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# The Role of Representative Bureaucracy: A Literature Review Examining the Academic Impact of Representation in Schools for African American and Latinx Students

Danielle R. Gilmore

George Washington University, Washington, District of Columbia, United States.

Corresponding author email id: DanielleG@GWU.edu

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**Abstract** – The public education system is the largest and most common bureaucracy in the United States. This paper describes the effectiveness of applying representative bureaucracy within school systems to improve academic achievement for African American and Latinx students to reduce race-based academic achievement gaps. Results reveal representation school boards, administration, and teachers improves academic achievement because: (1) minority school leadership can advocate for programs and policies to support minority students, (2) increased representation creates enhanced cultural competence and shared understanding, and (3) minority teachers are better able to build relationships and connect to minority students which enables them to serve as mentors and advisors. Representation within schools increases funding for bilingual programs and academic achievement for African American and Latinx students. Thus, decreasing the race-based academic achievement gap requires identifying policies and practices to increase diversity among school leadership and the teaching workforce to support minority students holistically.

**Keywords** – Representative Bureaucracy, Education, Latinx Students, African American Students, Academic Performance, Passive Representation, Active Representation, Academic Achievement.

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## I. INTRODUCTION

### A. Race-Based Academic Achievement Gaps

African American and Latinx students have lower academic performance compared to white students [1-3] Racial disparities in academic achievement significantly contribute to differential educational attainment for students from diverse racial/ethnic backgrounds [4]. For example, 86 percent of White students graduate high school in four years, while only 69 percent of African American and 73 percent of Hispanic students graduate high school within the same time [5]. However, research has shown that African American and Latinx students have improved academic performance when attending schools with higher percentages of African American and Latinx teachers and school administrators [6-8]. The increased representation results in more policies and programs that specifically benefit minority students [6]. Thus, the paper aims to describe representative bureaucracy (R.B.) mechanisms as a strategy to improve academic achievement for African American and Latinx students.

### B. The Public School System Bureaucracy

The public education system is the largest and most common bureaucracy in the United States (U.S.) [6, 9, 10]. Moreover, public schools produce substantial data, making it an ideal sector to study R.B. [9]. School boards comprise elected or appointed officials who oversee the school districts in their jurisdiction [8, 11]. In the majority (59%) of school boards elections, candidates run in at-large elections in one large district and win by

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majority vote [12]. Twenty-nine percent of school board elections are “ward or single-member district elections divide the jurisdiction into smaller electoral units in which candidates run for a single seat” [12]. In a small number of dependent districts (3%), chief elected officials (e.g., city manager, city mayor) appoint school board members.

Furthermore, nine percent of districts use a combination of all three election methods [12]. At the middle level, principals and school administration act as managers who oversee the day-to-day school activities within their district, hire teachers, and decide on policies and programs, among other tasks [6, 13, 14]. Finally, teachers serve as street-level bureaucrats who must implement policies at the direction of the school leadership and interface with students (i.e., clients) based on resource constraints [6, 10, 15-17]. When examining the impact of schools as a bureaucracy, it is imperative to apply the Critical Race Theory. Race impacts students’ experiences and outcomes and, thus, cannot be ignored or discounted. Researchers need to incorporate race into studying public administration and its impacts to effectively research R.B. and manage diversity in organizations, including schools [18].

## **II. THEORETICAL FRAMEWORK**

### *A. Representative Bureaucracy (R.B.)*

R.B. is based on the premise that individuals seek to maximize utility, and bureaucrats are likely to use their limited discretion to make decisions reflecting their values, including socialization [9]. R.B. supporters argue that increasing members of marginalized groups’ (i.e. minorities) access to position of power will improve the lives of other members of that marginalized group [19]. Because, as bureaucracy’s demographics mirror the public it represents, it will become more responsive to public needs [6, 7, 9, 20].

### *B. Defining R.B.: The Three Types*

R.B. occurs via passive, active, substantive, and symbolic representation. Passive representation, also called descriptive representation, reflects the degree to which the characteristics of the bureaucracy mirror the characteristics of the larger populations it represents [2, 7, 11, 16, 17, 19, 21-24].

Active representation involves individuals within the bureaucracy intentionally advocating and making decisions to benefit a group through removing systemic barriers or discriminatory policies [13, 19, 24, 25]. Active representation also occurs when administrators express the desires or interests of the group whom they represent [8, 22, 23, 26]. Substantive representation arises when minority bureaucrats (e.g., African Americans) indirectly influence majority (e.g., white) bureaucrats or directly through making policy decisions impacting minority [8, 22]. In symbolic representation, the mere presence of minority (e.g., Latinx) bureaucrats changes the behavior of other bureaucrats and members of the public and makes agency and its services more attractive (or seem more accessible) to minority (e.g., Latinx) members of the public [8, 10, 23, 26].

Passive representation can lead to active representation, although its existence does not guarantee it [7, 13, 22, 26]. Passive representation is likely to lead to active representation when minority bureaucrats share values of minority, have a great deal of discretion, and policies are relevant to the demographic trait of interest [17, 24]. Passive representation translates to substantive benefits through direct and indirect influence on policy and programmatic outcomes. Minority bureaucrats directly influence outcomes for their group through (1) increased

partiality or bias towards policies that benefit their social group, (2) shared value systems implementing policies that more closely reflect the values and beliefs of their social group, and (3) enhanced understanding, because minority bureaucrats are more likely to understand values, beliefs and constraints of their minority group even if they do not share the experiences of beliefs. Minority bureaucrats indirectly produce substantive benefits by influencing bureaucrats in the majority through (1) checking behaviors and policies to prevent overreach, (2) disproving discriminatory policies and behaviors, (3) physical presence may limit the expression of other bureaucrats biases, and (4) forge better and stronger relationships with clients [22]. For passive representation to become active, minority bureaucrats will work to promote the interests of groups they represent, and non-minority bureaucrats will be responsive [13]. Within the contexts of education, it is reasonable to assume school boards, administrations, and teachers want all students, regardless of background, to succeed. For the context of my paper, I use this assumption to investigate how representation affects academic achievement and other outcomes for African American and Latinx students.

