

“THE REVOLVING DOOR:” IDENTIFYING CAUSES OF TEACHER TURNOVER IN A
CHARTER MANAGING ORGNIZATION

By

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For every student who ever asked, “Are you coming back next year?”

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EXECUTIVE SUMMARY

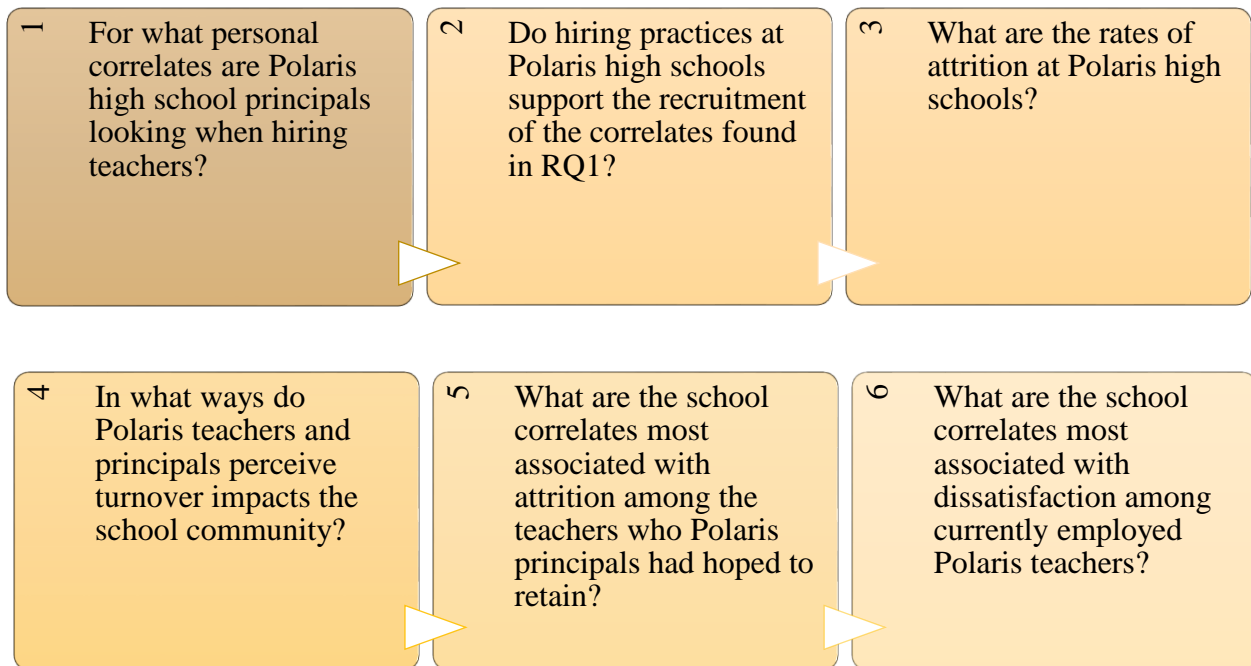
Teacher turnover is unusually high in Polaris Academies¹ high schools. Between its second and third year, Polaris Academy Leadership Charter High School (PAL), one of the Brooklyn Polaris high schools, held an attrition rate of 46%, essentially replacing half its staff. Polaris Academy Charter High School's (PACHS), another Brooklyn-based Polaris high school, attrition rate has grown steadily since 2014, reaching its highest attrition rate of 37% this past year, more than double the national average of teachers leaving public schools (National Center for Education Statistics, 2013). Early data from the 2021-2022 school year suggests a continuation of this trend as PACHS has faced six midyear departures in just the first two months. This attrition could prove even more problematic as the nation faces a pronounced and growing teacher shortage, with fewer candidates to fill vacancies. While PAL and PACHS principals recognize that attrition is a problem, they have only been able to speculate as to the primary reasons for turnover. This study aims to better understand the primary causes of attrition at Polaris high schools and discern what steps to take to improve retention within their teacher workforce.

Of the ten Polaris Academies high schools, two were selected for this comparative case study aimed at better understanding this problem: Polaris Academy Leadership Charter High School (PAL) and Polaris Academy Charter High School (PACHS). PAL and PACHS are two Brooklyn, NY-based, "high-performing," often dubbed "no-excuses" charter high schools housed under the Charter Managing Organization (CMO) Polaris Academies (Polaris). While PACHS was founded in 2008, PAL was founded only four years ago. Despite existing for different lengths of time and in different regions of Brooklyn, as two of four Polaris high schools in Brooklyn and two of ten Polaris high schools total, they are similar in how they operate, which is much the goal of the CMO.

¹ Pseudonym

This project first examined the literature on teacher turnover generally and specifically within CMOs. As this literature emphasized, my review focused on a number of specific areas understood as relevant to and causes of turnover; specifically this review explored hiring practices and a number of school culture and job satisfaction indicators, i.e. working conditions, autonomy, influence, culture, and principal effectiveness. Given the expansiveness and diversity of factors empirically associated with attrition and retention, this study used Nguyen’s (2018) Conceptual Framework of Teacher Attrition and Retention to codify and organize the myriad factors associated with attrition and retention. Nguyen (2018) argues for three primary categories of factors influencing teacher attrition and retention: (1) personal correlates, (2) school correlates, and (3) external correlates.

Based on the problem, review of the literature, and the chosen attrition and retention conceptual framework, **I developed the following research questions to guide this study:**



Through analysis of interviews with principals, recruitment personnel and departed teachers, focus groups of new and veteran teachers, Polaris high school staff records, and Polaris Academies recruitment literature, **I identified the following findings:**

Findings	
Finding 1	Both principals sought to hire, keep, and promote teachers who have similar personal correlates, particularly in experience, and teachers who demonstrate presence, perseverance, receptivity to feedback, and strong content knowledge.
Finding 2	Analysis of staff records and teacher interviews demonstrate that school hiring practices are not maximizing the recruitment or procurement of the personal correlates from Finding 1.
Finding 3	Analysis of staff records demonstrates that teacher attrition at PACHS and PAL is well above the national average.
Finding 4	Teacher attrition negatively impacts students, staff, and school leaders, and this negative impact is compounding and reifies attrition.
Finding 5	Teachers and school leaders unanimously agree that the hours required to work at Polaris are a primary cause of dissatisfaction and attrition.
Finding 6	Participants across interviews and focus groups named work environment combined with relational demography as important causes of dissatisfaction and attrition. Specifically, they described a school environment of student joylessness - a culture hyper-focused on student achievement sustained by racist disciplinary practices and one lacking in opportunities for non-academic or academic-adjacent exploration – as a catalyst for dissatisfaction/attrition.
Finding 7	While almost every participant cited professional development as a reason for joining the Polaris community, participants described professional development as a source of dissatisfaction and attrition because early development is rigidly grounded in scripted curriculum of <i>Teach Like a Champion</i> execution without broader pedagogical sense-making support. Furthermore, veteran teachers described highly limited teacher development opportunities beyond the first year or two.
Finding 8	While there was a generally high regard for and feeling of support from both PACHS’s and PAL’s principals, teachers consistently named lack of administrative support as a reason for dissatisfaction and attrition. Findings suggest that teachers are dissatisfied because they feel that principals lack true agency for leadership within the larger CMO.

Based on these findings, **this project offers the following recommendations:**

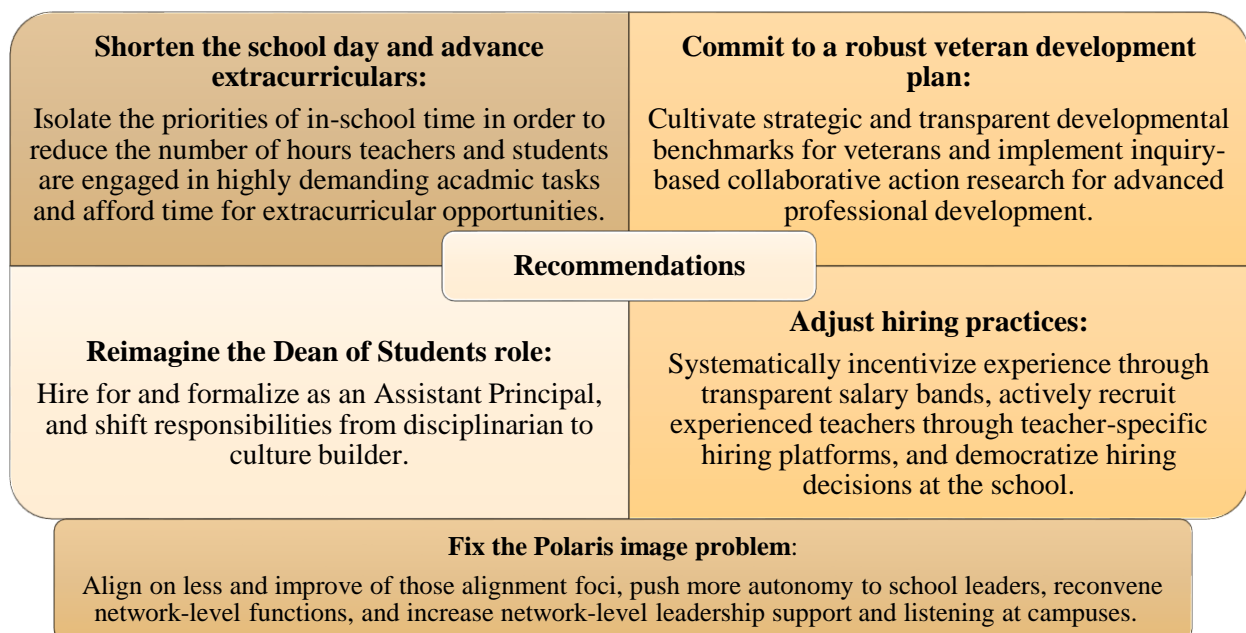


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INTRODUCTION

Polaris Academy Leadership Charter High School (PAL) and Polaris Academy Charter High School (PACHS) are two Brooklyn, NY-based, “high-performing,” often dubbed “no-excuses,” charter high schools housed under the Charter Managing Organization (CMO) Polaris Academies (Polaris), a community I was a teacher and leader within from 2011 to 2019. While PACHS was founded in 2008 and is currently transitioning to its third principal, PAL was founded only four years ago, graduating its first class of seniors this past June. PAL’s founding principal still leads the school. Despite their different ages and different regions of Brooklyn, NY (PACHS is located in the Bedford-Stuyvesant neighborhood of Brooklyn, while PAL is on the border of Brooklyn and Queens in the Cypress Hills neighborhood), as two of four Polaris Academies high schools in Brooklyn and two of ten Polaris Academies high schools total, they are deeply connected and quite similar in how they operate.

