomas, 2016). Further, research has found rural schools have difficulty in attracting applicants because lower funding levels leads to lower pay—a clear obstacle to luring applicants to vacant positions (Adamson & Darling-Hammond, 2012). In fact, our own analysis suggests

teacher salaries in Pennsylvania rural districts are 13% lower than the national average while only 3% lower than the national average for Pennsylvania urban districts. Rural districts in Pennsylvania, thus, are at a competitive disadvantage in terms of the ability to offer wages competitive with urban districts.

While Pennsylvania has rarely experienced anything other than isolated teacher shortages, recent evidence suggests a growing number of districts may face a shortage of teachers. For example, as noted in the RFP, there has been a 21% decline in the number of individuals obtaining bachelor's degrees in education.

Concomitantly, anecdotal evidence suggests districts are increasingly having difficulty finding an ample supply of substitute teachers¹ and well-qualified teachers in specific course areas such as special education, physics, and courses designed for English Language Learners.² Indeed, the Pennsylvania Department of Education (PDE) has listed a number of districts and subject areas as having a shortage of teachers.³ While such listings have shown teacher shortages have typically plagued urban areas, recent listings of districts and intermediate units (IUs) designated as experiencing a shortage of teachers suggests rural districts are now experiencing issues with a shortage of teachers. As reported by PDE to the US department of Education, only two of the eight districts listed as having a shortage of teachers in 2014-15 were rural. In 2016-17, 16 of the 33 districts listed as having a teacher shortage were rural. Similarly, in their list of IUs experiencing a shortage of teachers for the 2014-15 school year, PDE reported three rural IUs, five urban IUs, and one IU with a mix of urban and rural counties. In 2016-17, PDE reported six rural IUs, six urban IUs, and two IUs with a mix of urban and rural districts were experiencing a shortage of teachers. These trends suggest teacher shortages are now impacting rural areas of the Commonwealth at least to the same degree as urban areas. In short, there is ample evidence to warrant the investigation of current and projected teacher shortages across the

¹ See, for example, <http://www.newsworks.org/index.php/local/pa-suburbs/97309-outsourcing-no-solution-for-pennsylvanias-substitute-teacher-shortage> and

<http://triblive.com/local/westmoreland/11707786-74/teachers-district-substitute>

² See <http://www.mcall.com/news/local/mc-pennsylvania-colleges-teacher-shortage-20161105-story.html> and [http://www.education.pa.gov/Documents/Teachers-Administrators/Proposed Teacher Shortage Areas 2015-2016.pdf](http://www.education.pa.gov/Documents/Teachers-Administrators/Proposed%20Teacher%20Shortage%20Areas%202015-2016.pdf)

³ See <https://www2.ed.gov/about/offices/list/oep/pol/tsa.pdf>

Commonwealth and, in particular, rural areas of the Commonwealth that may not have previously experienced shortage of teachers

This project, thus, will address the three Key Expected Outcomes as outlined by the *Center for Rural Pennsylvania*: (1) Determination of the demand for public school teachers in rural and urban Pennsylvania by school district, over the 10 next years, including instruction type, certification level, and other relevant factors; (2) Determination of whether the current and future supply of public school elementary and secondary teachers will be adequate to meet demand in Pennsylvania's school districts over the next 10 years; and, (3) Analysis of potential gaps between projected supply and demand for public school teachers by instruction type, level and other relevant factors, over the next 10 years.

Goals and Objectives: The purpose of this study is to carefully document both the supply of teachers and demand for teachers in every district in Pennsylvania, compare supply to demand as a means to identify districts experiencing a shortage of teachers, and to make projections about supply, demand, and shortages for the coming decade. There are four goals for this study. The first two goals include the calculation of projections for the supply of and demand for teachers for each school district. The third goal includes the administration of a survey of principals and superintendents about their experiences with recruiting and hiring teachers across the Commonwealth. The fourth goal is focused on bringing together the results from goals 1 through 3 to arrive at estimates of future surpluses or shortages of teachers for each district as well as to make comparisons between groups of districts.