### **III. RESEARCH QUESTION & HYPOTHESIS**

Schools are multilevel bureaucracies attempting to produce multiple outputs under limited resources [27]. The purpose of this paper is to unpack the impacts of R.B. and minority representation in schools for African American and Latinx students. I will answer: How do R.B. impact African American and Latinx students' academic performance? Evidence shows African American school leadership is more likely to make decisions that benefit African American Students, and for Latinx administration vice versa [7, 11, 14, 16]

Furthermore, minority representation among teachers has been linked to improved academic performance, more beneficial policies, and less discrimination for minority students [7-9]. Therefore, I hypothesize that minority students (i.e., African Americans and Latinx) in schools with higher levels of R.B. will have better academic performance. My hypothesis is based on three causal mechanisms, which I will highlight throughout the paper. These mechanisms are (1) minority bureaucrats advocate for individuals, which lessen discrimination, (2) representation increases diversity and creates a more culturally responsive environment for minority students, (3) minority students are more comfortable, build stronger teacher-student relationships, and perform better as a result [6-9, 13, 14, 16, 25, 28] In the next section, I outline the methodology used in my literature review of R.B. in schools, and describe the articles included in the review. Then, I briefly discuss the themes which emerged from the review, including the effects of school superintendents employing public management networking principles on African American and Latinx achievement; mechanisms and factors that contribute to R.B. within school systems; and the impacts of R.B. on African American and Latinx students. I conclude with a brief discussion where I highlight the research and policy implications and study limitations.

### **IV. METHODOLOGY**

#### *A. Eligibility Criteria*

Empirical peer-reviewed studies with a primary or secondary outcome of academic achievement were included. Reports, white papers, technical documents, literature reviews, meta-analyses, and book chapters were excluded from the review. The primary study population must also include African American and/or Latinx students in the U.S. to qualify for inclusion. White students may be included as a secondary population or comparison group, although such criterion is not required. Studies with participants in grades kindergarten

through twelfth grade were included in the review. Studies with primary populations beyond high school or outside the United States were not included in the review.

### B. Search Strategy & Process

The search process began on March 15, 2019, with simultaneous searches across the Business Source Complete, Academic Search Complete, Education Source, ERIC, Historical Abstracts with Full Text, Humanities & Social Sciences Index Retrospective: 1907-1984 (H.W. Wilson), Military & Government Collection, Urban Studies Abstracts, and ABI/Inform Collection databases. The searches were limited to full text available, English peer-review journals. The following key terms were used in various combinations across the databases: representative bureaucracy, schools, minority, performance, academic achievement. The initial searches yielded 311 total unique results, then downloaded into Endnote X7. Sixty-five article titles were screened, 38 were selected for abstract review, 30 articles were selected for full-text review, and 24 were selected for inclusion. The search selection process is displayed in Figure 1.

### C. Data Collection Process

*I read the 24 articles selected for inclusion extracted methodology, analytic strategy, theoretical framework, study population, main idea, sector, unit of analysis, and theme. The detailed information derived from the studies is outlined in the Summary Literature Table presented in Table 1.*