Both individual schools and the CMO at large, which I know well from my eight years teaching and leading in the Newark region of the CMO, are experiencing a high degree of turnover among its teaching staff. For instance, I calculated, because the figures were not available, that between its second and third year, PAL held an attrition rate of 46%, essentially replacing half its staff, while simultaneously almost doubling in size. Such turnover is yielding a consistently high percentage of new teachers, who, the research on new teacher efficacy demonstrates, are far less effective in their first three-years (Clotfelter, et al., 2010; Harris & Sass, 2011; Kane, et al., 2008; Ladd, 2008; Rivkin, et al., 2005; Rockoff, 2004; Sass, 2007). This turnover is particularly problematic in the pronounced and growing teacher shortage that the country is currently facing (García & Weiss, 2019; Steiner & Woo, 2021). One only needs to Google “teacher shortage” to be inundated with articles describing the scale and ramifications of

this national teacher shortage. School leaders at Polaris believe that this turnover, and the resulting large contingency of new teachers, may be leading to a range of further problems for the community: lack of content knowledge and pedagogical content knowledge in teachers, a diminished sense of community for students and faculty, and regular and intense strain on veteran teachers and leaders, while costing the school significantly. And, if research on teacher turnover is a guide, this steady stream of new teachers will have negative implications on students in the form of increased student discipline referrals and decreased student achievement (Podolsky, et al., 2019).

PAL and PACHS's school leaders are concerned about the impact of attrition on their school and are eager to improve retention. As a former member of the larger CMO, I share their urgency. Therefore, the purpose of this project is to better understand the specific causes of attrition for each school, and for the CMO more broadly, in order to offer recommendations for proactive retention strategies.

CONTEXT

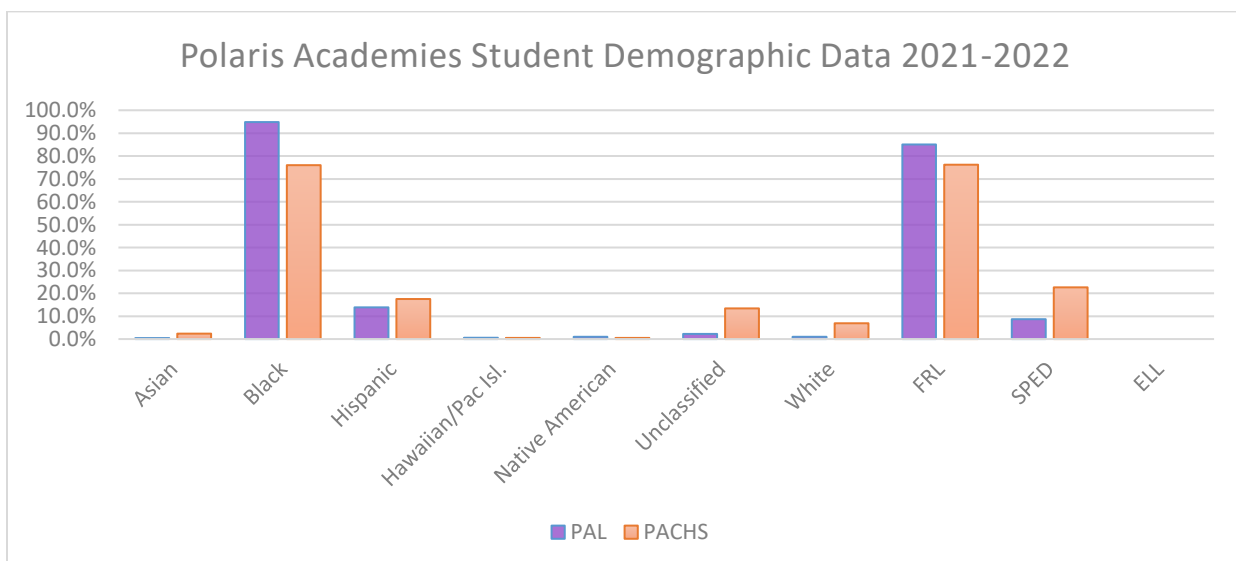
As mentioned, Polaris Academy Leadership Charter High School (PAL) and Polaris Academy Charter High School (PACHS) are two “high-performing,” often dubbed “no-excuses,” charter high schools housed under the Charter Managing Organization (CMO) Polaris Academies (Polaris). Managing Organizations represent a large contingent of schools within the school-choice movement and public education at large: Miron and Gulosino (2013) report that managing organizations manage 36% of all charter schools, while Woodworth, et al. (2017) of Stanford’s CREDO reported that, in 2014-2015, CMOs, specifically, accounted for 22% of charter schools nationally. While the specific definition of CMO varies, generally a CMO is “an organization which operates at least three separate charter schools” and “will control every aspect of the schools’ operations, including curriculum, personnel policies, operating policies and finances” (Woodworth, et al., 2017, p. 2). And while some reports will aggregate for-profit and non-profit CMOs, this project will borrow from Roch and Sai (2017) and “distinguish among charter schools managed by for-profit education management organizations (EMOs) and non-profit charter management organizations (CMOs) and stand-alone charter schools” (p. 951). Given that Polaris is a non-profit organization, it qualifies as a CMO, one that is “proud to operate 55 schools serving 21,000 students across Boston, Camden, New York City, Newark, Rochester and Troy” (Polaris Academies, 2021), specifically with the aim of making college a reality for students from historically marginalized communities. As stated on their website, they operate “outstanding urban public schools that close the achievement gap and prepare students from low-income communities to graduate from college” (Polaris Academies, 2021).

Indeed, at Polaris, while each school community is its own institution with its own school leaders, each school is ultimately managed by the CMO with school leaders reporting to the CEO,

President, Chief Schools Officers, Superintendents, and Assistant Superintendents. Individual school leaders do hold discretion over a number of quotidian school-based operations such as hiring decisions (though hiring is funneled from a Polaris hiring team), staffing placements, student discipline consequences, staff meetings, etc.; however, through network management and policy, Polaris determines and controls a great deal of the school functioning, even day-to-day practice: personnel policies, curriculum, assessment, teaching modes, professional development sequencing, leadership promotion, budgeting limitations, etc. So, while PAL and PACHS are in different neighborhoods, have existed for a differing number of years, have different principals and teachers, and hold some differences in how they operate, they ultimately have the same institutional DNA and are far more similar than they are different – which, to Polaris, is the goal.

In addition to the institutional DNA shared by both schools, they also share very similar demographics. Both PACHS and PAL are Title I schools that serve an almost exclusively Hispanic and Black student population, over 75% of whom come from homes that are economically disadvantaged as evidenced by PACHS and PAL’s Free and Reduced Lunch percentages. See **Figure 1** below for comparative PACHS and PAL demographic data.

Figure 1: Polaris Student Demographic Data 2021-2022



In addition to sharing similar student demographics, PACHS and PAL share similar faculty and staff demographics. While each school serves communities that are exclusively Hispanic and Black, they employ a large contingent of white faculty and staff: both school staffs were 39% white in the 2020-2021 school year. Notably here, though, Polaris Academies' efforts to diversify have been relatively effective as indicated in **Figure 2** and **Figure 3** below. In 2013-2014, 62% of PACHS's faculty and staff were white, and they have gradually moved to a faculty and staff more representative of its students each year since. Yet, while the number of white faculty and staff has decreased, so has the number of Black/African-American staff members. For example, while 56% of PAL's faculty and staff identified as Black/African-American in 2018-2019, that number has dropped to 37% in this most recent academic year. Similarly, though 43% of the faculty and staff identified as Black/African-American in 2016-2017 at PACHS, that figure has dropped to as low as 25% in 2018-2019 and 29% in this most recent academic year. These decreases, unfortunately, mean a staff less representative of its study body, i.e. PAL student body is 94.8% African American and PACHS is 76%. Drops in Hispanic faculty percentages over time demonstrate the same diminishing representation. While the school community serves a substantial contingent of Hispanic students (13.9% at PAL and 17.5% at PACHS), it does not employ a representative number of Hispanic faculty and staff: less than 10% of both school's faculty and staff identified as Hispanic in this most recent academic year. See **Figure 2** and **Figure 3** below for a graphic representation of staff demographic data.

