Gender and the Superintendency: The Power of Career Paths

Gina Laura Gullo [1,2]* and Jill Sperandio [3]

[1] Educational Leadership, Management, and Policy, Seton Hall University, South Orange, NJ, United States, [2] Cabrini College, Radnor, PA, United States, [3] Educational Leadership, Lehigh University, Bethlehem, PA, United States

Purpose: The gender gap in educational leadership is a national social justice issue. Despite efforts to increase the number of female superintendents in the US, representation remains low. This article investigates the career paths and perspectives of current and aspirant superintendents in Pennsylvania.

Research Design: This mixed methods study used an electronic survey with both quantitative multiple choice items and qualitative open-response items.

Findings: The gender gap persists Pennsylvania with possible perpetuation by female assistant superintendents' disinterest in the positions. The insider path (ascending into the superintendency from inside the school district) was preferred and perceived as most optimal; however, more superintendents and assistant superintendents pursued outsider career paths (ascending into the superintendency from positions outside of the district). Aspirant superintendents considered insider paths most optimal due to interpersonal factors while superintendents based perceptions on intrapersonal factors. Outsider paths were most optimal based on applicant traits according to superintendents while assistant superintendents cited various drivers with no prominent theme. Superintendents chose insider paths due to interpersonal factors and outsider paths due to district traits.

Conclusions: Similarities and differences in career planning preferences by men and women aspirant superintendents indicates an understanding by women of the insider path's potential to overcome bias regarding women in leadership roles. As this career path is frequently not an option, women must choose not to aspire or to prepare themselves for possible gender bias in hiring when applying as outsiders.

Keywords: gender, career path, mixed methods, educational leadership, superintendents, women, leaders, administration

Gender equality in education remains a significant social justice issue. Research has clarified gender differences in decision-making and problem-solving as well as benefits stemming from diverse approaches to organizational planning (Folkman, 2015). As a result, gender equity in leadership positions grows in both ethical and strategic importance (Swers, 2002; Rhode, 2003). Female teachers need women in top leadership positions to inspire and mentor them to take up the challenges of leading and to provide visible role models for female students developing leadership skills (McKinsey and Company, 2010).

National estimates suggested the number of women holding top educational leadership positions increased from 13% in 2000 (Glass and Franceschini, 2007) to 27% in 2015 (Robinson et al., 2017), but this slow growth would not close gaps until at least 2040 (Young et al., 2018). Such meager reductions despite social justice gains are unclear but may include a deficit of aspirant women leaders (Glass, 2000; Williams, 2003) and ongoing discrimination (Skrla, 2000; Brunner and Grogan, 2007; Kim and Brunner, 2009).

This article presents the findings of a study examining gender differences in aspirant and current Pennsylvanian superintendents' perspectives of career planning: the choice to pursue an insider route in the current or neighboring district or an outsider route in unfamiliar, non-local districts. While aspirant superintendents offered perspectives of the process, current superintendents shared both perceived and experiential understandings of the pros and cons of insider and outsider career paths. Together these findings inform career-planning recommendations for female aspirant superintendents that may help to promote gender equity in educational leadership.

CONCEPTUAL FRAMEWORK AND LITERATURE

The Construct of Gender

While sex refers to a classification made at birth defined by genitalia or chromosomal representation, West and Zimmerman (1987) asserted that gender refers to, "the activity of managing situated conduct in light of formative conceptions of attitudes and activities appropriate for one's sex category" (p. 127). Stated plainly, gender refers to behaving and thinking in ways that align to others' expectations for either a male or female—or "doing gender." Although still a generally acceptable construct for gender, other conceptualizations include the constructivist and deconstructivist views. Constructivism asserts that gender begins with sex assignment at birth and is reinforced throughout life (Hare-Mustin and Marecek, 1990; Lorber and Farrell, 1991). A deconstructivism view of gender focuses more on sex category expectation similarities as they are deconstructed by differences into gendered norms. A more modern definition of gender incorporates both constructivist and deconstructivist assertions into a broad definition: "Gender refers to those social, cultural, and psychological traits linked to males and females through particular social contexts" (Lindsey, 2016, p. 11).

For the purposes of this paper, we discuss gender in terms of male/man or female/woman as identified by the participants despite the potential for a full spectrum of gender identification by school leaders. Our use of polarized gender classifications aims to attribute findings to those perceived as male or female in a society where a gender spectrum is not yet widely recognized. Blount (1996, 2000, 2005) highlighted the fear of homosexuality in education (which we extrapolate to gender diversity) noting historically severe sanctions against those failing to conform to gender roles or exhibiting same-sex desires. Such intolerance continues in schools as evidenced by recent debate on transgender bathroom usage in schools. Gender polarization

served to increase participation in this study in light of such fear while generalizing consideration of these findings to any individual typically identified as "female" regardless of his or her placement on the gender spectrum. As most bias is experienced due to others' perceptions, this over-generalization serves to mimic the experiences of individuals per externally-pressured gendered roles and the differential treatment stemming from those roles.

Female Assistant Superintendent Career Choices

It is the authors' belief that women pursuing careers in educational leadership select options they believe will counter barriers and play to their strengths based on their understanding of potential challenges, stereotypes, and biases they may face. Examining the career decisions of 40 female teachers in the UK, Smith (2011) noted the importance of acknowledging women's agency and examining the interrelationship of the individual woman within her social context. Smith argued that to limit an analysis of women's under-representation in leadership positions to internal and external barriers to progression "…would be to deny women's agency. Women can, and do make decisions for themselves, and take steps to shape their own lives and careers…" (p. 2) including that relating to how and whether to consider formal leadership positions.

Several studies indicated women find alternative career paths that do not follow the typical progression (see Schein, 1971) traditionally used by men to access the US superintendency (Glass, 2000; Kowalski et al., 2011; Robinson et al., 2017). Kim and Brunner (2009) found 50% of the women in their study followed an alternative career path to the superintendency that did not include the high school principalship at all. Polinchock (2014) and Sperandio and Devdas (2015) described a plethora of career paths taken by female superintendents with no dominant pattern, but many transitioning through central office positions to the assistant superintendency. These studies support our hypothetical framework that female assistant superintendents both choose to aspire to the superintendency and position themselves for the superintendency in novel manners.

Insider/Outsider Paths to the Superintendency

Aspiring superintendents choose whether to apply as an insider (within the school district where they currently work and are known) or an outsider (in a district outside their own where they are less known or not at all known) with most following an insider path (Robinson et al., 2017). Carlson (1961, 1972) first examined insider-outsider, or in his terms place- or career-bound, superintendent career paths in a study of the benefits and hiring patterns of male superintendents. Place-bound superintendents benefited from district knowledge, experienced longer tenures, had a good reputation in the district, had difficulty initiating change, challenges with authority and group management, and felt a forced need to tighten existing policies. Districts usually hired place-bound superintendents when satisfied with current school functioning. Conversely,

career-bound superintendents had a better bargaining position leading to higher salaries and better benefits, greater flexibility, and less aversion to change, but felt mandated to enact change (even when seemingly unnecessary), expected to implement new policies and expand staff, and generally expendable. School boards hired career-bound superintendents to initiate change in the face of unacceptable school performance. Moreover, insiders were well-known in districts and often avoided relocation or commute time increases while outsiders often experienced the inverse.

> Carlson went on to categorize the behaviors of male insiders and outsiders: The insider…adapts or modifies his performance to fit the office. … The place-bound superintendent seems to derive status from the office; he does not bring status to it. …He performs within the framework established by the predecessor rather than by creating a new framework. The performance of the outsider, on the other hand, does add something to the role. The office is modified rather than the person. His performance changes the office and … holds possibilities of increasing the status of the office (Carlson, 1961, p. 227).

Considering the presence of gender biases in the hiring process, the malleability of either the professional or the profession seems important. If school boards customize insider superintendents to the needs of the district and outsider superintendents customize the position to personal and district needs, school boards may consider the benefits/risks of hiring a female to district goals, while females consider the (dis)advantages of locales to professional growth.