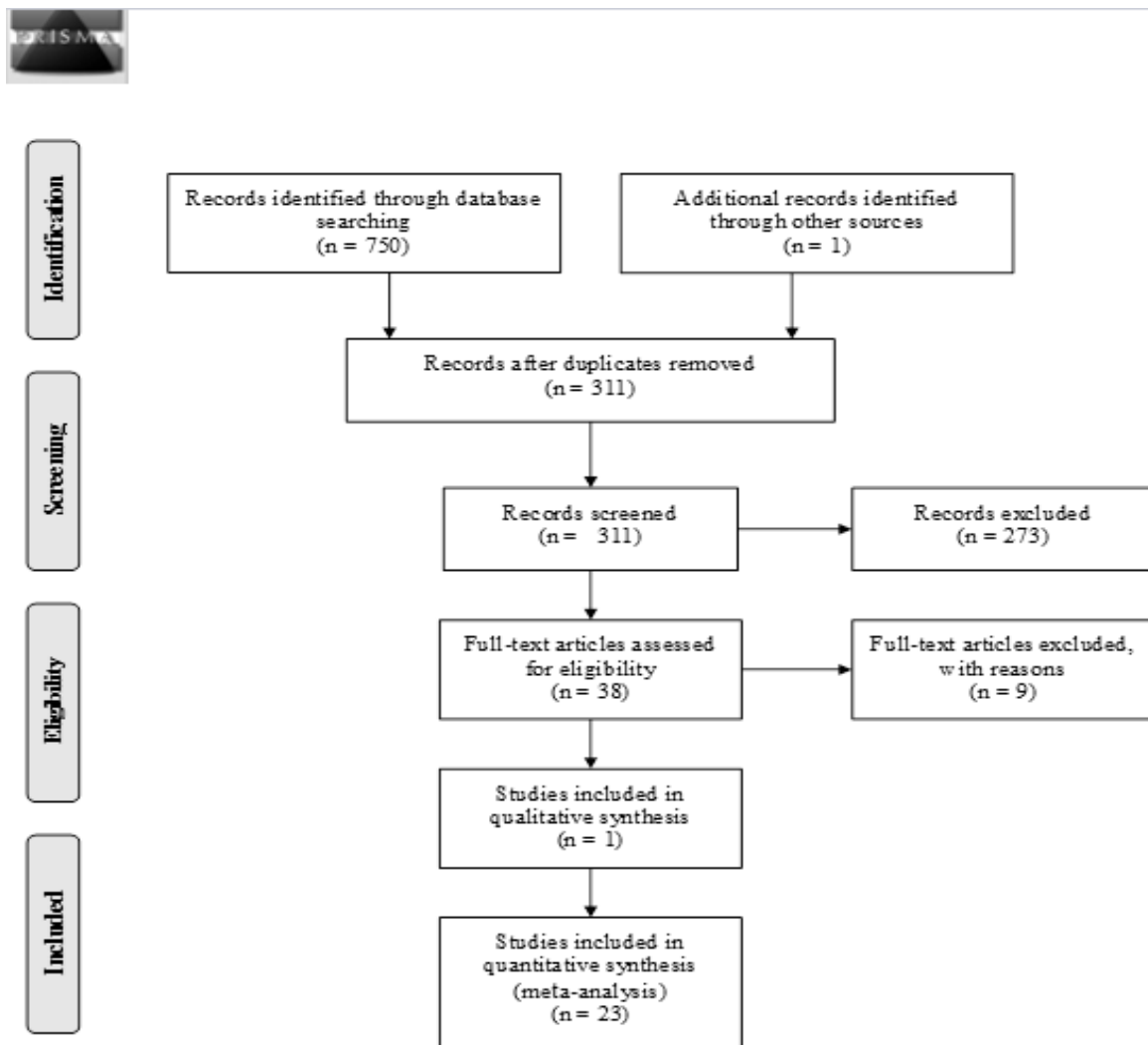


Fig. 1. Applying exclusion criteria to search strategies to identify articles used in the literature review (Prisma flow diagram).

Table 1. Summary Literature Table.

| Author                            | Year | Methods      | Analytic Strategy   | Theoretical Framework (s)         | Study Population   | Main Idea  | Updating Research/Theory  | Sector    | Unit of Analysis               | Theme   |
|-----------------------------------|------|--------------|---|-----------------------------------|--|--|---|-----------|--------------------------------|---|
| Stewart, England & Meier          | 1989 | Quantitative | Performing regressions on data from survey school districts' superintendent and U.S. census school district level school files and U.S. Census Housing and Population survey    | Representative Bureaucracy (R.B.) | African Americans in U.S. Urban School Districts   | Predict the relationship African American teachers, school administrators and school board members                       | Examines passive representation via African American school board members, school administrators and teachers | Education | School districts               | Understanding contributors to RB                                      |
| Meier, Wrinkle & Polinard         | 1999 | Quantitative | Conducted Ordinary Least Squares (OLS) and Substantively Weighted Least Squares (SWLS) across pooled time-series dataset from 361 Texas school districts across years 1991-1996 | R.B.                              | African American and Latinx K-12 Students in Texas   | Study the relationship between R.B. and outcomes for minority and non-minority students                                  | Examined how minorities gains under R.B. affect non-minorities  | Education | Students                       | Unpacking the impacts of R.B.   |
| Nielsen & Wolfe                   | 2001 | Quantitative | Describe methodological limitations of previously published paper, and employ analyses techniques to correct it   | R.B.                              | African American and Latinx K-12 Students in Texas   | Correct methodical problems of Meier, Wrinkle and Polinard (1999) and draw new conclusions                               | Addresses limitations of Meier, Winkle & Polinard, 1999   | Education | Students                       | Unpacking the impacts of RB   |
| Robinson                          | 2002 | Quantitative | Conducted linear regression modeling on budgeting survey data from Texas school boards collected via Texas Education Agency for school year 1990-91                             | R.B.                              | Texas School Boards  | Determine how minority representation influences budget decisions  | Examine how representation impacts budgetary process and decisions  | Education | School Boards                  | Unpacking the impacts of RB   |
| Goldsmith                         | 2004 | Quantitative | Conducted multilevel analyses on National Education Longitudinal Survey data  | R.B.                              | African American, Latinx and White 8th grade students from nationally representative dataset | Use multi-model analysis to study how schools' racial composition influences African American, Latinx and White students | N/A (new)   | Education | Students                       | Unpacking the impacts of RB   |
| Meier, O'Toole & Nicholson-Crotty | 2004 | Quantitative | Conducted analyses on 1043 Texas school districts for school year 1998-99   | Multilevel Governance & R.B.      | Texas School Districts   | Determine how of Latinx in government impact Latinx students' performance  | Applies theory of multilevel governance to R.B. in school systems   | Education | School Leadership and Students | Understanding the contributors to R.B. & Unpacking the impact of R.B. |