Figure 2: PAL Staff Demographic Data 2017-2021

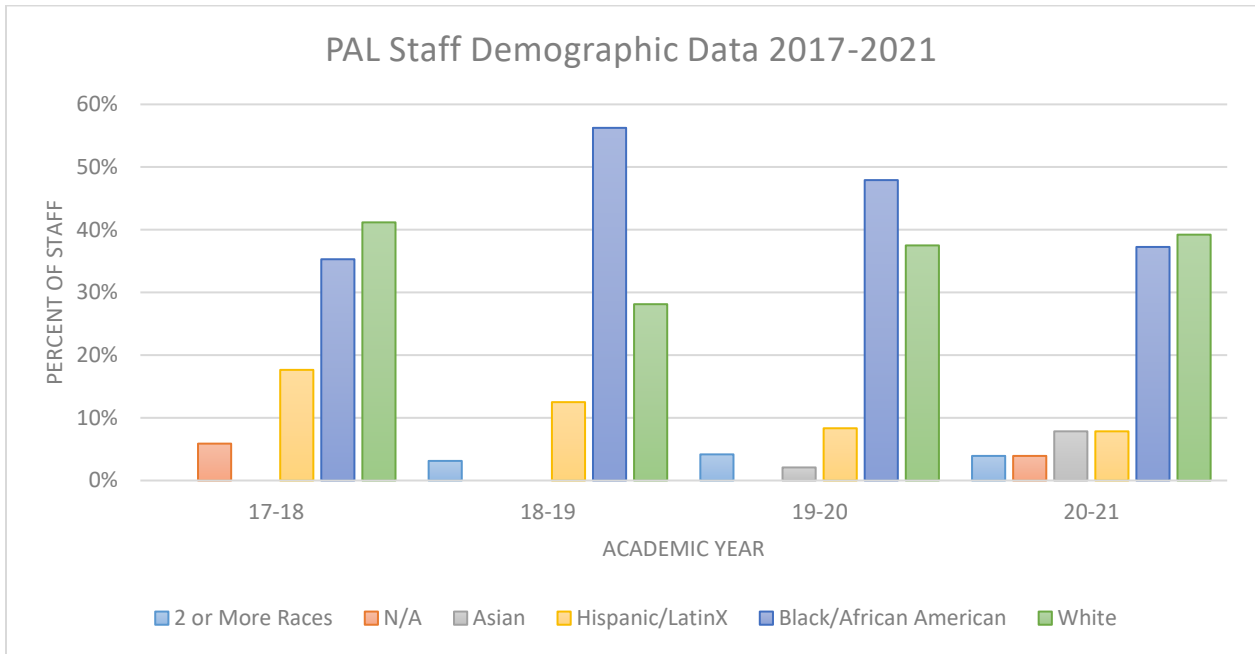
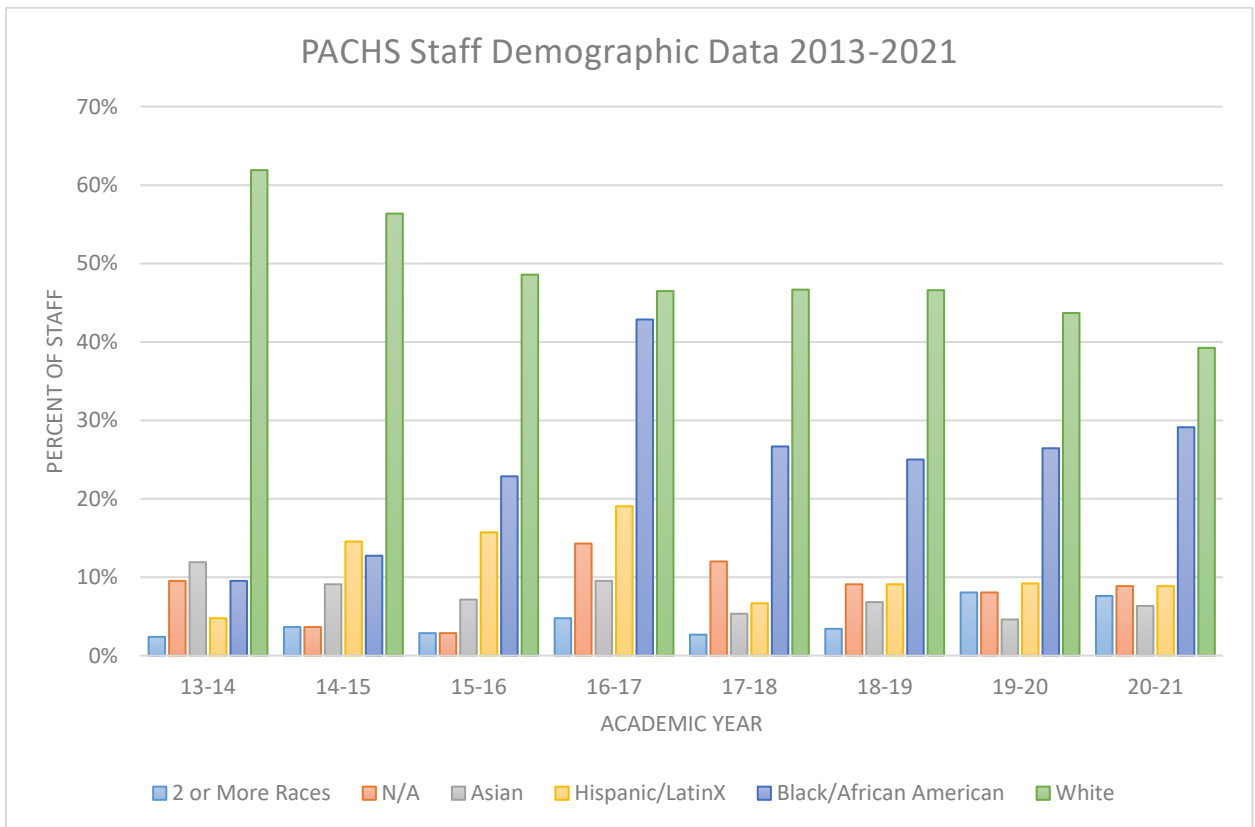


Figure 3: PACHS Staff Demographic Data 2013-2021



Arguably, then, any issue to be researched within a singular school community should also be explored across school communities as the root causes may exist at the CMO-level rather than the individual school-level. PAL and PACHS, in addition to many of the other 53 schools (as ascertained from school leaders and by my many years within the network), share one pervasive problem: teacher attrition. In fact, in the year that I left, the school at which I began my almost decade-long employment with the CMO lost approximately 40% of its staff. The school's principal wondered, "if we are going to recruit smart, ambitious people from these great schools, we are just going to get rocked by 30-40% turnover every three years. Do we bemoan that or do we eat it?" This study aims to support the community in neither; instead it aims to support the CMO in understanding the phenomenon and improving its retention rate.

Teacher attrition impacts so many stakeholders: school leaders, teachers themselves, students, parents, taxpayers, and more. Yet, given the research on the power of principals within school communities (Grissom, et al., 2021), this project will embrace the school leader as the primary stakeholder, engaging with them as the primary point of contact and focusing recommendations toward them. This project simultaneously acknowledges the importance of teachers as key stakeholders through centering their voices and their experiences as the primary data. Furthermore, this project also acknowledges the constraints placed upon principals operating within CMOs, thus triangulating data across schools to identify patterns that might inform the CMO at large beyond individual principals. Therefore, this project aims to support the individual school leaders in both their own school-based decisions and their advocacy to the CMO for policies and practices that will support teacher satisfaction and retention.

PROBLEM OF PRACTICE

High schools in the Polaris Academies community are experiencing a high degree of turnover among its teaching staff. Between its second and third year, PAL, for instance, held an attrition rate of 46%, essentially replacing half its staff, while simultaneously almost doubling in size. While school leaders are aware that turnover is a problem, there is not any clear tracking or disaggregating of turnover data. Further, while leaders know that attrition is a problem, there is only speculation of the primary reasons for faculty departures. This capstone aims to better understand the primary causes of attrition at Polaris high schools and discern what steps might be taken to improve retention, particularly among teachers who school leaders would like to retain.

Such turnover yields a consistently high percentage of new teachers, particularly those new to the profession who the research on new teacher efficacy demonstrates are far less effective in their first three-years (Clotfelter, et al., 2010; Harris & Sass, 2011; Kane, et al., 2008; Ladd, 2008; Rivkin, et al., 2005; Rockoff, 2004; Sass, 2007). Leaders report a range of problems that they view as connected to turnover: lack of content knowledge and pedagogical content knowledge in teachers, a diminished sense of community for student and faculty, and regular and intense strain on veteran teachers and leaders. School leaders' beliefs that such issues are connected to turnover are unsurprising given that the research on teacher turnover suggests a range of negative effects, such as diminished expertise (Podolsky, et al., 2019). As the research on teacher attrition suggests, this stream of new teachers will negatively impact students: i.e. increased discipline referrals and decreased achievement (Podolsky, et al., 2019).

A certain amount of turnover is to be expected in any school community: the 2012-2013 NCES SASS Teacher Follow-Up Survey, for instance, found that 8% of public school teachers move to another school each year, while another 8% leave teaching altogether yearly (National

Center for Education Statistics, 2013). Yet, Polaris Academies far exceeds this national average. Even among charter schools, which the empirical literature on attrition reports high rates of turnover, Polaris's rates are higher. For example, the NCES SASS Teacher Follow-Up Survey reports a 24% turnover rate for charter schools; analysis of staffing data at PAL and PACHS demonstrate a combined attrition rate of 27% since 2013 (National Center for Education Statistics, 2013). PAL and PACHS are eager to improve retention, particularly among those they deem to be a "culture fit:" smart teachers with high expectations who are coachable, professional, and who are bought-in to the mission of the organization. To try to improve retention, PAL and PACHS principals have attempted a number of reforms, e.g. celebrating teacher success, retreats and awards for returning teachers, promotion, listening sessions, and more. Analysis of PACHS and PAL's retention data suggests that any improvements are somewhat limited and not sustained. Therefore, the purpose of this investigation is to discern the primary causes of attrition and dissatisfaction at PACHS and PAL, inform the organization of these primary causes and perceptions, and offer recommendations to support improved teacher retention.