Employment Queuing Theory

Considerations related to superintendency acquisition are conceptualized by Tallerico and Blount (2004) under Employment Queuing Theory, which posits that candidates rank positions by desirability (job queue) in direct parallel to employers' ranking of candidates by attractiveness (labor queue) resulting in the best jobs going to the most preferred candidates. Women hold the agency to rank jobs by hierarchy of desirability—by locale here—in direct parallel to districts' rankings. Tallerico and Blount go on to define three potential outcomes of female incorporation into school leadership: resegregation, ghettoization, or integration. Resegregation reflects the migration of female dominance in the classroom to the superintendency akin to "White Flight" where a segregated group moves into a potentially desegregated occupation only to find themselves once again segregated. Ghettoization would bring women into leadership positions under lower wages with fewer benefits and higher work demands similar to practices in much of the modern business world. Integration would create a gender-blind view of these roles resulting in a more equal distribution by gender in school leadership potentially fraught with the same challenges of the Colorblindness movement (see Kang and Lane, 2010). Considering this framework, women are empowered by job queuing, but must overcome issues created by labor queuing that drive suboptimal school leadership feminization discourses. Applied to this study, women may use insider-outsider career paths to navigate gender-biased labor queues in ways that would reflect their own hierarchies

of desirability using considerations situated in socio-cultural contexts rather than stand-alone motives.

Second-Generation Gender Bias

Women navigating career paths to avoid gender biases may actually be avoiding second-generation gender bias rather than more explicit forms of gender bias. Second-generation gender bias refers to hidden barriers to women's success such as a lack of role models, organizational structures and practices historically designed to fit men's lives, fewer available professional network opportunities, and cultural expectations (Ibarra et al., 2013). "Second-generation bias does not require an intent to exclude; nor does it necessarily produce direct, immediate harm to any individual. Rather, it creates a context—akin to "something in the water"—in which women fail to thrive or reach their full potential" (Ibarra et al., 2013, p. 6). As such, women might use an insider path to capitalize on networking opportunities unavailable through outsider paths or pursue jobs in districts with a history of female leaders to avoid organizational and cultural structures that inhibit female career progression.

Stereotype Avoidance

Dawley et al. (2004) hypothesized that the insider route would be more advantageous to female applicants in helping them overcome the societal perceptions that leadership is a male trait. They noted:

> People tend to rely on past experiences or stereotypes when a situation is new, ambiguous, or stressful. Because of this, people are less likely to rely on stereotypes when they deal with a person that they know well or if they are in situations in which they have had previous experience. Thus, the more well known a female successor is to her organization, the more likely that she will be judged on previous impressions and performance, not on stereotypes (p. 681-682).

When extended to female superintendent aspirants, gender biases and stereotypes might be more easily overcome by a woman who is well-known or an insider in the district; thus, driving our hypothesized benefit via an insider or nearby-district career path.

The Pennsylvania Superintendency

Pennsylvania provides a unique environment for superintendency research with 500 school districts, each with their own superintendent and many with additional assistant superintendents. These districts are often small and close together providing opportunities for inter-district networking and communication, which allows leaders to self-promote to more than one district. Close proximity allows cross-district moves without relocation or significant commute time changes. Furthermore, Pennsylvania employs a greater percentage of female superintendents than the national average with 29% females (as compared to 27% nationally) as of the 2014-2015 school year (PDE, 2015), and has experienced sizeable turnover in the superintendency with 104 new hires for the 2014–2015 school year. Together, these factors provide an ideal platform for the study of female superintendency career paths.

The Study

The purpose of the present study was 2-fold. First, the study sought to understand how men and women aspiring to the superintendency perceived the insider vs. outsider career paths in relation to achieving their goals. Second, the study investigated both the overall gender gap and whether gender differences existed in hiring patterns of insiders/outsiders by school boards through an examination of current Pennsylvanian school superintendents' first superintendent positions. The research questions were as follows:

(1) Does a district leadership gender gap currently exist in Pennsylvania?
(2) How do assistant superintendents aspiring to the superintendency in Pennsylvania perceive and act on career paths and does this differ by gender?
    a. Which career path do assistant superintendents consider the most optimal, and what influences this perception?
    b. Do preferences and application histories align with perceptions of optimality?
(3) Which career path did current superintendents in Pennsylvania follow to gain their first superintendent position, and what influenced their choice of track?

In addition to providing recommendations for women aspiring toward the superintendency, findings from this study contribute to the understanding of the underrepresentation of women in leadership and the need for gender awareness and equity in school leadership hiring practices.

RESEARCH DESIGN AND METHODS

Participants

A list of all Pennsylvanian superintendents and assistant superintendents, obtained from the Pennsylvania Department of Education (PDE), directed a search for the email addresses of those administrators. Of the 748 administrators, 687 active email addresses were obtained through school district website searches of which 460 were superintendents and 228 were assistant superintendents. Each potential participant was emailed up to three times with a request to participate in an online survey. After 2 months of data collection, 295 of the 687 emailed administrators responded, resulting in a response rate of 43%. Of these respondents, 100 identified as assistant superintendents or central office staff and 195 identified as superintendents resulting in individual response rates of 44 and 42%, respectively.

Survey

The researchers developed a survey inquiring about participants' career paths inclusive of preferences, perceptions, commute/residency changes, and district familiarity. The survey, designed and administered through Qualtrics Software, comprised of multiple choice (quantitative) items and open response (qualitative) items, which differed for each participant based on previous answers identifying current position, chosen/preferred career path, and related items. The survey was piloted with 10 university personnel (including a current assistant superintendent and retired superintendent). Prior to responding to the survey, all participants electronically signed an informed consent form that included the consent to publish statistics from their data and direct quotations providing no identifying information were included.

Quantitative Data Analysis

After the survey response period ended, data were extracted from Qualtrics and imported into SPSS for analyses. Data were dummy coded and missing data were not included in analyses. Descriptive statistics and chi-squared tests were used as appropriate to investigate the findings. Chi-squared tests are appropriate for determining differences when data represent frequencies, compared data are mutually exclusive, each participant can contribute only one point of data for each test, the groups are independent, there are two categories of data, and data are derived from a simple random sample (Field, 2013). The sample used here is considered random as the entire population of Pennsylvania administrators was aimed for inclusion and the responding principals were not controlled. Another assumption of the chi-squared test is that the assumed value for at least 80% of cells is five or more. Some data did not meet this assumption, so for all analyses inclusive of the "nearby district" and/or "both paths" options, a secondary analysis was run collapsing nearby district into "outsider path" and excluding "both paths" responses to increase sample cell size and analytical accuracy. All secondary analyses were run using identical analytical methods to the original analysis. A *post-hoc* power analysis was conducted using G*Power (Faul et al., 2007, 2009), a statistical program that determines power and sample sizes, and effect sizes were calculated with eta squared tests.

Qualitative Data Analysis

Qualitative survey items were analyzed using a dual-cycle deductive approach (Creswell, 2013; Maxwell, 2013; Patton, 2014). During this analysis, data were analyzed thematically in relation to the question items during initial coding. Emergent themes were refined during the secondary coding cycle and further contextualized with the data to create meaning. Themes were triangulated for credibility via literature comparison, expert review (two superintendents and two assistant superintendents), and coding by a second researcher (Patton, 1999). Support for themes was confirmed by direct quotations.

The Mixed Methods Design

The use of a concurrent mixed methods was most appropriate for this study because it allowed for sensemaking of both numerical trends and analysis of the present phenomenon (Creswell and Plano Clark, 2018). Use of a phenomenological qualitative approach empowers researchers to study the lived experiences and understand the perspectives of individuals (Patton, 2014). Combining this approach with chi-squared tests allowed the researchers to look at patterns in superintendency acquisition and application, which better contextualized and informed the data findings.

Limitations

As is typical of any location-based study, results may only describe Pennsylvanian superintendents and aspirants and not generalize to the population at large. Similarly, this study suffered from low power due to a small sample size as is typical of administrative research. Finally, exploration of intersectionalities could not occur in this data. The school leader demographics in Pennsylvania have an established low level of racial/ethnic diversity and salary-linked homogeneity of socio-economic status making such data uninterpretable and thus not collected. In fact, as of 2010 only 6% of superintendents responding to a national survey identified as African American or Hispanic/Latino (Glass, 2000). Sexual/romantic orientation (see Diamond, 2003) was also excluded due to high levels of controversy potentially stemming from persistent homophobia (Blount, 2000, 2003, 2005; Tooms, 2007; Williams, 2018). Studies inclusive of race/ethnicity, sexual/romantic orientation, and related demographics remain of critical importance and should be conducted using a more qualitative and intimate approach to account for the low sample size requirements and sensitive nature of topics.