Goal 1: Calculate the overall supply of teachers. The overall supply of teachers for a given year is composed of four sources of supply: (1) retained teachers; (2) newly entering teachers; (3) returning teachers; and, (4) transfer teachers. As shown below, each of these components is a separate objective.

Objective 1-A: Calculate the supply of teachers designated as retained teachers. Retained teachers are those continuing in their teaching position in the same district from one year to the next.

Objective 1-B: Calculate the supply of teachers designated as newly entering teachers. Newly entering teachers are those educators in their first year of teaching in Pennsylvania and can be recent graduates of teacher preparation programs (TPPs) or from another state.

Objective 1-C: Calculate the supply of teachers designated as returning teachers. Returning teachers are those educators who previously taught in Pennsylvania, left teaching in a Pennsylvania public school for at least one year, and then returned as a teacher in a Pennsylvania public school.

Objective 1-D: Calculate the supply of teachers designated as transfer teachers. Transfer teachers are those educators moving from one Pennsylvania public school district to another Pennsylvania public school district. At the state level, including transfer teachers over-estimates the supply of teachers. However, at the district level, including transfer teachers is necessary to calculate accurate estimates of district-level supply.

We decompose supply into the four components and present the results for each component for two reasons. First, calculating each component is necessary to arrive at an overall accurate picture of teacher supply. Second, there are likely to be differences between rural and urban in the four components of supply and understanding the differences for the specific types of supply will allow us to present more nuanced policy suggestions that target the specific issues experienced by rural districts in different parts of the state. For example, evidence suggests rural schools are slightly less likely to suffer from teacher transfers than schools in other locales, but slightly more likely to experience teachers leaving the profession than schools in other locales (Goldring, Taie, & Riddles, 2014). Research also suggests rural districts have greater difficulty in hiring new teachers, particularly properly certified and well-prepared teachers (Jimerson, 2003; Lowe, 2006; Monk, 2007). Our decomposed supply results will provide information about whether these trends hold true in Pennsylvania and the degree to which they are similar to trends for urban districts.

Goal 2: Calculate the overall demand for teachers. The overall district-level demand for teachers is the sum of two distinct elements of demand: (1) student enrollment and (2) teacher attrition. As shown below, each element of demand is a separate objective.

Objective 2-A: Calculate demand based on projected number of students given a constant student-teacher ratio. Overall demand for teachers is driven in large part by the number of students enrolled in a district

and student-teacher ratios. This analysis uses both of these measures to calculate the demand for the number of teachers for the next decade.

Objective 2-B: Calculate demand due to teacher attrition. As Ingersoll and Smith (2003) note, the primary driver of the immediate demand to hire new teachers to a district is the attrition of teachers from a particular district. Thus, we will calculate the historical and projected annual teacher attrition for each district.

Calculating the separate elements of the demand for teachers and presenting the results for the separate calculations is important for two reasons. First, calculating each element of demand is necessary to arrive at an accurate aggregate picture of the demand for teachers. Second, there are likely differences between rural and urban districts for the two elements of demand. Calculating and presenting the results for each element will provide a detailed understanding of the drivers of the demand for teachers across district types. For example, rural districts in Pennsylvania have experienced declining enrollments and will likely continue to do so. This will differentially impact the demand for teachers in rural districts relative to other districts. In addition, rural districts in Pennsylvania may have a greater percentage of teachers nearing retirement eligibility than other districts. Indeed, our analysis of the PDE 2016-17 educator employment data shows that a slightly greater percentage of rural teachers than urban teachers are nearing retirement eligibility. Further, we found 14% of rural districts employ at least 20% of teachers nearing retirement eligibility as compared to only 5% of urban school districts.⁴ This could suggest a nascent challenge with teacher attrition due to retirements that disproportionately affects rural districts.