LITERATURE REVIEW

Given the context and the problem of practice, the following literature review explores the literature on teacher turnover generally and specifically in CMOs. As this literature emphasizes, this review focuses on a number of specific areas understood to be relevant to and causes of turnover. Specifically it explores hiring practices (including those specific to CMOs) as relevant to turnover and a number of school culture and job satisfaction indicators, i.e. working conditions, autonomy, influence, school culture and behavior-management practices, and principal effectiveness.

Teacher Turnover is Common in CMOs

Teacher turnover is high. Teacher attrition is high in US public schools and it is growing: one in ten teachers quits within their first year, and some estimates suggest that 50% of new teachers leave the profession within the first five years of teaching (García & Weiss, 2019; Ingersoll, 2003; Ingersoll, et al., 2018; Murnane, et al., 1991; Schlechty & Vance, 1981). And, research on teacher attrition overwhelmingly reports that the crisis of teacher turnover is disproportionately severe in low income communities with historically marginalized students (Engel, 2013; Stuit & Smith, 2012; Torres, 2016a), such as the communities Polaris serves.

The consequences of teacher turnover. This attrition has detrimental consequences. The dearth in qualified teachers and the volatility in schools' teacher workforce negatively impacts students' opportunity to learn, student achievement, and teacher effectiveness and quality (Darling-Hammond, 1999; Jackson & Bruegmann, 2009; Kraft & Papay, 2014; Ladd & Sorensen, 2016; Ronfeldt, et al., 2013; Sorensen & Ladd, 2018). High turnover can negatively impact the educational environment, creating fragmentation in programming and planning and perpetually orienting such programming to accommodate new staff (Guin, 2004; Stuit & Smith,

2012). Guin (2004) suggests that continued teacher turnover can so disrupt the sense of community that teachers feel as though they are working in a school “on the edge” (p. 15). Similarly, Margolis and Nagel (2006) found educator stress led to increased reports of physical and emotional exhaustion, which ultimately yielded an increase in attrition of teachers and a demoralizing effect on remaining staff who questioned the philosophy of the school. They reported: “in this way, teacher stress directly impacted students and threatened the efficacy of the school enterprise” (p. 152).

Furthermore, high teacher turnover has economic implications: the United States spends enormous economic resources replacing departing teachers every year, through recruiting, hiring, placing, and training teachers to work in their schools (García & Weiss, 2019; Synar & Maiden, 2012). While there may be certain short-term benefits such as lower average salaries because of the larger percentages of new teachers, the research on the costs of teacher turnover reveals that the long-term and overall costs are significant. Some estimates suggest that teacher turnover costs the United States billions of dollars, as much as \$7.3 billion dollars per year, and that it costs \$21,000, on average, to fill each vacancy (Carroll, 2007; Carver-Thomas & Darling-Hammond, 2017; García & Weiss, 2019; Learning Policy Institute, 2017; Synar & Maiden, 2012). In addition to the fiscal costs, this constant turnover and shortage could arguably have reputational costs on the teaching profession, thus undermining attempts to professionalize the occupation and exacerbating the crisis (García & Weiss, 2019).

Teacher turnover in charter schools. While attrition rates are quite high nationally, dozens of studies have demonstrated that attrition and school-to-school migration are significantly higher among charter school teachers compared to traditional public school teachers (Harris, 2007; Miron & Applegate, 2007; Podgursky & Ballou, 2001; Renzulli, et al., 2011;

Smith & Ingersoll, 2004; Stuit, & Smith, 2012). Studies engaging multi-year averages reveal national teacher turnover rates of 20% to 25% in charter schools (Gross & DeArmond, 2010; Miron & Applegate, 2007; Silverman, 2012, 2013; Stuit & Smith, 2010). Stuit and Smith (2012) found that the “turnover rate of charter school teachers was twice as high as traditional public school teachers” (p. 268). Furthermore, Roch and Sai (2018) found that teachers “in charter schools managed by EMOs and CMOs have higher levels of migration and attrition intention than do teachers in regular charter schools” (p. 232). Furgeson, et al. (2012) found turnover rates in the 17 CMOs funded by the New Schools Venture Fund to be approximately 20%, though some leaders in the sample reported annual turnover rates of 35%. The figures are consistent across CMO communities: 27% of teachers from the “no-excuses,” “high-performing,” CMO KIPP nationwide left their teaching positions in 2010-2011 (KIPP Foundation, 2012) and 32% left in the 2011-2012 school year (KIPP Foundation, 2013). The literature is, seemingly, in unanimous agreement: teacher turnover is high, higher in charter schools, and highest in school management organizations like CMOs.

While some of the research on teacher turnover has examined this phenomenon from an earlier position in the employment life cycle and explored hiring practices in CMOs, much of the literature focuses its attention on school climate and job satisfaction. As such, this review briefly explores literature on hiring and then turns to research on job satisfaction and school culture.

The Hiring Process Can Be Important for Retention

The importance of the interview. Research on teacher hiring has found that hiring processes can be crucial to teacher satisfaction and retention, often drawing attention to an important goal within the interview process: finding a mutual fit, sometimes called culture fit, through a transparent and informative two-way exchange (Liu & Johnson, 2006; Torres, 2019).

Liu and Johnson (2006) found that a *realistic job preview* is crucial to accurately determining fit, defined as an accurate and reliable depiction of what to expect of the job in the hiring process. Subsequent research suggests that a realistic job preview should provide higher levels of teacher commitment and fit (Ellis, et al., 2017). A number of studies have examined teacher selection methods in high-functioning schools and districts, including charter schools and CMOs (Farrell, et al., 2012; Grissom, et al., 2017; Simon, et al., 2015; Torres, 2019). This research has examined charter principals' preferences in teacher qualities (Jabbar, 2017) and the use of teacher efficacy data in hiring decisions (Cannata, et al., 2017, Grissom, et al., 2017), and this research describes how principals and central office recruitment teams select teachers who fit school/organizational culture in high-performing CMOs and districts (DeArmond, et al., 2012; Simon, et al., 2015).

Finding a “culture fit.” Charter schools, particularly CMO-based charters, seek teachers who are a “culture fit,” and they devote significant effort to ensure culture fit before making offers (Tuttle, et al., 2013). In examining culture fit, Torres (2019) explores two types of “fit” previously defined in research: person-organization fit and person-job fit. Borrowing from Chatman (1989) and Ng and Burke (2005), Torres (2019) defines person-organization fit as “the degree of correspondence between organizational preferences and culture and is operationalized in terms of congruence of values, beliefs, goals and skills” (p. 5). Using the work of Ellis, et al. (2017) and Kristof (1996), Torres (2019) defines person-job fit as “fit with the tasks performed on the job and aspects of the position itself, such as grade level or expertise” (p. 5). Both person-organization fit and person-job fit have been highly correlated with teacher commitment; furthermore, a teacher’s self-rating of their own fit, their perceived self-fit, is strongly correlated with satisfaction, commitment, and intentions to leave (Bogler & Nir, 2015; Youngs, et al., 2015).

And while CMOs vary, Torres (2019) expounds upon the work of Furgeson, et al. (2011) and Lake, et al. (2012), in explaining that “fit is fundamentally important to the teacher selection process in large, high-profile ‘no-excuses’ CMOs..., in large part, because their organizational models are highly defined (even ‘prescriptive’), and shared values/practices are believed to provide student achievement” (p. 5). CMOs, like Polaris, look for teachers who are closely aligned to their college preparatory “mission,” which is marked by “high expectations” for students and staff, longer hours for students and staff, intensive feedback and coaching, and a “do whatever it takes” for student success ethos (DeArmond, et al., 2012; Merseeth, et al., 2009; Torres, 2016b; Torres, 2019; Tough, 2009). Despite the intense working conditions, national CMOs receive hundreds of applications for single positions; yet CMO school leaders find it difficult to find teachers who meet their standards for fit (Angrist, et al., 2012; Tuttle, et al., 2013). In short, CMO principals and network-level leaders often hold rigidly high fit standards and spend significant resources on hiring and developing teachers (DeArmond, et al., 2012). And while Torres (2019) found that recruiters and principals included realistic job previews, even “downselling” the organization to ensure candidates’ expectations were realistic, turnover numbers in CMOs remain high. This high turnover is perplexing given the work CMOs are doing to communicate what to expect and their narrowly high standards for hiring (Angrist, et al., 2012). Further investigation of this phenomenon reveals that, “in surveys and interview data collected before they started the job, teachers initially rated their perceived fit and clarity of the hiring process as high or very high” (p. 3). Yet midyear surveys showed significant drops in teacher perceptions of fit in “areas of person–organization fit, specifically, input in school-wide decision-making and views of discipline” (Torres, 2019, p. 3). As such, research suggests that, to understand teacher turnover in CMOs, one must also look to school culture and job satisfaction.

School Culture and Job Satisfaction Matter for Retention

Indeed, the quick drop in ratings of perceived fit found by Torres (2019) indicate that job satisfaction and school culture are important for understanding teacher turnover in CMOs. And the literature well-validates these instincts. Several studies have indicated that dissatisfaction strongly influences teacher turnover, with some studies suggesting that dissatisfaction with working conditions may help explain why charter schools and CMOs hold higher turnover rates than traditional public schools (Marvel, et al., 2007; Perie, et al., 1997; Roch & Sai, 2017; Stuit & Smith, 2012). The range of literature on the impact of school culture and job satisfaction on turnover is expansive, yet, narrowing that literature to high-performing, so-called “no-excuses,” CMOs specifically points to a few key causal and correlational factors: dissatisfaction with working conditions, difficult relationships with principals/lack of administrative support, limited autonomy, limited input in decision making processes, salary, and policies and practices regarding student misbehavior (Roch & Sai, 2017; Torres, 2014; Torres, 2016).