| Author          | Year | Methods      | Analytic Strategy  | Theoretical Framework (s)  | Study Population                   | Main Idea   | Updating Research/Theory  | Sector        | Unit of Analysis | Theme  |
|-----------------|------|--------------|--|--|------------------------------------|---|---|---------------|------------------|--|
| Smith & Larimer | 2004 | Quantitative | Conducted Generalized Least Square Seemingly Unrelated Regression models on a pooled cross-sectional data from 350 multiracial Texas school districts with 1,000 or more students across years 1991-96 | Public Choice & Representative Bureaucracy (R.B.)  | Multiracial Texas School Districts | Study the relationship between school bureaucracy and school performance  | Challenges negative correlation between bureaucracy and performance through Economies of Scope            | Education     | Schools          | Unpacking the impacts of RB                              |
| Meier et al.    | 2006 | Quantitative | Conducted regressions on pooled cross-sectional survey data from more than 1,000 Texas school districts' administrations and non-survey data from the Texas Education Agency across years 1995-2001    | R.B.   | Texas School Districts             | Prove public management principles can be used to improve performance of disadvantaged students   | Apply public management research to education   | Public Admin. | School Districts | Explaining R.B. mechanisms & Unpacking the impacts of RB |
| Pitts           | 2007 | Quantitative | Performed Ordinary Least Squares regressions on Texas school district data collected across 1995-2002  | R.B.   | Texas School Districts             | Examine how high levels of representation among teachers and managers (e.g. Principals) impact organizational performance (measured via student outcomes) | Identify impacts of representation on organizational performance at the street level and managerial level | Education     | Students         | Unpacking the impacts of R.B.                            |
| Pitts & Jarry   | 2007 | Quantitative | Conducted ordinary least squares regressions on pooled cross-sectional data across 1995-2002   | Social identification & categorization; similarity/attraction; and information and decision-making | Texas School Districts             | Test the link between teacher diversity and organizational performance (measured via student outcomes)  | Examine impacts of ethnically diverse managers on organizational outcomes                                 | Education     | Students         | Unpacking the impacts of R.B.                            |

Table 1. Summary Literature Table.

| Author                                       | Year | Methodology  | Analytic Strategy  | Theoretical Framework (s)         | Study Population                                  | Main Idea                                   | New or Updating Research             | Sector    | Unit of Analysis | Theme                       |
|--|------|--------------|--|-----------------------------------|---|---|--------------------------------------|-----------|------------------|-----------------------------|
| Grissom, Nicholson-Crotty & Nicholson-Crotty | 2009 | Quantitative | Conducted ordinary least squares regressions on linked dataset from: National Center for Education | Representative Bureaucracy (R.B.) | Nationally representative sample of K-12 students | Examine impact of region on R.B. in schools | Identifying impact of region on R.B. | Education | Students         | Unpacking the impacts of RB |

| Author                | Year | Methodology   | Analytic Strategy  | Theoretical Framework (s) | Study Population                                  | Main Idea   | New or Updating Research  | Sector    | Unit of Analysis | Theme                         |
|-----------------------|------|---------------|--|---------------------------|---|---|---|-----------|------------------|-------------------------------|
|                       |      |               | Statistics (NCES) Schools and Staffing and U.S. Department of Education Office for the Civil Rights  |                           |   |   |   |           |                  |                               |
| Rocha & Hawes         | 2009 | Quantitative  | Calculated odds ratios using Department of Education, Office for Civil Rights, U.S. Census and National Latino Education Study   | R.B.                      | Nationally representative sample of K-12 students | Identify educational benefits African American teachers with Latinx students and vice versa                 | Identify how different minority teachers impact student outcomes                  | Education | Students         | Unpacking the impacts of R.B. |
| Ross, Rouse & Bratton | 2010 | Quantitative  | Conducted structural equation modeling on pooled data from 1,040 Texas public school districts across 1997-2001  | R.B.                      | Public School Districts in Texas                  | Identify causal and mediating factors contributing to Latinx student performance                            | Separates effects of indirect and direct influences on Latinx student performance | Education | Students         | Unpacking the impacts of RB   |
| Rocha & Wrinkle       | 2011 | Quantitative  | Conducted regression modeling on pooled cross-sectional data from approximately 1,000 Texas school districts and the Texas Education Agency across years 1995-2002   | R.B.                      | Public School Districts in Texas                  | Identify how Latinx representation on school boards influences availability of bilingual education programs | Examine ways race and gender work in tandem to influence policy decisions         | Education | School Boards    | Unpacking the impacts of RB   |
| Atkins & Wilkins      | 2013 | Mixed Methods | Interviewed 11 high school teachers and one administrator in Georgia & conducted Ordinary Least Squares regressions on pooled cross-sectional data from Georgia Public School Districts across years 2002-2006 | RB                        | Georgia Public School Districts                   | Identify how presence of female and minority teachers impact teen pregnancy outcomes for female students    | Identify benefits linked to R.B. beyond those linked to organizations             | Education | Students         | Unpacking the impacts of R.B. |

Table 1. Summary Literature Table.

| Author                    | Year | Methodology   | Analytic Strategy   | Theoretical Framework(s)              | Study Population  | Main Idea  | New or Updating Research   | Sector    | Unit of Analysis | Theme  |
|---------------------------|------|---------------|---|---------------------------------------|---|--|--|-----------|------------------|--|
| Atkins, Fertig & Wilkins  | 2014 | Mixed Methods | Interviewed 15 high school teachers from Georgia & conducted Ordinary Least Squares Regressions on data from the National Longitudinal Study of Adolescent Health | Representative Bureaucracy (R.B.)     | Nationally Representative Sample of Middle and High Schools | Estimate effects of minority teachers on African American and Latinx student outcomes                                  | Identify how representative assess impacts educational goals and outcomes  | Education | Students         | Unpacking the impacts of R.B.                      |
| Benavides & Medina        | 2014 | Descriptive   | Conducted descriptive analyses on 156 school districts across 2 regions in Central North Texas  | R.B.                                  | School Districts in Central North Texas                     | Examine how Hispanic student population effects Hispanic representation in school boards                               | N/A (new)  | Education | School Districts | Understanding contributors to R.B.                 |
| Meier & Rutherford        | 2014 | Quantitative  | Conducted regressions on panel data from the 1,800 largest U.S. school districts using U.S. Census data, school district surveys and data on election returns     | RB                                    | 1,800 Largest U.S. School Districts                         | Identify how partisanship and electoral structures influence African American representation on school boards          | Study impacts of at-large elections on African American representation after the 1982 amendment to the voting rights act | Education | School Boards    | Understanding contributors to RB                   |
| Melton                    | 2014 | Quantitative  | Conducted pooled time series analyses on data from Texas Education Agency, which includes data from more than 1,000 school districts across years 1995-2002       | R.B., Agency Theory and Goal Conflict | Texas School Districts                                      | Identify how goal conflict, active and passive representation impact Latinx students' pass rates on standardized exams | Examine how goal conflicts between political principals and bureaucratic agents affects student performance              | Education | Students         | Unpacking the impacts of R.B.                      |
| Farinade, LeBlanc & Otten | 2015 | Qualitative   | Interviewed 6 African American female teachers in southeastern region of U.S.   | Social Cognitive Career Theory        | K-12 African American Teachers in Southeast U.S.            | Identify strategies to increase number of minority teachers  | N/A (new)  | Education | School Teachers  | Understanding contributors to R.B. & Unpacking the |