Goal 3: Capture principal perceptions of supply and demand. The primary drawback of supply and demand analysis based on the employment of properly certified teachers is that such analyses provide little information about the ability of districts to hire and retain teachers they perceive as well-prepared and effective. For example, all of the newly hired teachers in a district could hold the proper certificate for the subject area to which they are assigned to teach, but the district could be dissatisfied with the quality of the

⁴ These analyses exclude charter schools. The discrepancies would be even greater if charter schools were included in the analyses.

newly hired teachers even though, on paper, they are properly certified to fill the positions. To address this issue, we will administer surveys to principals and superintendents to gather their perceptions about supply and demand. This will provide a wealth of information about supply and demand that cannot be captured using existing state data.

Goal 4: Determine if there is an over-supply of teachers, shortage of teachers, or equilibrium in teacher supply and demand across rural and urban districts.

Finally, we will use the results from the above analyses to measure supply versus demand for every district over the coming decade. We will also make calculations for each labor market, intermediate unit, and for all rural and urban districts as designated by the Center for Rural Pennsylvania. We will also calculate and present aggregate comparisons of rural and urban districts.

Data: We will use a variety of data to complete this study. From the Pennsylvania Department of Education (PDE), we will use teacher certification data and teacher employment data from 2008-09 through 2017-18 as our base files. These files include individuals obtaining Pennsylvania teacher certification and individuals employed as educators in all Pennsylvania schools.

We will also use the following district-level data from PDE: projected student enrollment by grade level (2008-09 through 2017-18), percentage of students participating in the federal free-/reduced-price lunch program (2008-09 through 2017-18), percentage of Limited English Proficient students, and student enrollment projections through 2025-26. We will replicate the PDE methodology to calculate enrollment projections for 2026-27.⁵

From the Elementary and Secondary Information data on the National Center for Education Statistics website, we will use the number and percentage of students by race/ethnicity in each grade level (2008-09 through latest year available). This data will be used to calculate the demand for teachers. Also from the National Center for Education Statistics, we will use the comparable wage index (CWI). The CWI compares the salaries of teacher to the salaries of college-educated workers in the same labor market. The

⁵ See <http://www.education.pa.gov/Data-and-Statistics/Pages/Enrollment%20Reports%20and%20Projections.aspx#tab-1>

CWI can be used to assess whether a district's teacher salaries are competitive with non-education employment opportunities.

Finally, we will classify districts by rural and urban geographic locales, based on the Center for Rural Pennsylvania's population density based definition⁶ of urban geography consisting of those areas in the Commonwealth with a population density of 284 or more persons per square mile. We will use these data to identify supply and demand trends separately for rural and urban public school districts.

Methods: The methods we employ for Goals 1 and 2 include ordinary least squares (OLS) regression analysis to make projections into the future. Our approach seeks to replicate the methods employed by the American Institute for Research in their studies of teacher supply and demand in Oklahoma and Massachusetts (Berg-Jacobson & Levin, 2015; Levin, Berg-Jacobson, Atchison, Lee, & Vontolos, 2015). The OLS regression analyses are used to predict a particular quantity such as the number of teachers demanded by a particular district based on factors that influence the quantity such as student enrollment, geographic locale, student demographics, and student-teacher ratio. We cannot definitively describe our regression equations in this proposal because, once we obtain all necessary data, we will use historical data to test various regression models before using them to make projections about the future. For example, we will use a variety of different district level data from 2008-09 through 2013-14 to predict the supply of and demand for teachers in 2014-15 and 2016-17. We will alter and refine the regression model until we find the model that best predicts the known results in 2014-15 and 2015-16. In this way, we will test our ability to accurately predict the future using historical sets of data before employing the regression models to make actual predictions about the future (2017-18 through 2026-2027).

⁶ See: http://www.rural.palegislature.us/demographics_rural_urban.html.