A rapid change. As previously noted, CMOs generally work to be very transparent in their interview processes, offering a realistic job preview, even “downselling” the organization to ensure candidates’ expectations are realistic (Torres, 2019). Yet, Margolis and Nagel (2006) argue that, while teachers anticipate fit in the hiring process, their actual experience and working conditions are leading to decreased satisfaction and decreased perceived fit. Indeed, Margolis and Nagel (2006) found that, while the newly hired teachers initially embraced the school philosophy/culture and were excited about working in the charter community, the demanding school context, perceived lack of support and acknowledgement, and lack of inclusion in decision-making changed new teacher sentiments towards their communities shortly after their start. The research on teacher attrition reports that teachers are more likely to leave schools

where, for a variety of systemic shortcomings, more demand is placed upon them, such as those with higher percentages of minority students, higher percentages of teacher-student demographic misalignment, higher percentages of students receiving free- or reduced-price lunch, and higher percentages of perceived misbehavior (Perie, et al., 1997; Renzulli, et al., 2011; Shen, et al., 2012), all of which describe a large contingent of “no-excuses,” CMO-managed charters.

Turnover and Working Conditions. Working conditions in charter schools, in particular, may have negative impacts on teachers’ levels of job satisfaction, especially when considering workload and salary relative to traditional public schools (Liu & Meyer, 2005; Reyes & Imber, 1992; Roch & Sai, 2017). Some research has found that charter school teachers are often paid less than traditional public school teachers (Malloy & Wohlstetter, 2003; Ni, 2012), though that they may not be true for CMOs, and a multitude of studies have found that charter school teachers work more hours than teachers in traditional public schools (Angrist, et al., 2010; Hoxby, 2002; Malloy & Wohlstetter, 2003; Ni, 2012). And research has shown that longer working hours and lower levels of pay are likely to increase teachers’ rates of turnover (Allensworth, et al., 2009; Cannata, 2010; Gross & DeArmond, 2011; Roch & Sai, 2017; Stuit & Smith, 2009). Stuit and Smith (2010), for instance, report that teachers who work more than sixty hours per week are 1.6 times more likely to leave than those who work fewer than sixty hours per week.

Furthermore, research on charter schools suggests that higher workloads may be particularly common among teachers in CMO-managed charter schools with cultures that support long work hours (60-80 hours per week) and demanding expectations on teachers to meet the high expectations of their college-preparatory mission and goals (Lake, et al., 2010; Golann, 2018; Roch & Sai, 2017; Roch & Sai, 2018; Torres, 2014; Torres, 2016). While these

workloads may be attractive to some teachers with high levels of commitment to the mission of the school, particularly before experiencing it, these long hours reportedly catalyze burnout, dissatisfaction, and turnover (Lake, et al., 2010; Golann, 2018; Roch & Sai, 2017; Roch & Sai, 2018; Torres, 2014; Torres, 2016).

A number of researchers directly link hours and burnout to attrition. Woodworth, et al. (2008) found that “burnout” is the most frequently provided reason for departure from certain KIPP charter schools due to the intense effort and time put into their jobs, while Vasudeva and Grutzik (2002) found similar findings in newer charter schools. Margolis and Nagel (2006) observed strain on teachers and resistance manifesting in increased teacher absenteeism, reports of emotional and physical exhaustion, and a weakening job performance and satisfaction. Eventually, Margolis and Nagel (2006) found, absenteeism led to the high attrition rate of 57% in the first year and 61% in the second year. Lake, et al. (2010) specifically link the number of hours teaching to exhaustion and burnout. And while there is a robust body of literature linking workload and the workload-salary discrepancy to attrition, Brill (2011) goes on to question the sustainability of teaching at CMOS, and, by extension, the ability for CMOs to scale up their models. In summation, the research on the causes of teacher attrition supports the idea that outsized workload and hours are a strong predictor of teacher turnover. And though Torres (2016) agrees, he also found that some of this effect can be alleviated when teachers have positive perceptions of working conditions and school leadership. Instead, Torres (2016) found that perceptions of the CMO disciplinary system was the most significant predictor of turnover.

Turnover and student discipline. In addition to some of the characteristics common to CMO charter schools, such as longer school days and years, a culture of high expectations for teachers and students, and frequent teacher observation/coaching, the literature on charter school

teacher turnover points to perceptions of school-wide disciplinary systems (e.g. merit/demerit systems, “paycheck” systems, aggressive monitoring of student behavior, suspension policies, etc.) as potential causes for turnover (Angrist, et al., 2011; Fryer, 2011; Lake et al., 2012; Merseth, et al., 2009; Torres, 2014; Tuttle et al., 2013; Whitman, 2008; Wilson, 2009). This, perhaps, is of growing importance as criticism of such “no-excuses” mounts. Reflecting on research from White (2015) and Golann and Torres (2018), Torres (2019) explains that “critics of the no-excuses model argue that strict and uncompromising disciplinary expectations represent a form of cultural racism: privileging white, middle class norms over the cultural strengths of students of color and using methods to ‘control’ these students (e.g., silent hallways, tracking the teacher) that white parents would never accept for their own children” (p. 7). Consequently, a number of researchers argue that the “no-excuses” model and practices may reproduce the same socioeconomic and racial inequity that they aim to combat (Golann, 2015; Sondel, et al., 2019). Torres (2014) suggests that teachers are struggling to embrace and enact this model, while Sondel (2015) found that teachers struggled to manifest their own vision of civic education given the constraints of disciplinary structures.

Torres (2019) found that this rather strict approach to discipline was one of the conditions yielding the largest and most statistically significant drop in ratings of self-perceived fit among new teachers. Golann (2018), for example, in a Lortie-esque sociological study of teachers in a “no-excuses” CMO school community found that teachers adapt to these methods by becoming conformers, imitators, adaptors, and rejecters, with the latter two working to either adapt or totally reject “no-excuses” disciplinary systems. Adaptors and rejecters are far more likely to not “fit” and leave. Kershen, et al. (2018) analyzed interviews of teachers within “no-excuses” schools and found that some teachers become socialized to understand “control as care” in the

discipline method. Torres (2014, 2016a) found that teachers who disagreed with disciplinary methods and the socialization process in “no-excuses” schools were more likely to leave. The evidence overwhelmingly points to the disciplinary climate in “no-excuses” communities to be a preoccupying force for students and teachers, one that may contribute to teacher burnout in CMOs and a clear potential reason for turnover (Brill, 2011; Golann, 2015; Lake, et al., 2010; Woodworth, et al., 2008). The presence, or lack thereof, of teacher autonomy in schools like Polaris is certainly tied to this factor.

Turnover and autonomy. Research on job satisfaction has revealed autonomy, or at least perceived autonomy, to be a critical factor in job satisfaction. This, nationally, is an important professional factor to consider as the nature of teaching itself in the US transforms from an egg crate model of isolated teachers within their own classrooms (Lortie, 1975) operating under a “logic of confidence” (Meyer & Rowan, 1977) where they are rarely evaluated or observed (Lortie, 1975) to a model characterized by greater control brought in by the accountability era in education (Ingersoll, 2003; Mehta, 2013), compelling schools to recouple their myths and ceremonies to their actual work (Hallett, 2010). Consequently, the work of teachers is under greater control and surveillance through standardized curricula, scripted instructions, specified teacher training requirements, and the implementation of teacher evaluation systems (Golann, 2018). In contrast, higher levels of collaboration and support from other faculty and higher levels of autonomy appear to decrease the levels of teacher turnover (Boyd, et al., 2011; Ingersoll, 2001; Ladd, 2011; Smith & Ingersoll, 2004).

And while research on teacher autonomy has revealed that teachers in charter schools appear to have the greater autonomy inherent in the fundamental premise grounding charters (Malloy & Wohlstetter, 2003; Torres, 2014), this autonomy appears limited to stand-alone

charters. Indeed, as CMO communities have worked to codify and systemize their practice and management, research on such schools suggests the pursuit of these scale-based approaches to schooling may lead to different degrees of teacher autonomy than those found in typical stand-alone charters and, potentially, different levels of job satisfaction (Torres, 2014). This phenomenon is captured by one teacher in an interview with Torres (2014): “I think we all as a team thought we were hired to be architects, but in actuality we’re just construction workers, and that’s what’s hard” (p. 10). Hallett (2010) and Ingersoll (2003) both found that accountability policies have pushed school communities to more tightly couple quotidian activity with goals and structures, thus reducing autonomy for teachers in their classrooms. These tightening measures ensure teachers follow set practices to achieve prescribed goals (Rowan, 1990).

It is unsurprising that CMOs, who are attempting to meet accountability metrics and preserve reputation, have leaned on more prescriptive methods. Specifically, research indicates that CMOs may limit the autonomy of teachers as they implement more centralized approaches, including singular curricular and instructional approaches across all of their schools (Bulkley, 2005; DeArmond, et al., 2012; Roch & Sai, 2017; Scott & DiMartino, 2010; Torres, 2014). Torres (2019) found that desired autonomy was one of the conditions yielding the largest and most statistically significant drops in ratings of self-perceived fit among new teachers. Given the importance of autonomy for teacher satisfaction, the research on teacher satisfaction points to input in decision-making as another key factor of school climate yielding positive levels of satisfaction and increased retention.