FINDINGS

Of the 228 assistant superintendents and 460 superintendents contacted, 290 leaders responded to the survey. Ninety-two assistant superintendents and 192 superintendents completed the entire survey resulting in response rates of 40.4 and 41.7%, respectively. Participant demographics are presented in **Table 1**. Chi-squared tests revealed superintendent level (full or assistant) differed significantly by both gender and age, Gender: χ^2 (1) $= 19.61$, $p < 0.001$, $\phi = 0.260$, CI 95% [0.160, 0.388]; Age: χ^2 (9) $= 18.39$, $p < 0.05$, $\phi = 0.252$, CI 95% [0.174, 0.381].

Assistant Superintendents
Superintendency Pursuit

A chi-square test of independence indicated superintendency aspirations differed significantly by gender, χ^2 (1) $= 6.31$, $p < 0.05$, $\phi = 0.265$, CI 95% [0.059, 0.448], with gender explaining 26.5% of the variance in superintendency interest. Males aspired toward the superintendency 1.3 times more often than females. Despite interest in the superintendency, only 40.3% of female aspirant superintendents previously applied for superintendent jobs; however, this difference was statistically insignificant suggesting application history did not differ by gender, χ^2 (1) $= 0.83$, $p = 0.361$. The relationship between interest in the superintendency and application history by gender is displayed in **Figure 1**.

Of the 39 assistant superintendents who had already applied for a superintendent position, 53.8% applied exclusively to positions outside their district with an even split of the remaining applicants applying to either exclusively internal or both position locales. A chi-square test of independence indicated that application history was independent of gender despite trends as displayed in **Table 2**, χ^2 (2) $= 2.33$, $p = 0.311$. This independence was maintained in the planned secondary analysis (see Quantitative Data Analysis), χ^2 (1) $= 0.16$, $p = 0.690$.

TABLE 1 | Descriptive data by gender.

	Male		Female		Total	
	%	n	%	n	%	n
Position[a]						
Superintendent	74.6	144	23.3	48	66.2	192
Assistant super.	51.1	45	48.5	47	31.7	92
Age						
25–35	1.0	2	1.0	1	1.0	3
36–45	25.9	50	20.6	20	24.1	70
46–55	44.6	86	52.6	51	47.2	137
Older than 55	28.5	55	25.8	25	27.6	80
Years in Position						
<1 year	15.5	30	16.5	16	15.9	46
1–3 years	33.2	64	34.0	33	33.4	97
4–6 years	28.5	55	38.1	37	31.7	92
7+ year	22.8	44	11.3	11	19.0	55
Total[b]	66.6	193	33.4	97	100.0	290

Percentages are subgroup representations across gender unless otherwise stated.
[a] *Positions do not include data for central office personnel. These 6 respondents represent 2.0% of the total sample.*
[b] *Percentages across TOTAL represent those of males or females across the sample.*

Perceptions

Career path perceptions are displayed by gender in **Figure 2**. A chi-square test of independence revealed that career path preferences did not significantly differ by gender, χ^2 (3) $= 7.66$, $p = 0.054$. In secondary analyses, the relationship between preference and gender was significant, χ^2 (1) $= 6.81$, $p < 0.01$, $\phi = -0.38$, CI 95% [-0.583, -0.100], indicating notable differences in preferences by gender when preferences existed. A chi-square test of independence indicated perceived optimal career path did not significantly differ by gender, χ^2 (3) $= 6.01$, $p = 0.111$; however, secondary analyses revealed a significant relationship explaining 29% of the variance between the perceived optimal career path and gender in those considering either path advantageous, χ^2(1) $= 4.11$, $p < 0.05$, $\phi = -0.289$, CI 95% [-0.537, -0.040]. Qualitative analyses revealed four themes of career path perception: interpersonal factors, intrapersonal factors, applicant traits, and district traits. **Table 3** demonstrates the sub-themes supporting the major themes by gender and career path.

Superintendents
Career Path

A chi-square test of independence revealed that superintendents' initial career paths to the superintendency did not significantly differ by gender., χ^2 (1) $= 2.09$, $p = 0.149$. Superintendents appeared to increase commute times rather than relocate and did not consider themselves well-known in hiring districts when following outsider career paths as demonstrated in **Table 2**. A chi-square test of independence demonstrated that both commute time and relocation were independent of gender, commute: χ^2 (2) $= 1.58$, $p = 0.453$; relocation: χ^2 (1) $= 0.11$, $p = 0.743$. No female superintendents reported being well-known
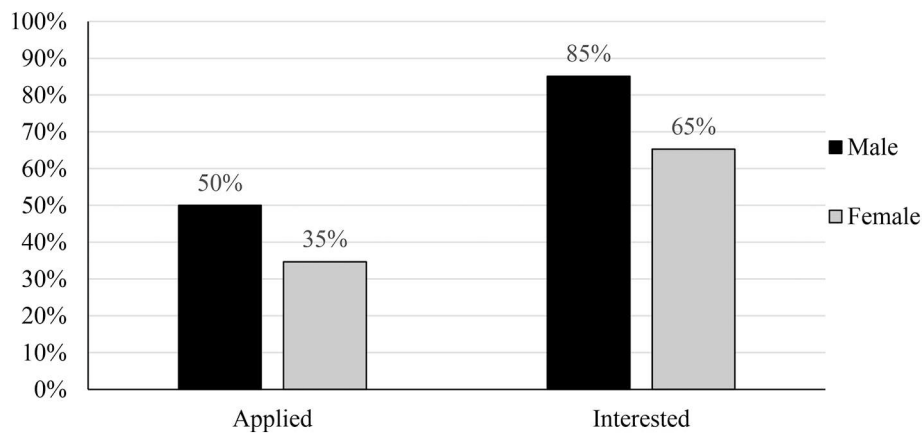
FIGURE 1 | Assistant superintendents who are interested in the superintendency and those who already applied by gender.

in hiring districts indicating a difference of note despite the inability to accurately calculate a valid chi-squared value (zero cell size error).

Perceptions

Most superintendents believed their career path choice helped them achieve their current position as demonstrated in **Figure 3**. A chi-square test of independence found perceptions of career path helpfulness differed by the chosen career path, χ^2 (1) = 18.82, $p < 0.001$, $\phi = 0.320$, CI 95% [0.187, 0.427], and explained 32% of the variance between perception of career path helpfulness and chosen career path. Insiders perceived the insider career path as beneficial toward their career goals more often than outsiders. There were no significant relationships when career path benefit was examined in relation to gender using chi-squared tests for gender and insider benefit, χ^2 (1) = 0.28, p = 0.596; outsider benefit, χ^2 (1) = 0.22, p = 0.881; or benefit of insider vs. outsider, χ^2 (2) = 2.10, p = 0.351. The qualitative sub-themes supporting the four major themes of career path perception are displayed in **Table 3**.

DISCUSSION

The Gender Gap

The gender gap in school leadership persists in Pennsylvania based on statistically fewer female superintendent and assistant superintendent respondents than male respondents. In fact, females made up only 33% of the entire responding sample and only 23% of the superintendent sample. The proportion of female superintendents in this study aligned with state data indicating that 29% of superintendents were female. Conversely, assistant superintendents were relatively balanced with only a 2% difference between the representation of males and females. Although this seems to indicate a promising future for gender equality in the superintendency, interest and application patterns suggest perpetuation of inequities.

Aligning with trends in recent literature, male assistant superintendents were 1.3 times more likely than their female

counterparts to report interest in the superintendency (Glass, 2000; Superville, 2016). Such a discrepancy is alarming because it provides a clear mechanism for the perpetuation of the gender gap in district leadership. If women remain uninterested in the superintendency, males will continue to drive educational leadership and related decision-making with more male-oriented understandings, priorities, and approaches. Furthermore, a continued male over-representation in the superintendency has the potential to reinforce stereotypes that only men can lead effectively. Researchers must begin to investigate this disinterest and explore strategies to attract more women to top-level leadership positions in education.

This female lack of interest in the superintendency gains further prominence when considered as a factor contributing to the gender discrepancy in leadership. Women often enter the superintendency later in their careers, which may perpetuate gender discrepancies (Glass, 2000; Lane-Washington and Wilson-Jones, 2010; Robinson et al., 2017). This study failed to confirm such findings in current superintendents, finding a relatively equal male:female distribution by age range, where the largest difference by gender was only 8% (46–55 age group). Superintendents tended to be older than assistant superintendents, but gender distributions were similar across age groups for each position. This indicated that female superintendents and assistant superintendents represented similar age groups but could not determine at what age positions were entered. Future studies should consider adding an additional survey item to address this limitation.