Finally, because teacher supply, demand, and shortages vary by school level and subject area, all of the analyses described below will be calculated for all teachers as well as teachers in the following areas: kindergarten/elementary primary grade (1-3), elementary intermediate grade (4-6), elementary fine arts, middle school English, middle school mathematics, middle school science, middle school social studies, middle school fine arts, middle school foreign language, high school English, high school mathematics, high school science, high school social studies, high school fine arts, high school foreign language, chemistry, physics, biology, Limited English Proficient (LEP) courses, special education, and career and technical education (CTE). We will also aggregate across subject areas to make predictions by school level (elementary-, middle-, and high- school grade levels).

Goal 1 Methods: Calculate the overall supply of teachers. We will use regression-based approaches to estimate projections for each of the four components of supply--retained teachers, new entrants, returning teachers, and transfer teachers. As noted above, we will estimate a number of regression models until we determine the model that is most accurate in making predictions. In general, our regression models will predict each of the four components of supply for each district based on a number of factors. All four regression analyses will explore the use of the following factors: prior supply over the previous five years, total teachers, district size, teacher characteristics (age, gender, and race ethnicity), percentage of students participating in the free-/reduced-lunch program, percentage of LEP students, percentage of African American students, percentage of Hispanic students, district percentage of students scoring proficient or above on state tests, labor market, locale (rural/urban), and sparsity. For the regression models predicting retained teachers, returning teacher, and transfer teachers, we will also include the average teacher salary adjusted by the CWI. For newly hired teachers, we will use beginning teacher salary adjusted by the CWI rather than the average teacher salary adjusted by the CWI. Further, we will explore how these factors might interact

with each other. For example, we will explore how the influence of district size on supply might vary across labor markets or how the influence of student demographics on supply might vary across locales. Finally, as noted above, these regressions will be used to make projections for all teachers and 21 sub-groups of teachers and produce projections for each district for 2018-19 through 2027-28.

Goal 2 Methods: Calculate the overall demand for teachers. For the first element of demand—student enrollment—we will make simple calculations using PDE’s projected student enrollment and student-teacher ratio. Similar to the analysis by Levin, et al. (2015), we will average the last three to five years of data on student-teacher ratio and assume that districts would want to maintain this student-teacher ratio all other factors being equal. The projected number of teachers is then calculated by: $\text{number of projected teachers} = \text{projected number of students} \times \text{student-teacher ratio}$.

We will use regression-based approaches to make projections for demand driven by teacher attrition. As with our other regressions, we will use existing data to identify the most accurate regression model before making projections. The regression equation will be used to predict the number of vacancies that would need to be filled. The model will explore the use of the following factors: prior attrition over the previous five years, teacher characteristics, teacher experience, total teachers, percentage of students participating in the free-/reduced-lunch program, percentage of LEP students, percentage of African American students, percentage of Hispanic students, district percentage of students scoring proficient or above on state tests, labor market, locale (rural/urban), and sparsity.

We will calculate the total number of teachers demanded for each district and year by simply adding the student enrollment demand number to the teacher attrition demand number. The sum will be the total demand for each district. This process will be replicated for all teachers and all 21 sub-groups of teachers.

Goal 3 Methods: Capture principal perceptions of supply and demand. Our survey about supply and demand was co-developed by Dr. Fuller and Dr. Joe Clapper of the PA Principals Association. We will pilot the survey and adjust the survey instrument accordingly. The survey will be administered electronically. We will work with various education and news organizations to advertise the importance of the survey. Based on Dr. Clapper's advice, we will administer the survey in November 2017 to maximize the response rate. Based on past surveys and the importance of this topic, we expect to garner between a 50% and 70% response rate.

We will use descriptive statistics, inferential statistics, and OLS regression to analyze the results. The descriptive and inferential statistics will document and assess differences in perceptions about teacher supply and demand between rural and urban districts. We will also document and analyze differences by labor market and intermediate unit. Multinomial logistic regression will be employed to assess the degree to which rural administrator perceptions are different than those from urban and suburban administrators after controlling for district factors such as size, student demographics, and location. Multinomial logistic regression is a statistical approach used when the outcome variable is not continuous and divided into three or more groups. In this case, our outcome variable will be three groups of responses: high demand, medium demand, and low demand. These three groups will be created based on the responses of principals and superintendents. Finally, we will calculate regression analyses for different groups of teachers similar to the aforementioned 21 groups of teachers. A final determination of these groups will be made after sample sizes are calculated once the survey is completed.