Turnover and school-wide influence. Another key factor in job satisfaction is influence in school-wide decision making. Indeed, Torres (2014) and Torres (2016) found that, for a third of CMO teachers leaving each year, dissatisfaction with the limited input into decision-making

was an important reason for leaving. Torres (2014), specifically, found that teachers recruited with the promise of being “founding teachers” were disappointed and left because they had little input into designing new policies and practices for the school community – again, perceiving they were hired as “architects,” yet feeling they were, in fact, “construction workers” (p. 9). Roch and Sai (2018) corroborated these findings, reporting that “teachers are less likely to leave when they have greater control over their classroom and greater school-wide influence within their schools” (p. 243), and CMOs limit this input and autonomy in their move to a scale-oriented educational model across all of their schools (DeArmond, et al., 2012; Scott & DiMartino, 2010). While the limitations placed on teacher autonomy and input by CMOs are noteworthy, it is also crucial to note the importance of leadership in mitigating these limitations and promoting satisfaction.

Turnover and Perceptions of Leadership. Research on teacher turnover consistently finds that, across diverse school types and teachers, perceptions of leadership and principal support are among the strongest, most significant predictors of turnover and stability (Allensworth, et al., 2009; Boyd, et al., 2011; Ingersoll, 2001; Johnson, et al., 2012; Ladd, 2011; Marinell & Coca, 2013). Boyd, et al. (2011) and Ladd (2011) specifically, found that, controlling for various measures of school climate and work conditions as well as student composition, perception of administrative support and leadership is the strongest predictor of intentions to leave and turnover for both new and more veteran teachers. Margolis and Nagel (2006) even report that leaders may contribute to the stress of exhaustion, and thus increased proximity to turnover, simply by failing to acknowledge stress levels. Torres (2016) argues that because “school leadership has such a strong and mediating effect on teachers’ decisions to leave, it is important to account for these perceptions in an assessment of the effect of workload on

teachers' decisions to leave CMO schools" (p. 895). The research on school leadership reports that, in schools managed by CMOs, principals are critical to develop a culture that reflects organizational goals, and these leaders provide important support to teachers, particularly through observation and feedback" (DeArmond, et al., 2012; Furgeson, et al., 2012, Roch & Sai, 2018).

Guin (2004) and Toch (2009) both reveal that it can be more challenging for leaders to preserve a strong school culture and effective instructional quality when employing less experienced teachers, who lack the institutional and pedagogical content knowledge of more experienced teachers. These findings extend to leadership, which may well extend to instructional leadership and veteran leadership: leadership turnover can be disruptive to preserving trust, norms, and relationships in a school community (Ronfeldt, et al., 2013). Furthermore, principal turnover is damaging to teacher retention and school performance, especially in low-income, urban communities (Beteille, et al., 2012); the loss of veteranship and secondary leadership is likely to lead to similar results. Torres (2016) posits that this turnover may move beyond impacting individual schools and may "disrupt organizational effectiveness and the ability of CMOs to grow to scale by increasing the organizational costs associated with teacher turnover" (p. 906).

CONCEPTUAL FRAMEWORK

This study uses Nguyen's (2018) Conceptual Framework of Teacher Attrition and Retention, a frame that builds upon earlier teacher attrition and retention frameworks (Borman & Dowling, 2008; Guarino, et al., 2006) with guidance from the employee turnover literature and with attention to the developments in the field of teacher attrition and retention since 2008. To clearly elucidate Nguyen's (2018) framework, this paper briefly explores the framework's foundations in the work of Borman and Dowling (2008) and Guarino, et al. (2006).

The conceptual framework developed by Guarino, et al. (2006) is grounded in the economic labor market theory of supply and demand, and, through this frame, the authors examine literature related to teacher entry, mobility, and attrition. Through their analysis, they found that while race/ethnicity, ability, and family-related and psychological factors are all contributing factors to entrance into the profession, experience, ability, field or specialization, and qualifications were the most important factors in teacher attrition. They particularly came to a few key findings. Teacher attrition is highest for teachers in their first years and highest among white teachers, math and science teachers, female teachers, and teachers with higher measured academic ability. With respect to school based factors, Guarino, et al. (2006) found that schools with high percentages of low-income, minority, and low-performing students tend to yield higher attrition rates. And with respect to policy related factors, they found that higher salary and mentoring can help reduce attrition (Guarino, et al., 2006; Nguyen, 2018). Building on the work of Guarino, et al. (2006), Borman and Dowling (2008) uncovered 60 factors that are empirically associated with teacher attrition and retention and they organized these factors into five categories: teacher characteristics (e.g. age, gender, race/ethnicity, and marital status), teacher qualifications (e.g. teacher training, certification, teaching experience, teacher ability, and field

or specialty area), school organizational characteristics (e.g. urbanicity, size, secondary versus elementary level, and work environment), school resources (e.g. average class size and teaching materials), and student body characteristics (e.g. school's socioeconomic composition, student achievement level, and the racial/ethnic composition of the school).

Nguyen (2018) builds on these two studies through a comprehensive and systematic inquiry into the empirical literature on teacher attrition and retention and through adopting insights from the broader employee turnover literature, in order to develop a scheme for classifying the contributing factors of teacher retention and attrition. Specifically, Nguyen borrows from Cotton and Tuttle (1986) whose study of employee turnover organized the determinants of employee turnover into three categories, or “correlates,” of turnover: personal correlates (e.g. age, gender, education, marital status, number of dependents, ability), work-related correlates (e.g. job satisfaction, salary satisfaction, organizational commitment), and external correlates (e.g. unemployment rate, union presence). Nguyen (2018) also borrows from Griffeth, et al. (2000) and Rubenstein, et al. (2017) who organize the determinants of employee turnover into six and nine categories, respectively. Examining these studies and others (e.g., Maertz, et al., 2007; Ongori, 2007; Porter & Steers, 1973), Nguyen (2018) synthesized the determinants of turnover into three large categories (personal correlates, school correlates, and external correlates) with a number of correlates.

Indeed, Nguyen (2018) argues for three primary categories of factors influencing teacher attrition and retention: (1) personal correlates (composed of teacher characteristics and teacher qualifications), (2) school correlates (composed of school organizational characteristics, school resources, student body characteristics, and relational demography), and (3) external correlates (composed of accountability, school improvement, and work force). While five of the nine

secondary categories are derived from the work of Borman and Dowling (2008), Nguyen (2018) offers four new secondary categories grounded in theoretical rationale and empirical evidence of teacher attrition and retention: relational demography, accountability, school improvement, and work force. **Figure 4** is a visual representation of this conceptual framework, while **Table 1** offers a list of specific factors within each correlate.

Figure 4: Nguyen’s (2018) Conceptual Framework of Teacher Attrition and Retention

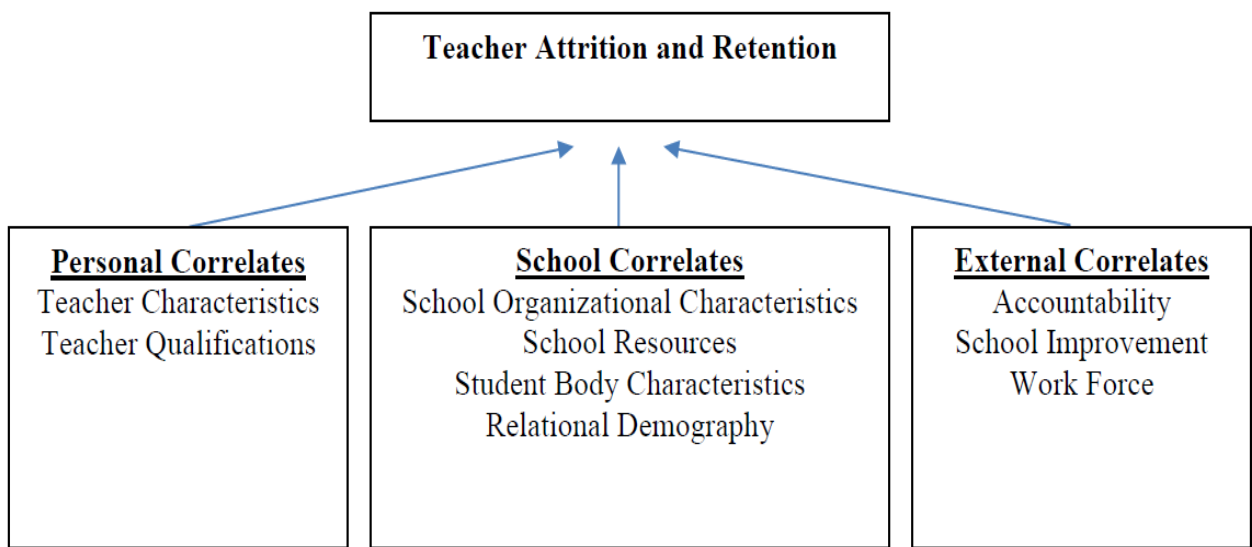


Table 1: Nguyen's (2018) Categories and Determinants of Teacher Attrition and Retention

Personal correlates		School correlates				External correlates		
Teacher characteristics	Teacher qualifications	School org characteristics	School resources	Student body characteristics	Relational demography	Accountability	School improvement	Work force
Age	Ability (test scores)	School size	Expenditure	Student achievement	Tch-princ race/gender match	Assessment impact	Mandated school reform	Employment rate
Gender	Education selectivity	Urbanicity	Class size	Percent minority	Tch-tch race match	Teacher effectiveness	Research-practice partnership	Accession rate
Race/ethnicity	Graduate Degree	Sec. vs elem. level	Classroom assistants	Poverty	Tch-student race match	Merit pay		Late hiring
Marital status	Certification	Private, public, charter	Teaching materials	Percent IEP/LEP		Federal policies (NCLB/ESSA)		Salary
Children	Highly qualified (NCLB/ESSA)	Work environment				Principal effectiveness		Retention bonus
Satisfaction	Internship	Administrative support						Non-teacher salary
Full time Teaching	Specialty area (STEM, SPED)	Teacher collaborations						Union
Distance to school	Experience	Teacher leadership						Tenure
	Prior non-teaching career experience	Professional development						
		Induction mentoring						
		Classroom autonomy						
		Stay ratio						

Note. The first five categories are adapted and expanded based on Borman & Dowling (2008). Stay ratio is the teacher retention rate at the school. Internship includes field placement. Teacher leadership includes teacher influence at the school level. Assessment impact includes evaluation used for school-level decision-making. In comparison, teacher effectiveness score is measured by a composite evaluation score or value-added score.