| Author | Year | Methodology | Analytic Strategy | Theoretical Framework(s) | Study Population | Main Idea | New or Updating Research | Sector | Unit of Analysis | Theme           |
|--------|------|-------------|-------------------|--------------------------|------------------|-----------|--------------------------|--------|------------------|-----------------|
|        |      |             |                   |                          |                  |           |                          |        |                  | impacts of R.B. |

Table 1. Summary Literature Table.

| Author                  | Year | Category     | Analytic Strategy   | Theoretical framework (s)                                 | Study Population   | Main Idea   | New or Updating Research  | Sector    | Unit of Analysis  | Theme                         |
|-------------------------|------|--------------|---|---|--|---|---|-----------|-------------------|-------------------------------|
| Morton                  | 2015 | Quantitative | Conducted ordinary least squares regressions on public school data from Texas Education Agency, which includes data from more than 1,000 school districts across years 1994 - 2010  | Representative Bureaucracy (R.B.) and Personnel Stability | Texas Public Schools   | Identify moderating effects of passive representation and personnel stability to improve organizational responsiveness and policy outcomes for Latinx populations | Use public schools to simultaneously test passive representation and personnel stability theories | Education | Students          | Unpacking the impacts of RB   |
| Voight et al.           | 2015 | Quantitative | Conducted multilevel regressions on data from the California Healthy Kids and California School Climate Surveys (approximately 460 California middle schools), and school administrative data from the California Department of Education | Not specified   | California Middle Schools  | Examine link between racial disparities in school climate and race-based academic achievement gaps  | Examines relationship between school diversity and achievement gaps                               | Education | Students          | Unpacking the impacts of RB   |
| Nicholson-Crotty et al. | 2016 | Quantitative | Conducted probabilistic modeling on Early Childhood Longitudinal Survey-Kindergarten Cohort data  | R.B.  | Nationally representative sample of public elementary schools with gifted programs | Predict probability elementary school students are referred to gifted programs by race, between sample of African American and White students                     | Use individual level data to observe behavior between clients and bureaucrats                     | Education | Students          | Unpacking the impacts of RB   |
| Andersen                | 2017 | Qualitative  | Conducted ordinary least squares regressions on survey data from approximately 1,000 Texas school principals  | R.B. & Expectancy-Value Model                             | Texas School Principals  | Identify moderators to increase understanding of link between passive and active representation   | Increase understanding of passive and active representation in R.B.                               | Education | School Principals | Unpacking the impacts of R.B. |

#### D. Study Designs & Theoretical Frameworks

Table 1 outlines a summary of the 24 articles included in the review. Most articles (23) were from the education sector [1, 6, 9, 11, 12, 14, 16, 20, 21, 25, 27] [2, 3, 8, 10, 12, 13, 17, 23, 24, 26, 29-31] However, one article was from public administration and applied management and network principles to education [7]. Two

studies employed mixed methodology [23, 26]. One study utilized descriptive research methodology [8]. The remaining studies were purely quantitative [1-3, 6, 9-14, 16, 17, 20, 21, 24, 25, 27, 29, 30].

Given the paper's context, it is not a surprise that the most common theoretical framework found among the articles included in the review was R.B. [1, 2, 6-14, 17, 20, 21, 23-27, 29, 30]. In conjunction with R.B., five articles incorporated additional frameworks, including multilevel governance theory [6]; public choice theory [27]; agency theory and goal conflict [10]; personnel stability [17]; and expectancy-value model [24]. Two articles used alternate frameworks, social cognitive career theory [31] and social identification and categorization, similarity/attraction, information, and decision-making models [14]. One article did not specify a specific theoretical framework but did include a brief literature review on academic racial disparities and school climate [3].

#### *E. Studies' Population*

Texas's school districts are highly diverse, and Texas contains approximately one of every 14 or 7% of school districts in the U.S. [2, 6, 7, 10, 14, 16, 17, 24, 30]. As such, school systems Texas were the most prevalent study populations at all levels including: school boards [21]; school districts [2, 6-8, 10, 14, 16, 27, 30]; Principals [24]; Public schools [17]; and Kindergarten through twelfth grades (k-12) students [9, 20]. Study populations were also drawn from nationally representative samples of school districts [29], public schools [25], and k-12 students [1, 13]. Other study populations included: the 1,800 largest US school districts [12]; urban US school districts [11]; convenience samples of teachers and/or students [23, 26, 31]; and California middle schools [3].