Goal 4 Methods: Determine if there is an over-supply of teachers, shortage of teachers, or equilibrium in teacher supply and demand. This analysis will be a simple comparison of supply and demand that will result in a number of teachers representing the surplus or shortage of teachers as calculated by # teacher supplied – # of teachers demanded and the proportion of supply versus

demand calculated by # teachers supplied divided by the number of teachers demanded. These calculations will be made for all teachers and 21 sub-groups of teachers for each district for the years 2018-19 through 2027-28.

2018 Project Schedule:

January-February: (a) Analyze results from a survey of Pennsylvania principals and superintendents. The survey will be administered in collaboration with the PA Principals Association and the Pennsylvania Association of School Administrators; (b) Disseminate follow-up survey to non-responding principals and superintendents; (c) Disseminate survey to teacher preparation programs; (d) Clean and assemble PDE data files on certification and employment.

March-May: (a) Complete cleaning and assembly of PDE data files on certification and employment; (b) Merge all PDE data together to create master file for 2009-10 through 2016-17; (c) Merge survey data to PDE data.

June-August: (a) Conduct descriptive and statistical analyses of supply and demand using master file; (b) Make district-level comparisons of supply and demand, including rural and urban district comparison; (c) Calculate predictions for supply, demand, and the balance of supply/demand for all districts over the next decade.

September-November: (a) Draft Report to Center for Rural Pennsylvania

December-January: (a) Finalize report and all data tables.

Outcomes and Deliverables: Our study will provide a number of deliverables. First, we will deliver a report that includes an executive summary, a body that will review all of our findings related to comparisons across

different groups of districts, a policy implications section, and an appendix that details our methodology. There will also be a separate appendix with tables that include our projections for each district in Pennsylvania over a 10 year time span. This appendix would include the results for each district by school level and subject area.

With respect to the body of our report, we will include descriptions of our findings from our comparisons of groups of different types of districts. Specifically, we will include the following comparisons of districts:

- 1) Rural versus urban;
- 2) Geographic location of the state (e.g., northwest versus southeast);
- 3) Student enrollment categories;
- 4) Student demographics (poverty, race/ethnicity, LEP, special education);
- 5) Student achievement categories (based primarily on state mandated test results);
- 6) Salary categories after adjustment by CWI;
- 7) Proximity to closest three preparation programs;

Further, within all rural districts as designated by the Center for Rural Pennsylvania, we will include analyses two through seven from above.

The body of the study will also include a description and discussion of our findings from the regression analyses. These findings could potentially identify factors associated with components of supply or elements of demand for all districts and for rural districts in particular. The body of the paper will also include a review of our findings from the survey of principals and superintendents, including from the open-ended questions about barriers to hiring and strategies the state could employ to assist districts in hiring and retaining teachers.

The policy implications of our study will include a discussion of the policy relevant findings from our study. Potential areas of discussion are included in the next section.

We will also provide excel files with all of our projections for each district in Pennsylvania. This file would be placed on the Center for Rural Pennsylvania website so others may access the information.

Specifically, we will provide excel files that contain the following:

- 1) Supply projections for each component of supply for each district by school level and subject area;
- 2) Demand projections for each component of demand for each district by school level and subject area;
- 3) Comparison of overall supply and demand for each district by school level and subject area;
- 4) Production numbers and placement rates (percentage of graduates obtaining employment as a teacher in Pennsylvania within x years after certification) for each teacher preparation program by school level and subject area; and,
- 5) Preparation programs providing teachers to each district by school level and subject area.