Nguyen's (2018) framework served this study in myriad ways. In design, this conceptual framework offered a powerful tool for continued exploration and organization of the literature. Given the extensive body of scholarship on teacher attrition, this framework helped point to themes and subthemes that may have been missing, e.g. accession rate. Furthermore, in the design, this conceptual framework served as the foundation for research question and interview question development. And while Nguyen's (2018) framework was foundational in design, its most pronounced utility came in the qualitative analytical support it afforded.

The initial round of coding was semi-open, meaning that, while an open coding process was implemented, open coding began with prescribed codes developed from the conceptual framework, e.g. Personal Correlates (PC): teacher qualifications (PC-TQ), age (PC-A); School Correlates (SC): work environment (SC-WE), administrative support, (SC-AS); and External Correlates (EC): accountability (EC-A), teacher effectiveness (EC-TE). In addition to the coding generation this framework provided, it also provided a helpful organizing tool for patterns emerging in interviews, i.e. placing subthemes into larger thematic categories. This study anticipated, as evidenced through the project questions below, focusing specifically on school and personal correlates so as to support school leaders within their locusts of control; however, the project did preserve external correlates should they have emerged as important in interviews.

PROJECT QUESTIONS

Based on the problem, review of the literature, and the chosen attrition and retention conceptual framework, **I developed the following research questions to guide this study:**

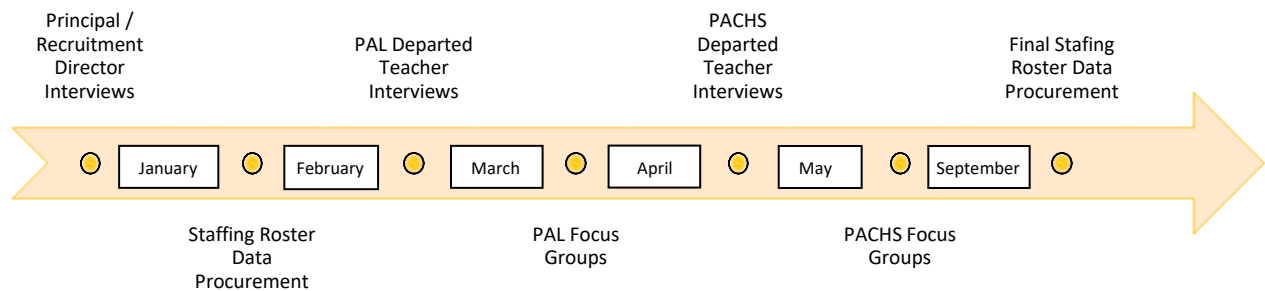
1. For what personal correlates are Polaris principals looking when hiring teachers?
2. Do hiring practices at Polaris high schools support the recruitment of the correlates found in RQ1?
3. What are the rates of attrition at Polaris high schools?
4. In what ways do Polaris teachers and principals perceive turnover impacts the school?
5. What are the school correlates most associated with attrition among the teachers who Polaris principals had hoped to retain?
6. What are the school correlates most associated with dissatisfaction among currently employed Polaris teachers?

PROJECT DESIGN

Data Collection

In order to answer the aforementioned research questions, I drew on a range of data that included staff records, interviews of teachers who have departed the Polaris community, interviews of principals and recruitment personnel, and focus groups with new and veteran teachers currently employed within the organization. See **Figure 5** below for an overview and timeline of data collection.

Figure 5: McCluskey Capstone Data Collection Timeline



Staff records.

To actually calculate each school's attrition rate, I requested staffing records from each school's Director of Operations from specific points in time. For PAL, I procured records dating back to 2017, as the school was founded in 2017, whereas for PACHS I collected records dating back to 2013, as that is both the year prior to the one in which the current principal took over and the year that Polaris Academies underwent a re-organization. After removing non-instructional roles (e.g. operations positions and social workers) and any part-time employees (e.g. part time speech pathologists), I made a list for each year of teachers not appearing on the staff plan who had appeared the preceding year. Each school's principal vetted these lists to ensure the tabulations were accurate. From there, I calculated each year's level of attrition by taking the

number of departed teachers and dividing it by the total number of instructional staff. From here, I was able to visualize and compare attrition levels between years and between schools. While not within the scope of this study, staffing records included substantial additional information, e.g. teacher preceding years of experience, undergraduate/graduate institution, race, gender, etc. Although not complete and in need of tidying, I could use such data in subsequent studies to disaggregate attrition based on specific personal correlates.

Interviews.

Departed teachers. After generating a list of each year's departed teachers from the staffing plan, I first asked principals to identify teachers they would have been interested in retaining as the research question specifically aims to understand the correlates of attrition and migration among teachers the principals had hoped to retain. With this list of teachers, I then created a number of intentional cohorts from which I randomly selected departed teachers for interviews so that a range of perspectives and time frames were present in the data, though no one was interviewed who left prior to 2016 as their perspective may be too far removed from how the school is currently functioning. The cohorts were as follows: departed in 2016 (PACHS only), departed in 2017 (PACHS only), departed in 2018 (PACHS only), departed in 2019, departed in 2020, African American (given the predominating racial demographic of students), men of color, woman of color. After randomly selecting from each cohort, the list was once more vetted through each principal to ensure any particular perspectives of interest were not missing. Once specific names were selected through this randomized cohort sampling, the data was scrubbed for confidentiality and all names were replaced with pseudonyms. A full roster of participant data and pseudonyms can be found in **Appendix A**, while an abbreviated pseudonym roster can be found below in **Table 2**.

I drafted a recruitment email for departed teachers, which I provided to principals so that they could reach out on my behalf. After principals brokered a dialogue between each selected teacher and me, I arranged an interview on Zoom with each teacher in which I asked teachers about their reasons for joining and leaving the Polaris community, as well as their perspectives on the impact of attrition on the community. I designed all questions in the context of this study's conceptual framework to elicit answers to the overarching project questions. Each interview lasted approximately an hour and a half, though it is noteworthy that a number of participants opted to talk beyond that time, describing the experience as cathartic, and over half the participants emailed me after the interview to share additional insights. A full list of interview questions can be found in **Appendix B**. I audio-video-recorded each interview for transcription and analysis purposes.

Principals. To provide a more holistic depiction of culture, attrition, and hiring practices, I also interviewed each school's principal. Given that PACHS's principal has been in his position since 2014 and PAL's principal is the only principal in the school's four years, I did not need to conduct any specific sampling or randomizing practices. Also, given the research on the power of principals within school communities (Grissom, et al., 2021), I prepared additional questions for these interviews that focused on their hiring practices and priorities, their attempts to reduce attrition, their ability to lead within a CMO, and their perspectives on attrition based upon their exit conversations with teachers. As such, I broke up principal interviews over two days. Interview one, which lasted approximately an hour and fifteen minutes, focused on the personal correlates principals most value, hiring practices, and the perceived positive elements of school culture. I designed all questions in the context of this study's conceptual framework to elicit answers to the overarching project questions. Interview two, again lasting approximately an hour

and fifteen minutes, focused on the perceived weaknesses of school culture, beliefs about attrition, and the relationship between individual schools and the larger CMO. A complete list of interview questions can be found in **Appendix B**. I conducted and audio-video-recorded each interview through Zoom for transcription and analysis purposes.

Recruitment. As almost all, if not all, of hired teachers are sourced by the Polaris Academies recruitment office, I was interested in speaking with each school's assigned recruitment professional so as to garner a more complete picture of hiring. I asked each principal to broker a conversation between me and their recruitment professional, and, through this, I learned that PACHS and PAL share the same Associate Director of Recruitment (a person, notably for this study, who left Polaris only days after our interview). After principals connected us through email, I arranged an interview on Zoom with the recruitment professional in which I asked their perspective on the recruitment and hiring process, the recruitment office's relationship with individual schools and the CMO at large, and attrition. I designed all questions in the context of this study's conceptual framework to elicit answers to the overarching project questions. A complete list of interview questions can be found in **Appendix B**. I conducted and audio-video-recorded this interview through zoom for transcription and analysis purposes.

Focus Groups.

While departed teacher interviews provided a great deal of insight into the experience of teaching at Polaris, they were, ultimately, limited in that they can only offer insight into past practice and prior organizational arrangements. Currently employed teachers can (and did) provide much insight into current perceptions of school correlates and satisfaction. Because current teachers could (and did) share many similar sentiments as departed teachers, I was able to gain a deeper understanding of school correlates, more confidence in the findings from departed

teachers, and more clarity into needed changes that could directly impact retention now, rather than in hindsight. As such, I conducted four focus group interviews with currently employed teachers at each school: PAL new teachers, PAL veteran teachers, PACHS new teachers, and PACHS veteran teachers.

To curate these sample groups, I started with the 2020-2021 staffing roster for each school and generated a list of all new teachers within each community as well as a list of each school's veterans (defined by selecting the seven most veteran people on staff). As with departed teacher samples, I then asked principals to identify teachers they would have been interested in retaining as the research question specifically aims to understand the correlates of attrition and migration among teachers the principals hope to retain. From there, I randomly selected seven teachers in each new teacher group. I drafted a recruitment email for each focus group, which I provided to principals so that they could reach out on my behalf.