Even so, women may begin their leadership journey at later ages. Assistant superintendents demonstrated a slightly more discrepant age group distribution although no significant differences were present. While 83% of both male and female assistant superintendents were in the albeit broad 35 to 55 years old age range, male superintendents represented the first decade more frequently than females who more frequently represented the later decade. This delayed superintendency progression by women is also reflected in AASA's 2015 data (Robinson et al., 2017) and The New York State Council of School

TABLE 2 | Summary of quantitative data.

| | Insider | Nearby | Outsider | Both | |
	%	%	%	%	n
Assistant Superintendent					
Application history (m,f)	23.1 (18.2, 29.4)	NA	53.8 (50.0, 58.8)	23.1 (31.8, 11.8)	39
Preference	48.6 (35.0, 65.6)	20.8 (30.0, 9.4)	4.2 (5.0, 3.1)	26.4 (30.0, 21.9)	72
Optimal application route	41.7 (37.5, 46.9)	18.1 (25.0, 9.4)	8.3 (12.5, 3.1)	31.9 (25.0, 40.6)	72
Application History	30.0 (26.7, 33.3)	NA	70.0 (73.3, 66.7)	NA	30
*Preference***	66.0 (50.0, 84.0)	NA	34.0 (50.0, 16.0)	NA	53
*Optimal Application Route**	61.2 (50.0, 78.9)	NA	38.8 (50.0, 21.1)	NA	49
Superintendent					
Path to first Superintendent position	52.3 (49.3, 61.2)	NA	47.7 (50.7, 38.8)	NA	189

| | Yes/Increased | No/Decreased | Unchanged | |
	%	%	%	n
Assistant Superintendent				
Did you apply for the superintendency in the past?	40.3 (45.0, 34.4)	59.7 (55.0, 65.6)	NA	72
Are you interested in the superintendency?*	76.7 (88.4, 66.0)	23.3 (11.6, 34.0)	NA	90
Superintendent				
Do you think your chosen path was helpful?	83.2 (82.6, 84.8)	16.8 (17.4, 15.2)	NA	184
Did you have to relocate for the superintendency?	36.7 (37.5, 33.3)	63.3 (62.5, 66.7)	NA	90
Were you well-known in your new district?[†]	20.9 (26.0, 0.0)	79.1 (74.0, 100.0)	NA	91
Did your commute time change?	47.3 (43.2, 63.6)	21.8 (22.7, 16.7)	30.9 (34.1, 18.2)	55

*p < 0.05, **p < 0.01, [†]difference by gender established but not statistically testable.
Top percentages represent overall proportion of responses in category. Bottom percentages represent the proportion of responses by gender (males, females). Italicized data indicate items recategorized dichotomously as insider or outsider. Responses of "nearby" were grouped with "outsider" responses and "both" responses were dropped.
NA, not applicable.

Superintendents (NYSCoSS)'s 2016 data demonstrating possible generalizability of findings. In their report, NYSCoSS wrote:

> Where the differences [between men and women] remain stark are the significantly higher proportion of unmarried/unpartnered women, and the higher proportion of men with school-aged children. Given the time and stress demands of the superintendency, much more work needs to be done to understand these differences and whether (or perhaps, how) traditional gender roles around family responsibility impact the path to the superintendency (NYSCOSS, 2016, p. 6).

Although this study only begins to explore the effects of those paths and how to work around any related biases, the presence of related findings confirms the need for more research investigating such impacts.

Cultural changes present a possible mechanism for age similarities despite district leaders' genders. As the NYSCOSS (2016) study indicated, family responsibilities are no longer defaulted to the female household leader. In fact, the typical modern American nuclear family consists of dual earners often sharing many parental responsibilities (Lindsey, 2016). These dual earning families often engage in egalitarian marriages where, "partners share decision making and assign family roles based on talent and choice rather than traditional beliefs about gender" (Lindsey, 2016, p. 235). This counters concerns related to the maternal wall (see Williams, 2003) where women are limited in their ability to pursue career goals earlier in life, if at all, due to the requirements of motherhood. As both men and women share previously feminine duties, effects of the maternal wall may become weaker, allowing women to enter leadership roles earlier. Indeed, only male superintendents cited
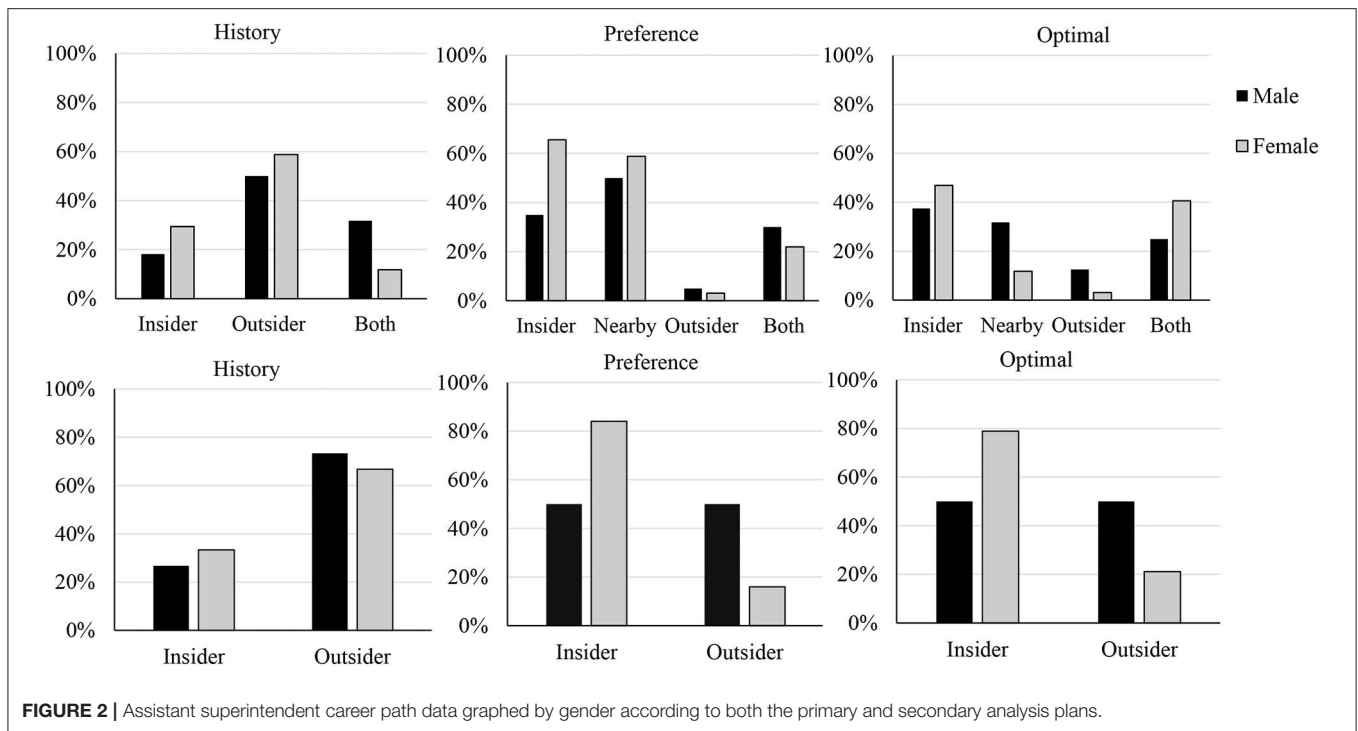
FIGURE 2 | Assistant superintendent career path data graphed by gender according to both the primary and secondary analysis plans.

family as a factor contributing toward their superintendency career path choice. One assistant superintendent described his current disinterest in the superintendency as follows:

> There are currently several positions available in districts throughout Pennsylvania. I have three daughters in school and I do not wish to pull them from school to relocate. Nor do I wish to become a weekend Dad! I will not sacrifice taking care of my own children to move away to take care of everyone else's children. My "Dad cap" is more important to me than a "Superintendent's cap" at this point in my life.

As familial gender roles continue to blur, more flexibility may emerge in the career paths of both men and women in education despite the pattern where males are more likely to have children while superintendent (Robinson et al., 2017).