#### *F. Studies' Data Sources*

The studies included in the literature review utilize data from various sources across multiple years. These sources include: (1) the Texas Education Agency (TEA) for the 1990-91 school year [21]; for the school year 1998-99 [6], across the school years 1995 – 2002 [7, 10], 1994 – 2010 [17], and unspecified periods [2, 8, 30]; (2) Texas school district administrative database across years 1991 – 96 [27], and years 1995 – 2002 [7, 14, 16, 30]; (3) longitudinal studies such as the 1988 National Education Longitudinal Study [1], the National Longitudinal Study of Adolescent Health [23], and the Early Childhood Longitudinal Study, Kindergarten Cohort [13]; (4) national datasets from the U.S. Census school district level data file [9, 12, 20] and U.S. Department of Education [25, 29]; (5) in-depth semi-structured interviews with teachers [3, 23, 26]; (6) a Texas principals survey [24]; and (7) the California Healthy Kids Survey administered to 7th-grade students and the California School Climate Survey administered to teachers across the school years 2008-2010 [3].

#### *G. Outcomes and Measurements*

The primary outcome, academic achievement, was most commonly measured via the pass rates on the Texas Assessment of Social Skills (TAAS) or Texas Assessment of Knowledge and Skills (TAKS) standardized exams administered in 3rd, 5th, 8th and 10th grades [9]. Studies examined the African American students' TAAS pass rates [9, 10, 14, 20]; Latinx students' TAAS [2, 6, 9, 10, 16] and TAKS pass rates [17]; White students' TAAS [10, 16] and TAKS pass rates [17]; and overall TAAS [7, 10, 14, 16, 27] and TAKS pass rates [24]. Academic achievement was also captured using reading and math standardized test scores [1], by placement in reading or math gifted and talented programs [13]; the California Academic Performance Index, based on average

performance on statewide standardized exams [3], percentage of students who score above 1100 on the SAT or ACT equivalent [6, 14, 16], attendance rates [6, 14, 16] and district level drop out rates [6, 14, 16].

The primary independent variable, passive representation, was measured by calculating the proportion of African American and/or Latinx teachers within schools [6, 7, 9, 10, 13, 14, 17, 20, 32]; the proportion of African American and/or Latinx school board members [2, 6, 8, 10, 12] or using indicator variables which equaled one when an African American teacher [13] or Latinx school board member was present [21].

The other variables included in the review capture schools' racial composition [1, 3, 6, 7, 10, 13, 17, 20, 23-27, 30]; school culture and climate [3, 24, 25]; school system expenditures such as average teacher salary [6, 9, 20]; and the average amount spent on students [2, 6, 10, 26, 27]; management practices and stability [7, 17]; school location [3, 11, 13, 24, 25, 29]; and other factors influencing student performance such as FARM eligibility [2, 3, 6, 7, 9, 10, 13, 14, 16, 17, 24-27]; student race [1, 3, 6, 13]; educational expectations [1, 23]; school connectedness [3, 23]; class size [7, 9, 13, 23]; student-teacher ratios [3, 14, 16, 26]; and teacher experience [6, 7, 9, 10, 13, 14, 16, 17].

#### H. *Studies' Analytic Strategies*

Most studies included in the literature review employed various types of regression. For example, Ordinary Least Squares regressions were used to study the relationship between representation: and organizational performance [14, 16]; gifted and talented placements [25]; minority teen pregnancy rates [26]; minority students' school connectedness and education expectations [23]; teacher stability and Latinx student performance [17] and principals responses to new programs and curriculum to promote diversity and support minority students [24]. Regressions on pooled cross-sectional and panel data examined relationships between minority representation in school leadership on budgeting decisions [21]; principals using public management and networking strategies and student performance [7]; Latinx school board representation and bilingual education programming spending and availability [30]; and goal conflict (measured via the difference in Latinx representation across school board, teachers and district population) and the impact to Latinx students TAAS pass rates [10]. One study conducted a logit regression to test the relationship between the representation Latinx population and the likelihood of Latinx members on the school board and administration [12]. To test relationships between school bureaucracy and student performance, studies also conducted Substantially Weighed Analysis [9, 20], logistic regressions [1], Generalized Least Squares Seemingly Uncorrelated Regression [27], Structural Equation Modeling [2], multilevel regressions [3], and probabilistic modeling [13]. To test the likelihood of representation based on environmental factors (e.g., population demographics), authors conducted logistic regressions [11] and descriptive analysis [8]. Lastly, qualitative interview data were analyzed using "a constant comparative coding method" where researchers read transcripts, extracted codes, and formed themes [31].

## V. RESULTS

I will present the results by describing ways to the benefits of applying public management principles to education and the R.B. contributors. Then, I will present the results which demonstrate R.B. within schools at all levels produces improved academic outcomes for students [23, 26], occurring through three mechanisms (1) African American and Latinx school leadership adopt programs and policies beneficial to minority students [7,

11], (2) representation increases diversity and creates a more culturally responsive environment for minority students [6, 16], and (3) minority students are more comfortable, build relationships and perform better as a result [7, 9, 26, 33].

#### *A. Public Management and Education*

Public management principles, especially networking, can improve the academic performance of minority and disadvantaged students [7]. Research shows that school superintendents who create networks with organizations outside the school district significantly increase student performance. However, when superintendents spend more time with school boards, academic performance decreases, especially for African American students. This is likely because the relationship becomes micromanagement in nature. Additionally, manager stability (i.e., reduced principal turnover) significantly increases African American and Latinx student performance. However, researchers only found positive academic effects on teacher stability on African American students, not Latinx students [7].