Policy Considerations: We anticipate our results will identify a number of policy issues that will have implications for school districts, preparation programs, PDE, and the legislature. At the school district level, the results for the components of supply and elements of demand could inform the actions of school districts related to recruitment efforts such as marketing, interviewing, utilization of signing bonus, housing stipends, and other strategies.. School districts could, in fact, use the excel file to identify similar districts and then learn some best practices from the districts that have greater supply-demand ratios. From the excel file about the production and placement of teachers by school level and subject area, a district could approach a TPP to explore the development of a university-district partnership of the type supported by the Every Student Succeeds Act. Finally, with respect to district policy, our analysis of the survey results from principals and superintendents—particularly the open-ended questions—may provide some strategies that could be adopted by districts. For example, the survey results may reveal that rural districts effective at recruiting teachers may employ specific marketing techniques are have entered into university-district partnerships.

With respect to TPPs, the excel file on the placement rates of graduates and the districts hiring their graduates could help TPP administrators identify strategies to increase the production of graduates in shortage areas as well as identify school districts that may be interested in entering into university-district

partnerships. This is especially critical in rural areas where many school districts are not near any TPPs. Further, TPPs may also be able to identify other TPPs that have greater success in terms of the production and placement of graduates, especially in shortage areas and learn from the strategies employed by those TPPs.

With respect to PDE, this analysis will provide information that will help them target their Every Student Succeeds Act funding for higher education. Specifically, PDE could create incentives for TPPs to increase production in certain subject areas in particular regions of the state. The results could also assist in PDE creating additional incentives for students to enter TPPs in specific subject areas in particular regions of the state. Further, the results could spur PDE to re-assess the passing scores used to certify individual teachers. Given research has found that such cut scores improve teacher quality or effectiveness and many students are unable to enter teaching because of an inability to pass the certification tests, a policy to relax standards in shortage areas might be a low-cost, high-impact policy solution.

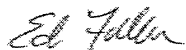
Finally, there will be multiple policy considerations for the legislature. First, we suspect a lack of funding may be associated with districts experiencing a more acute shortage of teachers than other districts. Given Pennsylvania continues to have an inequitable school funding formula, such discussions will likely be included in our report. Second, our report might discuss the relationship between declining enrollment in higher education institutions amid increasing tuition rates—particularly in rural areas—as an issue that needs to be addressed by the Legislature. Third, our report might suggest the state offer a loan forgiveness program for individuals to enter teaching to fill shortage subject areas and work in school districts experiencing difficulties in staffing shortage areas such as districts in rural areas.

Partners and/or Subcontractors: Given Dr. Fuller’s extensive experience in publishing reports on teacher supply and demand in school districts and states and his experience as Director of Research at the Texas State Board for Educator Certification, he will be the project director. He will partner with Dr. Kai A. Schafft and Dr. Erica Frankenberg, each of whom brings unique skills to the project. Dr. Schafft has particular expertise in rural education and understanding the unique rural contexts that influence educator supply, demand, and

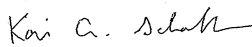
shortages. Drs. Fuller and Schafft, in fact, are supervising a dissertation that examines the root causes of teacher shortages in rural schools in all 50 states. Dr. Frankenberg has a strong background in education and demographic research, particular with respect to issues of segregation that certainly impact teacher supply, demand, and shortages. The PA Principals Association and PASA are partners to assist in increasing the survey response rate. We will draw in particular upon institutional resources associated with research and outreach centers that we direct.

If awarded the contract, we would hire a graduate student with strong quantitative and writing skills to assist in data analysis and report writing. We are convinced of the public policy implications of this research and its potential to suggest important policy recommendations for Pennsylvania school districts. We look forward to your response to this RFP submission.

Sincerely,



Ed Fuller
Assoc. Professor of Education
Director, *Center on for Evaluation
Education Policy Analysis*
Dept of Educ Policy Studies



Kai Schafft
Assoc. Professor of Education
Director, *Center on Rural
Education and Communities*
Dept of Educ Policy Studies



Erica Frankenberg
Assoc. Professor of Education
Director, *Center for Education and
Civil Rights*
Dept of Educ Policy Studies