Assistant Superintendents' Career Path Perceptions and Preferences
Optimal Career Path

Assistant superintendents aspiring to the superintendency typically considered the insider career path most optimal for acquiring a superintendent position based mainly on interpersonal factors within their current district such as reputation and relationships, which is consistent with the findings of Kelsey et al. (2014). Assistant superintendents also discussed the importance of district familiarity as a secondary factor supporting perceived optimality of the insider career path. One assistant superintendent wrote:

> "[I have] 30 years in district and [worked in] a variety of roles. I have developed strong trusting and respectful relationships with members of all stakeholder groups. I know the district well, at all levels and departments."

In a characteristic statement of the insider respondents, this assistant superintendent discusses his history (reputation), relationships, and familiarity as reasons for thinking that the insider career path provides the best chance for becoming a superintendent. Another assistant superintendent mentioned her relationships and reputation as replacements for a lack of previous superintendent experience:

> "I do not have experience as a superintendent and believe I would be more likely to be seriously considered by the board in my current district, where they know me and my work."

These assistant superintendents appeared to consider interpersonal factors important to creating an advantageous path to the superintendency through an insider career path; however, less than half of all assistant superintendents (even when separated by gender) considered the insider path optimal when options of "equally effective" or "nearby district" were available choices.

The second largest group of assistant superintendents consider neither the insider nor the outsider career path to the optimal career path toward a superintendent position. A comparable proportion of female assistant superintendents considered no career path optimal and the insider path most optimal; meanwhile, a smaller proportion of male assistant superintendents considered no career path optimal than those

TABLE 3 | Summary of qualitative results.

| Reasons for:		Optimality[a]			Efficacy[b]		Choice[b]	
Theme		Insider	Nearby	Outsider	Insider	Outsider	Insider	Outsider
Interpersonal factors	M	Relationships Reputation	Networking		Relationships Reputation		Suggested/Mentored	Poor Relationships
	F	Relationships Reputation	Reputation		Relationships Reputation		Suggested/Mentored	Poor Relationships
Intrapersonal factors	M	Familiarity Family Location	Location		Familiarity Financial		Family Familiarity Timing	Family Location Ready for Change
	F	Familiarity	Location	Family	Familiarity		Familiarity Location Timing	Location Ready for Change
Applicant traits	M		Qualifications			Experience New Ideas New Perspective	Drive to Help Opportunity	
	F		Qualifications			Experience New Ideas New Perspective	Drive to Help Opportunity	
District Traits	M	Opportunity Coaching Request to Apply	Super's Age Opportunity	Super's Age Opportunity	Super's Age Opportunity Request to Apply	Opportunity	Predetermined Transition Request to Apply	Better District Opportunity Request to Apply
	F	Coaching			Request to Apply		Request to Apply	Better District Opportunity Request to Apply

[a] Based on assistant superintendent responses.
[b] Based on superintendent responses.

considering the insider path or a nearby path most optimal. Nevertheless, at least one quarter of each gender and nearly one third of the full assistant superintendent sample reported no perceived advantages to the insider, outsider, or nearby career paths.

Approximately one-fifth of assistant superintendents considered the nearby district career path most optimal with a substantially larger proportion of males than females responding in this way. This finding is unexpected because the high density of Pennsylvanian school districts creates the potential for nearby districts to provide benefits similar to insider career paths despite being outside districts. One male assistant superintendent considering the nearby district career path optimal captured this notion in his response:

"By living in a metropolitan area, there are naturally many districts and possibilities of openings."

With the previously found insider career path benefits to female leaders (see Dawley et al., 2004), a high proportion of female assistant superintendents were expected to perceive the nearby district career path in Pennsylvania as optimal. It is possible that nearby districts were not perceived to provide similar benefits as shown by the lack of qualitative responses noting any relationship to nearby districts. In the only female response noting location
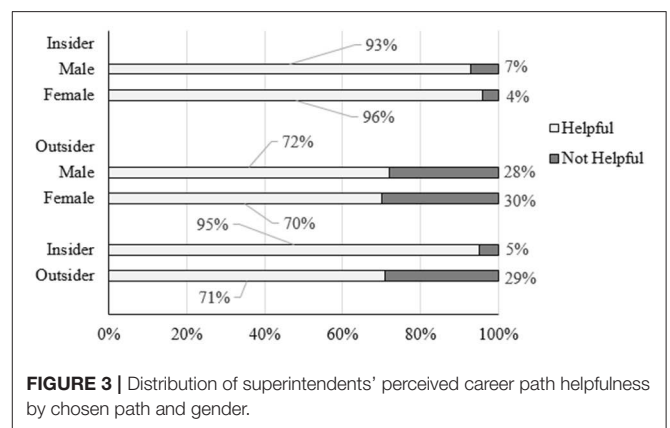
FIGURE 3 | Distribution of superintendents' perceived career path helpfulness by chosen path and gender.

as a reason to consider the nearby district optimal, the assistant superintendent wrote:

"At this time, I do not have any intention of applying for a superintendent position in my current district due to the distance from my home. I believe a superintendent must live in very close proximity to the district in which he/she leads."

Here, it is unclear if the respondent realized "nearby district" referred to a district near to her current district rather than one

close to her residence. More distinct defining of the "nearby district" career path may be necessary to better understand perceptions of the path by female assistant superintendents in Pennsylvania.

Male assistant superintendents considered the nearby district career path most optimal based on the age of his current superintendent, professional networks, location, and experience. One male assistant superintendent clarified the driver of superintendent age in stating:

"…our current superintendent is young, very successful, and likely to be in my current district for some time, which means my chances outside the district are probably better."

Others demonstrated the potential of the nearby district career path could mirror that of the insider path. One wrote:

"I have established networks as an assistant superintendent and believe that my reputation would be a positive in a local district."

While a second male assistant principal noted:
"Born and raised in the same county. Familiar with the demographics and the system."

In both responses, the men assimilate the benefits of an insider career path into a nearby district career path by expanding insider benefits to a broader domain where reputation and familiarity reach beyond the current district into those situated nearby.

Outsider career paths were rarely perceived as most optimal for acquiring a superintendent position with only 8.3% of assistant superintendents aspiring to the superintendency choosing the path. Men more frequently perceived the outsider career path as optimal when compared with women, yet both groups perceived other paths or no path at all as more optimal than the outsider path. The most common reason for selecting the outsider path was related to opportunity and older superintendents up for retirement. One assistant superintendent captured this idea succinctly:

"It is all about the opportunity. Currently, the nearby district superintendents are new or newer."

Outsider career path potential seems more directly linked to lacking opportunity in current or nearby districts. One assistant superintendent described prior interviewing experiences where jobs went to local alumni despite his repeat runner-up statuses:

"…there is no getting past established nepotistic practices that prevail in the region regardless of the advantages my resume, life skills and military experience bring to the superintendency application process. The end state? I will have to relocate and interview where the need is great and the applicant pool is not as extensively filled with a local favored alum…"

Without local connections, assistant superintendents may feel obliged to move to areas where district needs overcome potential nepotism. Nevertheless, the small proportion of assistant superintendents considering the outsider career path optimal combined with given reasons for insider and nearby district optimality indicate reputations and relationships may drive decreased outsider potential more than nepotism.

To further evaluate, data were dichotomized, and non-preferences were dropped in a secondary analysis. Here, nearly two thirds of included assistant superintendents considered the insider career path most optimal. Interestingly, when this data was delineated into male and female responses, males showed no driving preference with 50% preferring each career path while nearly 80% of females considered the insider path most optimal. This statistically significant difference demonstrates not only a gender specific difference in perceived optimality, but also a difference between how men and women perceive and experience the superintendent hiring process.

Women rising through an insider career path may experience less gender bias due to past experiences and reputations that dismantle typical gender stereotypes (Dawley et al., 2004). Studies demonstrated women led in more effective ways and especially so in domains that would build such reputations and make an impression during interactions with others. Folkman (2015) conducted a study comparing the measured competencies of men vs. women (defined by self-identified gender). In comparing bias about females with the measured competencies, Folkman wrote:

The bias of most people is that females would be better at nurturing competencies, such as developing others and relationship building…[but] the competencies with the largest differences between males and females were taking initiative, practicing self-development, integrity/honesty, and driving for results.…while men excel in the technical and strategic arenas, women clearly have the advantage in the extremely important areas of people relationships and communication. They also surpass their male counterparts in driving for results. (pp. 168-169)

These competencies provide a mechanism for building a strong, positive leadership reputation, which may create an advantage for women when using the insider career path. Nonetheless, the potential need of female assistant superintendents to use a specific career path demonstrates a continuing second-generation gender bias (see Ibarra et al., 2013). If second-generation gender bias is—in fact—a culprit in the school district leadership gap working through a potentially necessary use of insider career paths, then mechanisms for overcoming such bias are required. Ibarra and colleagues suggested that just by educating people about second-generation gender bias both women and men begin to develop work arounds and even break down some of the hidden barriers. In the same sense, district hiring committee and female assistant superintendents might benefit from second-generation gender bias awareness building if the insider career path is actually more optimal for aspirant superintendents.