#### *B. Understanding the Contributors to R.B.*

The population demographics significantly contribute to R.B. and substantial representation. Benavides and Medina (2014) found that “in general, [Latinx] representation was greatest in school districts where the percentage of [Latinx] students was greater” [8]. Latinx representation in leadership influences the likelihood of representation throughout all aspects of the education system [6, 8]. Simply having a Latinx on the school board statistically significantly increases the influence of whether or not a school has a Latinx superintendent, school administrators, and teachers [6]. Specifically, Meier, O’Toole, and Nicholson-Crotty (2004) identified “a one percentage point increase in [Latinx] administrations is associated with a 0.436 percentage point increase in [Latinx] teachers; a similar increase in [Latinx] school board members correlates with a 0.117 percentage point increase in [Latinx] teachers, all other things being equal [6].

For African Americans, a similar top-down trend emerges. More African Americans in the population increase the likelihood of African Americans' representation on school boards, leading to more African American administrators who hire more African American teachers [11]. Specifically, a one percentage point increase in the African American population increases the average representation by approximately one percent. However, this varies by school board election type, with ward elections increasing African American representation by 0.965% and at-large elections increasing African American representation by 1.14% [12]. However, geographic region mediates this relationship with African Americans more likely to be represented in the north and least likely to be elected to school boards in the south [11].

Increasing representation in school systems may be correlated with population but also requires availability of qualified minority teachers and administrators. Farinade, LeBlanc & Otten (2015) conducted “one in-depth, opened-ended, semi-structured interviews, which lasted between 60-90 minutes” with six African American teachers [31]. In these interviews, African American teachers highlighted that institutional support directly influenced the amount of time it took to complete their teaching education program and enter the classroom [31]. Thus, researchers and practitioners must find ways to support teachers to train and retain diverse teaching bodies.

#### *C. Unpacking the Impacts of R.B.: Representation in on School Boards and Administration*

Smith and Larimer (2004) examine the impact of bureaucracy structure on African American and Latinx student outcomes and find schools with higher proportions of minority and low-income students have lower TAAS pass rates, but the district's size appears to yield the most significant influence on TAAS pass rates. These findings indicate that larger schools must face trade-offs in providing resources to students and such trade-offs harm minority students, especially [27].

When examining the relationship between representation and outcomes for Latinx Students, representation on school boards and in government impacts Latinx students [6, 8]. Higher proportions of Latinx teachers, Latinx superintendents, Latinx school administrators, and Latinx school board members are associated with a higher percentage of Latinx students passing standardized exams, attending school, taking the SAT and ACT, and scoring higher on the college boards (i.e., ACT and SAT). This is likely due to the top-down hiring influences [2, 6]. Additionally, research measuring goal conflict via differences in Latinx representation at various levels of school bureaucracy did not find a statistically significant impact on overall TAAS pass rates but did negatively impact Latinx pass rates [10]. Higher Latinx representation on school boards is also associated with increased funding for bilingual education programs [21, 30]. These funding policies support the causal mechanism that Latinx representation advocate for better policies and programming to improve Latinx student outcomes [7, 30].

Representation among teachers improves minority students' outcomes through increasing cultural relevance and responsiveness of materials. In an interview, white female school administrators discussed how minority teachers are encouraged to participate in program and policy development discussions to ensure culturally sensitive programming [26].

#### *D. Unpacking the Impacts of R.B.: Representation among Principals*

Building upon my casual argument, R.B. improves students' achievement through increased diversity and cultural inclusivity; Andersen (2017) revealed that minority principals are more responsive to supporting diversity programming. Specifically, African American principals are most responsive, followed by Latinx principals and white principals in supporting programs promoting diversity and supporting minority students [24].

#### *E. Unpacking the Impacts of R.B.: Representation among Teachers*

When examining the impacts of representation on student achievement, increased representation is positively associated with increased academic outcomes [2, 9, 13, 16, 17, 20, 25, 26, 29]. Evidence shows a one-point increase in minority teachers increased the pass rates on standardized exams for minority students by 0.0614 percent points and a 0.0730 percent increase for white students [9].

Representation is a crucial factor affecting academic outcomes for Latinx students. For example, research shows Latinx teacher stability statistically significantly impacts Latinx students in districts with less than 50% Latinx representation but is insignificant at higher levels of representation (i.e., 80% or more) [17], because turnover in districts with high rates of representation does not impact overall representation. However, high turnover in areas with lower sustained representation rates is palpable. Additionally, increased Latinx teachers are positively associated with an increased academic achievement [2, 9, 16, 20], school connectedness and educational expectations [23], and placement in gifted and talented programs [29].

Research further supports the causal mechanism that representation among teachers improves minority stude-

-nts' outcomes through building relationships and serving as role models. Evidence shows African American teachers are better able to build relationships with African American students, enabling them to serve as mentors and advisors due to shared culture, language, and experiences [23]. Teachers of all backgrounds discussed how they serve as role models in helping students with educational choices via interview but emphasized that African American and Latinx students especially need to see representation in the classroom “so that they know they can do anything” [26]. Research demonstrates that an increased percentage of African American teachers is correlated with decreased African American teen pregnancy rates, but only once a district has at least 20% African American teachers. There are no representation effects at smaller proportions [26].

Additionally, higher representation among teachers was linked to lower dropout rates and higher TAAS pass rates, but representation among school administrators was not statistically significant [13]. Furthermore, African American students are assigned to gifted and talented programs at higher rates when they have an African American teacher, but the mere presence of other African American teachers in school has a slight effect [13, 25, 29]. These results further confirm the importance of the teacher-student relationship because students interact with the administration and non-classroom teachers less frequently [16].