Application History
Assistant superintendents did not seem to apply for jobs based on their perceived optimal career paths. Despite considering the insider career path most optimal, more than half of the sampled assistant superintendents applied for superintendent positions only as an outsider. Although outsider application

histories seem counterintuitive to perceptions of the insider path as optimal, there is only one district where a candidate might apply as an insider and 500 districts in Pennsylvania where the same candidate could apply as an outsider. Some of these outsider application histories may simply be driven by a lack of superintendent turnover in the assistant superintendent's current district, which mimics assertions of those considering nearby district career paths as optimal due to young and effective superintendents in their current district. Another possible mechanism of the outsider applications could be alignment with preferences as opposed to optimality perceptions.

Preferred Career Paths

Preferences did not align with patterns seen in application histories but aligned with those seen in optimality perceptions instead as displayed in **Figure 2**. More females preferred a specific career path than considered a specific path optimal, while males more often considered a specific path optimal than preferred either path. This is congruent with males' near exclusivity in citing district traits as contributing to path optimality. Females provided more intra- and inter-personal reasons for perceived path optimality, which may stem from preferences. Counter to our hypotheses, men more than doubled women in likeliness to consider a nearby district as the most optimal career path despite the potential of these districts to offer similar advantages of familiarly as home districts; however, women preferred both insider and nearby districts confirming hypothesized outcomes. When dichotomized, the differences in preferences and perceived optimality by gender are stark. This may suggest that women are tied to home districts, hold relationships important, or oppose change more frequently than men; however, without related qualitative data no clear determinations of the roots of this substantial gender difference are possible. With striking resemblance to patterns in perceptions of optimal career paths as demonstrated in **Figure 2**, an integration of optimal career path with preferred career path warrants further exploration.

Superintendents' Career Path Patterns and Perceptions

Career Paths

Similar proportions of superintendents entered their first superintendency position as insiders and outsiders both overall and for males; however, a slightly higher proportion of female superintendents entered their first position via the insider career path. Although statistically insignificant, this trend indicates at least a slight advantage of the insider career path for females and mirrors recent data (Robinson et al., 2017).

Superintendents often attributed their career path choice to intrapersonal factors despite career path. While insiders reported choices based on familiarity and timing, outsiders reported location. Of particular interest, only men responded as choosing a career path based on family. One man provided the following reasons for choosing the outsider career path: "Familiarity with the district. Avoid relocating my family." Despite research around the maternal wall and structures facilitating second-generation gender bias (Williams, 2003; Ibarra et al., 2013), only men seemed to feel the concerns of family life when choosing how to approach

the superintendency. This may result from a higher incidence of having children while superintendent as was found in AASA's 2015 Mid-Century assessment (Robinson et al., 2017).

Second to intrapersonal factors, insiders frequently noted planned transitions and applicant traits drove their career path choice. This fusion is well-described in a female superintendent's words:

> "I did not apply for my position. However, having an in-depth knowledge of the district and having engineered many of our major initiatives, definitely provided me with insight into the qualities and skills necessary to keep our district on its current trajectory of ongoing improvement."

Outsiders most often attributed their choice to district traits including opportunity (or a lack thereof) and a better overall district. One male outsider superintendent wrote: "The superintendent at my previous district will be there for several more years…I would have stayed if the job would have been available." A female respondent noted, "Inside position not open." while another male outsider respondent placed opportunity in conjunction with intrapersonal factors:

> "Many different factors. The Superintendency was not open in my district at the time; the Superintendency was something I was striving for at the time of my move. I was told I was going to make a great Superintendent. I felt it was the right time to make the move."

Responses seem to indicate superintendents tend to consider the district fit and personal fit when making outsider decisions.

Interpersonal factors were infrequently mentioned for both insiders and outsiders. Similarly, outsiders rarely noted planned transitions and never noted applicant traits as choice drivers. Only one male insider attributed his career path choice to opportunity, a district trait.

Open response items indicated location (intrapersonal) and school district quality (district trait) were more important for men than women as shown in male responses such as, "I liked the district and it decreased my travel time," and, "Good district close to home." It is possible only men had the opportunity to be selective about districts due to women's need to overcome bias. One woman wrote, "You generally have to overcome the way you are viewed. If you've worked in district, have done a great job, there is a concern that your area will not be sustained. I think it's a perception issue." Nonetheless, data trends indicated that women experienced an increased commute time more often than men when becoming superintendent although neither gender typically relocated for a superintendency position.

Only men reported being "well-known" when moving to the superintendency as an outsider. Second-generation gender bias may drive this issue through networking challenges such as the "old boys" network and fewer external networking opportunities, but the advantage of relations and mentorship is undeniable (Kelsey et al., 2014). Women and school districts should work toward making external connections to facilitate nearby district opportunities and awareness. A male superintendent using the

outsider career path from out of state summed up the potential of Pennsylvanian school district density, "I moved from a state which had 24 superintendents to one which had 500. The opportunities were greater to become a superintendent outside my district…"

Perceptions of Career Path Efficacy

Although neither career path appeared drastically more effective when looking at position acquisition proportions, the insider career path remains lucrative. Insider career paths offer a single job opportunity as opposed to outsider career paths offering multitudinous opportunities—as many as 500 in Pennsylvania alone. As such, opportunities to employ an insider career path are often scarce. With over half of all women entering the superintendency through this career path, one must consider how the insider path's advantages may better align with the needs of female applicants.

Overall, superintendents believed their career path was helpful with 83% of all responses suggesting helpfulness. When broken into male and female, the response distributions were nearly identical to the overall responses. However, perceptions of career path efficacy were statistically different when separated by insider and outsider paths. More insiders considered their career path helpful than outsiders, but with little differentiation by gender as displayed in **Figure 3**.

Approximately 96% of female superintendents agreed that the insider path was beneficial to their career progression. Many women cited intrapersonal factors, applicant skills, and district traits as reasons for the efficacy of the insider career path. One female superintendent explained:

> "I was promoted from Principal to Assistant Superintendent to Superintendent within the same district over a 12-year period. My work ethic and competence was known to the Board."

Here, reputation and familiarity seemed to develop a relationship where bias might be avoided.

About 93% of male superintendents choosing the insider career path also considered it very effective citing the same contributors as women (inter- and intra-personal factors and district traits). Aside from the many responses reporting requests to apply for superintendency positions, a characteristic male response was:

> "I had experience with the district - understanding the district's culture and expectations from the community. I demonstrated an ability to lead and help the district continue to move forwards and help students and teachers succeed."

Like female insiders, male insiders linked career path efficacy with reputations and relationships.

Although a lower proportion, most outsiders considered their career path helpful in attaining their first superintendent position. Outsiders almost exclusively associated path efficacy with applicant traits such as experience and potential to bring new ideas and/or perspectives. A female using the outsider path wrote, "I brought fresh ideas and a broader view of education. I

had experienced [in] the educational world outside of my current district." A male using the outsider path further explained:

> "Many times an outsider can take a different perspective. An outsider does not have connections to anyone and can be objective. As an outsider, one must work on developing relationships with all stakeholders before attempting to transform any components of the district. If drastic change is the direction of the board, it is much easier for an outsider to do so."

When districts require change, this superintendent suggested outsider career path potential increases similar to Carlson's (1961, 1972) findings. This mimics responses citing more opportunity as a driver of outside career path efficacy. Nonetheless, major change is infrequent leading to a potentially infrequent outsider benefit scenario.

Superintendent-Assistant Superintendent Congruence

While superintendents' career path usage was relatively equal, assistant superintendents applied as outsiders more often, but they preferred and perceived the insider path as more optimal. When delineated by gender, males matched the hiring data in preferences and perceptions, but continued to apply as outsiders more often. Females better approximated the hiring data in application history but differed more on perceptions and preferences with much higher proportions citing insider paths. This disconnect is not entirely surprising for application history due to the potential for many more outsider application opportunities; however, the perceptions and preferences fail to facilitate more effective career path use—especially for females. These gender differences are reflective of the occupational sex segregation through differential job queue agency as explored in Tallerico and Blount's (2004) work. Despite job queuing by hierarchy of desirability, females must match a biased labor queue that appears to find more attractiveness in male applicants. As such, men have more agency to act on desirability hierarchy facilitating a potential ghettoization of women entering the superintendency where less attractive jobs go to female applicants.

Differing opinions about outsider career paths support quantitative discrepancies between assistant superintendents and superintendents. It is possible that the experience of acquiring a superintendency position changes the perspectives of aspiring superintendents. With many more opportunities to apply as an outsider, superintendents may develop a clearer understanding of the outsider path in their journey to the superintendency resulting with a more molded perspective. Future studies should explore this change in perspective to develop a better overall understanding of the outsider superintendent hiring process.

Conceptualization in the Pennsylvania Context

Low reports of nearby district potential/preference and lower proportions of perceived efficacy by superintendents employing the outsider career path remain surprising considering the multitude of school districts in Pennsylvania. With such dense

opportunity, aspirant superintendents have potential access to insider-like experiences in technically outsider districts. Nearby districts provide a potential inside/outside career path—especially in Pennsylvania. In the highest density areas, districts are often no more than 5 miles apart. It is here that superintendents are likely to network and become involved in cross-district activities due solely to high proximity. With experience in outside districts, aspirant superintendents might develop similar quality relationships and reputations in those outside districts. When faced with a need for change, the district will have positive views of the potential superintendent but also access to new ideas and perspectives. Based on perceived supports for the efficacy of different career paths, this could create the ideal career path. Perhaps districts and/or superintendents are unaware of this potential or proximity limits the novelty of nearby applicants. Whatever the cause, the potential for the Pennsylvania nearby district career path is heightened by the findings of this study and requires more exploration.

Implications for Future Research

Two pressing issues revealed by this study are the disconnect between successful career paths and application histories and the disconnect between assistant superintendent and superintendent perceptions of career path helpfulness. These issues provide a plethora of future research directions including an exploration the differences in these perceptions and practices through both exploratory and theory-driven methodologies. As inequities are again confirmed in this study, future research must continue to explore gender bias in educational leadership and how this impacts a woman's desire to aspire to the superintendency. Lacking female interest in the superintendency is a major concern warranting future exploration of how educational systems can support female leadership interest and attainment. Studies could explore traditional and non-traditional gender roles in educational contexts, second-generation gender bias, and patterns of choice in female leaders across a variety of contexts to begin to clarify lacking interest in the superintendency.

This study should be replicated in other states with different school district densities and replicated in Pennsylvania including districts known to have strong inter-district relationships and/or programming. Furthermore, more diverse areas should replicate the study in a manner fit to explore intersectionalities inclusive of race/ethnicity, social class, disability status, and sexual orientation. In replication, questions should be reworked to add clarification where possible and different methods of qualitative data collection should be used to better understand why superintendents and assistant superintendents interact with career paths in the ways demonstrated in the data. Some areas for further exploration of career paths derive from desirability and might include peer references, urban-rural classifications, socio-economics, school effectiveness, and school popularity. Furthermore, the additional exploration of these paths from the perspective of hiring committees could allow for a better exploration of how hiring committees could operate more equitably.

Implications for Future Practice

Although superintendent career paths were similar both overall and by gender, even an equal proportion of insider career path employment suggests an imbalance. With the 499:1 opportunity ratio of taking an outsider vs. an insider career path in Pennsylvania, one would expect a much larger proportion of superintendents to follow outsider career paths. Even so, the distributions were similar overall and insider-heavy for females. This trend reflects assistant superintendents' reported preferences and perceptions of optimality, but it seems that something more must occur in the hiring process to produce internal success so often.

If reputation and relationships drive internal superintendent hires, outsider applicants might not be receiving a fair evaluation. This labor queue to job queue imbalance allows an environment where favoritism can strive. As such, hiring committees must remain cognizant of potential nepotism in hiring practices. Alternatively, leaders with proven track records and district familiarity might be the best candidates for the job and simply perceive superintendency attainment rooted more in interpersonal factors than applicant traits despite a reverse perspective by hiring committees. In this condition, positive relationships and reputations would stem from individuals' qualifications for the job and history of demonstrated ability. Regardless, female aspiring superintendents must better understand the efficacy factors involved in career paths in order to procure superintendent positions in more lucrative and bias-mitigating manners.

With only a quarter of superintendents identifying as female, women are undeniably under-represented. Women must begin to use career path agency to overcome an occupational queue imbalance. Women should develop positive reputations and relationships both inside and outside of their district to extend the insider career path advantages to nearby districts where new ideas and perspectives could provide dual insider/outsider career path benefits. Female leaders must explore the current literature to understand what works in hiring in order to overcome second-generation gender bias and begin to equivocate the male to female representation in the superintendency not only statewide, but also nationwide.

Although women infrequently mentioned bias, differences in drivers of career path perceptions suggest a bias in occupational queuing where women enter the superintendency with less available agency in a potentially ghettoized manner. Men mentioned family as driving their career path choices, frequently demonstrating more job desirability allowance. Here, Williams (2003) maternal wall seems more paternal. While possible that women have internalized family responsibilities to the extent that family is not considered when reflecting on career paths, data from this study cannot make that determination. Instead, interventions to removed maternal wall disadvantage become relevant to men as well. All parents could benefit from interventions such as in-district childcare or more flexible work and sick time, but if men use the privileged potency of their voices, such interventions might begin to enter work environments more quickly.

Findings from this study repeatedly indicated the potential challenges associated with second generation gender bias such as male-oriented processes and practices and fewer female networking opportunities. As such, district hiring committees and aspirant superintendents would benefit from formal gender bias training including professional development on the different kinds of gender bias, ways to overcome such biases, and how to move forward toward bias-free interactions without moving into a "blame game" situation (Ibarra et al., 2013; Kahn, 2019). Furthermore, this training could begin to tackle the larger problem of homophobia toward school leaders noted in scholarly literature (Blount, 2000, 2003, 2005; Tooms, 2007; Williams, 2018). Even a general review of implicit biases (unconscious biases) could facilitate more informed behaviors across school personnel.

Summary of Findings

The gender gap not only still exists in Pennsylvania, but also appears likely to continue if changes do not occur. Females remain less interested in the superintendency and seem to have less agency in job desirability choices. This introductory ghettoization only holds the potential to drive more women away from the profession. Women seem to benefit from relationships and reputation but were completely unknown in outside districts during initial superintendency attainment. While the high-density district situation in Pennsylvania offers a potential for nearby districts to mirror internal hiring advantages, lacking mentoring and networking opportunities for women present a barrier to this process. In short, the proportion of female superintendents in Pennsylvania is unlikely to grow based on the present study due to ineffective career path preferences and

perspectives, diminished job queue agency, unknown potential of nearby school district career paths, and the sheer quantity of outside districts as compared to inside districts in Pennsylvania alone. Women must begin to observe effective career paths and expand their agency to avoid potential gender bias and increase the efficiency of their superintendency procurement to empower themselves until the equity of hiring committees increases.

DATA AVAILABILITY STATEMENT

The datasets generated for this study are available on request to the corresponding author.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Lehigh University Institutional Review Board. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

GG is an educational equity consultant and adjunct professor, she teaches methodology courses in educational leadership, advises doctoral students, and focuses her research on unintentional bias in educational leadership through mechanisms such as implicit bias and gender roles. JS is retired Associate Professor at the Lehigh University, she teaches educational leadership, and her research has focused on issues of women in educational administration, both in the USA and internationally.

REFERENCES

Blount, J. M. (1996). Manly men and womanly women: deviance, gender role polarization, and the shift in women's school employment, 1900-1976. *Harv. Educ. Rev.* 66, 318–338. doi: 10.17763/haer.66.2.q24710621vp7k518

Blount, J. M. (2000). Spinsters, bachelors, and other gender transgressors in school employment, 1850-1990. *Rev. Educ. Res.* 70, 83–101. doi: 10.3102/00346543070001083

Blount, J. M. (2003). Homosexuality and school superintendents: a brief history. *J. Sch. Leadersh.* 13, 7–26. doi: 10.1177/105268460301300102

Blount, J. M. (2005). *Fit to Teach: Same-Sex Desire, Gender, and School Work in the Twentieth Century*. Albany, NY: State University of New York Press.

Brunner, C. C., and Grogan, M. (2007). *Women Leading School Systems: Uncommon Roads to Fulfillment*. New York, NY: Rowman & Littlefield Education.