#### *F. Unpacking the Impacts of R.B.: Representation within School*

Schools with higher proportions of Latinx students have higher Latinx academic achievement [2] and receive more funding for bilingual education [30]. While students may attend the same school, they do not always have the same experiences. A study examining school climate and culture by race found that within the same school African American students reported lower levels of safety, connectedness, and adult-student relationships than their white peers. And, within predominately White and Latinx schools, Latinx students reported similar lower rates of safety, connectedness, adult-student relationship, and opportunities for meaningful participation in schools than their white peers. Racial gaps in school climate were more likely at higher income schools with lower student-teacher ratios. This indicates whites likely benefit more from increased school resources than minorities contributing to the increased gap, and further highlight the need to diversify the teaching workforce to ensure adequate representation for all [3].

Representation within schools matters as well, because students are influenced by their student body. In a survey of student expectations, researchers found African Americans have highest occupational expectations and education beliefs more than Whites and Latinx. African American students are 1.3 times more likely to have high occupational expectations and 2.1 times more likely than white students to have more positive attitudes towards math and English. For Latinx, the numbers are 1.2 and 1.6 times more likely than whites, respectively. Additionally, African American and Latinx students have improved beliefs and attitudes when they attend more racially diverse schools than primarily white schools. Analyses revealed that having higher educational and occupational beliefs statistically significantly increased reading and math scores [1]. These results further demonstrate that representation improves academic outcomes for minority students who can build relationships with individuals from similar backgrounds in a culturally sensitive environment.

## **VI. CONCLUSION**

### *A. Summary*

For three reasons, African American and Latinx representation in schools results in better academic achieve-

-ment for the minority. First, African American and Latinx members of school leadership are more likely to reflect the values and advocate for the concerns of minority students [6, 16, 24]. They can use their position to advocate for minority students resulting in policies, programs, and curriculum that are more culturally responsive and better tailored to the needs of minority students [13, 23, 24, 26]. Research shows Latinx representation on school boards correlated with increased funding for Latinx students and better performance [2, 8, 30]. Second, representation enhances cultural inclusivity and understanding in the learning environment, which increases academic achievement for minority students. Minority teachers better understand cultural experiences and can establish cultural links through learning [33]. Lastly, representation leads to increased opportunities for more mentoring and relationship building resulting in better academic outcomes for minority students. Students in schools with more representation have more opportunities for finding mentors with similar backgrounds, races, and ethnicities [16]. Furthermore, minority teachers can act as role models for their minority students in ways White teachers cannot [7, 9, 23, 26, 33] and build relationships through shared understanding and experiences [13, 26].

### *B. Key Findings Support Education Literature*

Representation in school systems has substantial effects on student outcomes through increased funding for programming and better academic achievement [1-3, 6-14, 16, 17, 20, 21, 23-27, 29-31]. Education is the path to social and economic mobility. Therefore, addressing disparities through enhanced representation is vital in improving outcomes. Researchers and practitioners must increase the number of African American and Latinx administrators and teachers to ensure minority students reap the benefits of adequate representation [11, 33]. My findings confirm existing literature showing that increasing diversity in schools will not harm white students [9, 17].

### *C. Strengths & Limitations*

No study is without its limitations. Due to the cross-sectional nature of the studies included in the literature review, I can only report correlational findings. However, I strengthen my paper by still using these results to support my claims, which the literature confirms. Additionally, I did not examine the intersectionality between race and gender. Representation may have differential effects across racial/gender subgroups (e.g., female African American, male Latino). Last, I chose to explicitly examine the impacts of representation on African American and Latinx students. Therefore, these trends may not be generalizable to other students of color, such as American Indian or Asian American. To the author's knowledge, this is the first paper to explicitly examine R.B. specifically among African American and Latinx K-12 students.

### *D. Practice, Policy and Research Implications*

Educators and practitioners must establish culturally relevant curriculum and teaching practices [33] and use a racial equity lens when evaluating policies and programs [21]. In districts where representation is low, school administrators should actively work to forge community partnerships and build relationships with organizations to connect students from all backgrounds to community resources [7].

Increasing representation in school systems also requires qualified minority teachers and administrators. Higher education institutions must support minority teachers to facilitate them in completing their teaching education programs and entering the classroom as quickly as possible [31]. Minority students benefit from

representation, especially within school districts where pass rates and school completion rates (i.e., drop out) are low, further highlighting the need to recruit, train and retain qualified minority teachers [16, 33].

Future research should focus on identifying mechanisms for schools to recruit and maintain diverse teachers and identify the specific causal pathways in which minority teachers better serve minority students to design a more effective curriculum and programming [16, 17]. When examining the impact of schools as a bureaucracy, it is imperative to understand the impact of diversity on academic performance to reduce racial disparities in educational attainment and improve outcomes for all [16, 34].

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### **AUTHOR'S PROFILE**



**Danielle R. Gilmore**, is a PhD candidate at the George Washington University Trachtenberg School of Public Policy and Public Administration, where she specializes in program evaluation. She is also a Selective Excellence Fellow at George Washington Institute of Public Policy. As a Fellow, she works closely with Dr. Andrew Reamer to conduct quantitative research analyzing the workforce impacts of non-degree credentials. Ms Gilmore is a phenomenologist who specializes in conducting culturally responsive and racial equity informed research and evaluation. Her research enhances policy making and implementation fidelity by highlighting practitioners' lived experiences to bridge the gap between policy and practice. She has a Master of Public Policy from Johns Hopkins University and a Bachelor of Science in Community/Public Health from the University of Central Oklahoma. Ms. Gilmore is a Certified Health Education Specialist (CHES) and has experience in project management, research, data analysis, and writing across academic and non-academic settings.