Carlson, R. O. (1961). Succession and performance among superintendents. *Admin. Sci. Q.* 6, 210–227. doi: 10.2307/2390755

Carlson, R. O. (1972). *School Superintendents: Careers and Performance*. Indianapolis, IN: Merrill Education.

Creswell, J. W. (2013). *Qualitative Inquiry and Research Design: Choosing Among Five Traditions*. Thousand Oaks, CA: Sage Publications.

Creswell, J. W., and Plano Clark, V. L. (2018). *Designing and Conducting Mixed Methods Research*. 3rd Edn. Thousand Oaks, CA: SAGE.

Dawley, D., Hoffman, J. J., and Smith, A. R. (2004). Leader succession: does gender matter? *Leadersh. Organ. Dev. J.* 25, 678–690. doi: 10.1108/01437730410565004

Diamond, L. M. (2003). What does sexual orientation orient? A biobehavioral model distinguishing romantic love and sexual desire. *Psychol. Rev.* 110, 173–192. doi: 10.1037/0033-295X.110.1.173

Faul, F., Erdfelder, E., Buchner, A., and Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: tests for correlation and regression analyses. *Behav. Res. Methods* 41, 1149–1160. doi: 10.3758/BRM.41.4.1149

Faul, F., Erdfelder, E., Lang, A-G., and Buchner, A. (2007). G*Power 3: a flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behav. Res. Methods* 39, 175–191. doi: 10.3758/BF03193146

Field, A. (2013). *Discovering Statistics Using IBM SPSS Statistics,* 4th Edn. Thousand Oaks, CA: Sage.

Folkman, Z. (2015). "A study in leadership: women do it better than men," in *Real Women, Real Leaders: Surviving and Succeeding in the Business World* eds K. Hurley and P. Shumway (Hoboken, NJ: Wiley and Sons, Inc.), 165–169.

Glass, T. E. (2000). Where are all the women superintendents? *Sch. Admin.* 57, 28–32. Available online at: https://aasa.org/SchoolAdministratorArticle.aspx?id=14492

Glass, T. E., and Franceschini, L. A. (2007). *The State of the American School Superintendency: A Mid-Decade Study*. Lanham, MD: Rowman & Littlefield Education.

Hare-Mustin, R. T., and Marecek, J. (eds.). (1990). *Making a Difference: Psychology and the Construction of Gender*. New Haven, CT: Yale University Press.

Ibarra, H., Ely, R. J., and Kolb, D. M. (2013). Women rising: the unseen barriers. *Harv. Bus. Rev.* 91, 60–66. Available online at: https://hbr.org/2013/09/women-rising-the-unseen-barriers

Kahn, K. B. (2019). "Conducting a successful implicit bias training," in *Implicit Bias in Schools: A Practitioner's Guide*, eds G. L. Gullo, K. Capatosto, and C. Staats (New York, NY: Routledge), 149–160.

Kang, J., and Lane, K. (2010). Seeing through colorblindness: implicit bias and the law. *UCLA Law Rev.* 58, 465–520. Available online at: https://ssrn.com/abstract=1633071

Kelsey, C., Allen, K., Coke, K., and Ballard, G. (2014). Lean in and lift up: female superintendents share their career path choices. *J. Case Stud. Educ.* 7, 1–1. Available online at: https://www.aabri.com/manuscripts/142015.pdf

Kim, Y. L., and Brunner, C. C. (2009). School administrators' career mobility to the superintendency: gender differences in career development. *J. Educ. Admin.* 47, 75–107. doi: 10.1108/09578230910928098

Kowalski, T. J., McCord, R. S., Peterson, G. J., Young, I. P., and Ellerson, N. M. (2011). *The American School Superintendent: 2010 Decennial Study.* Lanham, MD: Rowman & Littlefield Education.

Lane-Washington, L., and Wilson-Jones, L. (2010). Women superintendents: challenges, barriers and experiences as senior level leaders. *Natl. Forum Educ. Admin. Superv. J.* 27, 2–7. Available online at: http://www.nationalforum.com/Electronic%20Journal%20Volumes/Lane-Washington,%20LaForrest%20Women%20Superintendents%20NFEASJ%20V27%20N4%202010.pdf

Lindsey, L. (2016). *Gender Roles: A Sociological Perspective,* 6th Edn. New York, NY: Routledge.

Lorber, J., and Farrell, S. (eds.). (1991). *The Social Construction of Gender.* Newbury Park, CA: SAGE.

Maxwell, J. A. (2013). *Qualitative Research Design: An Interactive Approach,* 3rd Edn. Thousand Oaks, CA: Sage Publications.

McKinsey and Company. (2010). *The Business of Empowering Women.* McKinsey & Company. Available online at: https://financialallianceforwomen.org/download/the-business-of-empowering-women/?wpdmdl=3335

NYSCOSS (2016). *The 9th Triennial Study of the Superintendency in New York State: Snapshot.* Available online at: https://www.palmaccsd.org/docs/district/superintendent/snapshot%202015%20web%20version%20final.pdf?id=270

Patton, M. Q. (1999). Enchancing the quality and credibility of qualitative analysis. *Health Serv. Res.* 34, 1189–1208.

Patton, M. Q. (2014). *Qualitative Research and Evaluation Methods: Integrating Theory and Practice,* 4th Edn. Thousand Oaks, CA: SAGE.

PDE (2015). *Professional Staff Summary.* Available online at: https://www.education.pa.gov/DataAndReporting/ProfSupPers/Pages/ProfStaffSummary.aspx

Polinchock, J. (2014). *Female elementary principals' perceptions about access to potential career routes to the superintendency in Pennsylvania* (Doctoral dissertation), Bethlehem, PA: Lehigh University.

Rhode, D. L. (2003). *In the Interests of Justice: Reforming the Legal Profession.* Oxford, UK: Oxford University Press.

Robinson, K., Shakeshaft, C., Grogan, M., and Newcomb, W. S. (2017). Necessary but not sufficient: the continuing inequality between men and women in educational leadership, findings from the American Association of School Administrators mid-decade survey. *Front. Educ.* 2:12. doi: 10.3389/feduc.2017.00012

Schein, E. H. (1971). The individual, the organization, and the career: a conceptual scheme. *J. Appl. Behav. Sci.* 7, 401–426. doi: 10.1177/002188637100700401

Skrla, L. (2000). The social construction of gender in the superintendency. *J. Educ. Policy* 15, 293–316. doi: 10.1080/02680930050030446

Smith, J. (2011). Agency and female teachers' career decisions: a life history study of 40 women. *Educ. Manage. Admin. Leadersh.* 39, 7–24. doi: 10.1177/1741143210383900

Sperandio, J., and Devdas, L. (2015). Staying close to home: Women's life-choices and the superintendency. *J. Educ. Adm.* 53, 335–353.

Superville, D. R. (2016). Few women run the nation's school districts. Why? *Educ. Week* 36, 1, 10–11, 13. Available online at: https://www.edweek.org/ew/articles/2016/11/16/few-women-run-the-nations-school-districts.html

Swers, M. L. (2002). *The Difference Women Make: The Policy Impact of Women in Congress.* Chicago, IL: University of Chicago Press.

Tallerico, M., and Blount, J. M. (2004). Women and the superintendency: insights from theory and practice. *Educ. Admin. Q.* 40, 633–662. doi: 10.1177/0013161X04268837

Tooms, A. (2007). The right kind of queer: fit and the politics of school leadership. *J. Sch. Leadersh.* 17, 601–360. doi: 10.1177/105268460701700503

West, C., and Zimmerman, D. H. (1987). Doing gender. *Gender Soc.* 9, 125–151. doi: 10.1177/0891243287001002002

Williams, I. (2018). "LGBT school leaders: exploring the experiences and challenges of LGBT school administrators," in *AERA Online Paper Repository. American Educational Researcher Association Annual Meeting* (New York, NY).

Williams, J. C. (2003). Beyond the glass ceiling: the maternal wall as a barrier to gender equality. *Thomas Jefferson Law Rev.* 26, 1–14. Available online at: http://repository.uchastings.edu/faculty_scholarship/806

Young, M. D., Marshall, C., and Edwards, T. (2018). "Left out: gender and feminism in the educational leadership curriculum," in *Educational Leadership as a Culturally-Constructed Practice: New Directions and Possibilities*, eds J. Wilkinson and L. Bristol (New York, NY: Routledge), 189–207.