After principals brokered a dialogue between teachers in each focus group roster and me, I scheduled a focus group at a time when all teachers could attend. While not every teacher did actually attend, for those who did join, I provided some basic framing on how focus groups function and then asked teachers to dialogue about positive and less positive elements of school culture/climate, reasons for joining Polaris Academies, experience and perspective with attrition at Polaris, and experience and perspective between the CMO/school relationship. I designed all questions in the context of this study's conceptual framework to elicit answers to the overarching project questions. Each focus group lasted approximately an hour and a half, though it is noteworthy that a number of participants opted to talk beyond that time and seven participants emailed me after the focus group to share additional insights. A full list of focus group questions can be found in **Appendix B**. I audio-video recorded focus groups through Zoom for transcription

and analysis purposes. A full roster of participant data and pseudonyms can be found in **Appendix A**, while an abbreviated pseudonym roster can be found in **Table 2**

Table 2: Participant Pseudonym Abbreviated Roster

Cohort	PAL Departed	PAL New Teachers	PAL Veteran Teachers	PACHS Departed	PACHS New Teachers	PACHS Veteran Teachers	Principals
Pseudonym	Anthony David Isaiah Phoebe Samantha Sarah	Arnold Beverly Isabelle Marisol Nicholas Rachel	Francesca James Luke	Alexandra Ariel Beatrice Eleanor Isaac Ian Leo	Ethan Henrietta Ines Rebecca Sophie	Barbara Caleb Daniel Jessica Liam	PAL – Rory PACHS - Steven

Data Analysis

Attrition Rate Analysis.

To determine the actual rate of attrition at PAL and PACHS, I procured staffing data for each school dating back to 2013 (to 2017 for PAL). Examining year-over-year staffing plans, I determined which faculty members departed each year. From there, I determined the attrition rate by calculating the number of teachers departed divided by the total numbers teachers employed each academic year. To deepen an understanding of attrition levels over time, I calculated the average attrition over the selected years by adding up all departed teachers divided by the total number of employed teachers across all academic years of interest. Through similar arithmetic, I calculated average attrition rate for both schools combined. I tabled and visualized all calculations for ease of access and use.

Interview/Focus Group Analysis.

I conducted all sixteen interviews and four focus groups on Zoom, recording and auto-transcribing through Zoom’s transcription software. During each interview, I took detailed notes with particular attention to answers that specifically spoke to the overarching research questions and the correlates of teacher attrition and retention. Most often these included answers that spoke

to reasons for departure, beliefs about school culture, beliefs about attrition, perceptions of school leadership, and the school's relationship to the CMO. In an effort to recognize potential patterns within each interview and codify the most pronounced ideas while still fresh in my memory, I synthesized interview running record notes immediately following each interview, documents that consolidated many pages of notes into a one-page analytic memo (Bogdan & Biklen, 2007).

After creating the one-page memo for each interview, I then cleaned each transcript to ensure that the final transcripts accurately reflected the words of each participant. This practice afforded an additional analytical pass at the interview data, and, where necessary and productive, I added to the one page memos with new insights from these additional passes through each of the interview transcripts (Bogdan & Biklen, 2007).

I created an initial code book using Nguyen's (2018) Conceptual Framework of Categories Teacher Attrition and Retention (see **Figure 1**). I borrowed directly from his Categories and Determinants of Teacher Attrition and Retention (see **Table 1**) as a codebook for my data because it offered a helpful and comprehensive starting point of well-researched determinants of attrition (Richards & Morse, 2012). I occasionally added new correlate codes based on data in the transcripts that did not appear to align with Nguyen's codes. For example PAL teachers spoke frequently about being a "founder," so I added the code "founder. The full Qualitative Analysis Codebook can be found in **Appendix C**, while an excerpted sample of the Qualitative Analysis Codebook can be found below in **Table 3**. I indicated all new codes added to Nguyen's (2018) Framework with an asterisk.

While I independently coded all transcripts, a secondary researcher coded four transcripts (25% of the interview/focus group data) in an effort to strengthen the reliability of the codebook

itself and the coding process. This process enhanced my confidence in my coding given that an objective party coded in a reasonably similar manner, with only slight nuanced discrepancies appearing periodically (Richards & Morse, 2012). Finally, upon completion of coding, I returned to the research questions and tested my preliminary answers using the findings from my coding (Bogdan and Biklen, 2007). I looked to discern which codes were most prominently featured, e.g. hours was the most prominent code. I also looked to see which codes were often joined, e.g. hours and extracurriculars often appeared together. Code frequency and alignment well-supported my preliminary answers. See **Figure 6** below for a visual representation of the analysis process.

Figure 6: McCluskey Capstone Analysis Process

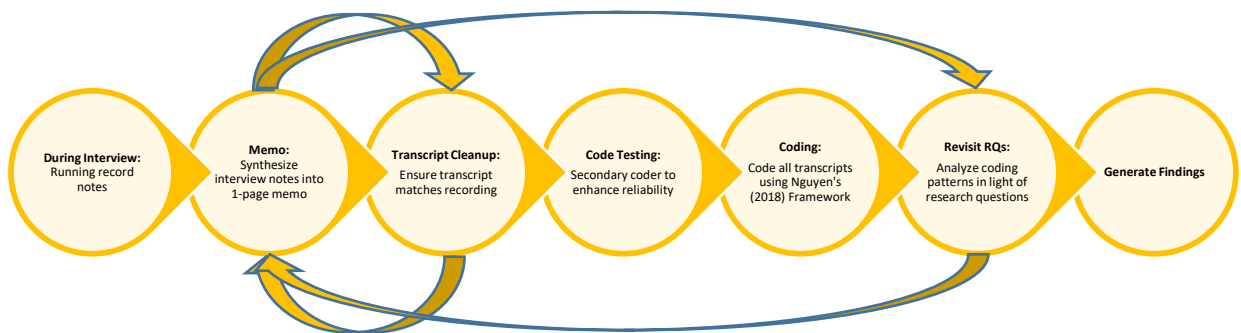


Table 3: Qualitative Analysis Codebook (Excerpted)

Category	Subcategory	Correlate Code	Description	Sample Quote
Personal correlates: Composed of teacher characteristics and teacher qualifications	Teacher characteristics: Refers to characteristics not specifically teacher qualifications	Race/ethnicity	Reference to teacher race/ethnicity	"I felt as though as a black male that my development or how I move forward with the charter school network was in the hands of somebody else."
		Children	Reference to teacher family and children	"I know people who have had children but to some extent, yes, my expectations of how I, like my willingness as a mother right is not compatible with the schedule."
	Teacher qualifications: Reference to teacher qualifications	Graduate degree	Reference to teacher procurement or possession of graduate degree	"I don't know that I necessarily look for like graduate degrees or certification, etc., but the years of teaching is probably the one that I get the most excited about."
		Certification	Reference to teacher certification	"While I was in the process of getting my certificate transferred over I knew I could only teach at a private school or charter school... they would accept my non-teaching certificate application so I accepted that job."
School Correlates: Composed of school organizational characteristics, school resources, student body characteristics, and relational demography	School org characteristics: Reference to school organizational characteristics	Hours*	Reference to hours spent in school or working	"I'm over here teaching literally sunup to sundown...it was just too much, like 12-13 hour day, literally all day. Our second year we were having buddle every day, we had huddles every day for the like the first two quarters like 7:35 every single day. Every single day...[and] we wrapped up at like 5:30."
		Professional development	Reference to professional development provided to teachers	"Pretty low level PD is forced upon us constantly."
	School resources: Reference to teacher resources available at the school community	Classroom assistants	Reference to classroom aids and assistants	"Our ICT situation is very unstructured and it can be discouraging trying to co-teach with somebody who doesn't know the content and we don't we have meetings every week - there isn't a lot of support."
		Teaching materials	Reference to teaching materials, e.g. aligned curriculum	"We have a very rigid curriculum that's not really working too well for [students]."
	Student body characteristics: Reference to student body characteristics	Student achievement	Reference to student academic performance	"I came to find that 100% of students are going to college and they're doing so by way of A.P. for all, so you have students who are on a 4th grade math level taking algebra two in 10th grade because you said that they're on the A.P. for all track when A.P. for all it just is not equitable when you talk about equity and where students are and what they need."
		Percent minority	Reference to racial/ethnic demographic of student body	"I was working Summer Academy and all the kids in it were Black. None of the Latino kids were in Summer Academy, which I thought was weird. And not only were all the kids in there black, it was like 90% boys and 10% girls with IEPs..."
	Relational demography: References the compositional influence of those around teachers	Teacher-principal race/gender match	Reference to teacher-principal race/gender match	"I just could not leave my development at the hands of another white male and that's what it came down to me because it's like if I constantly did that it's like I can't allow you to define my trajectory..."
		Teacher-student race/gender match	Reference to teacher-teacher race match	"There is something sinister about all these white people telling poor black kids what to do."
External correlates: Composed of accountability, school improvement, and work force	Accountability: The developments in programs and initiatives that aim to make changes to the teacher labor markets and attract and retain qualified and effective teachers	Assessment impact	Evaluation used for school-level decision making	"It was just like the days where it's like okay, I need to teach these three blocks. Two blocks are going to be like multiple choice SAT and another block is going to be SAT writing or whatever. And just you know some days I really didn't feel like I was doing teaching."
		Teacher effectiveness	Measured by a composite evaluation score or value-added score	"I realized like even putting in this work is not going to meet the results that I want like. I never got the results that I wanted. And I believe it was because of our systems because my teaching elsewhere would be considered like this master teacher or whatever, whatever the trajectory is at Polaris."
	School improvement: Efforts by leaders to improve practices at school	Mandated school reform	Includes discussion of mandates by the CMO/State/Federal Government required by the school to implement	"Typically across Polaris Academies, I learned that all students are going to be promoted like they're going to go to summer school we're going to make a way for them to pass."
		Research-practice partnership	Specific references to partnerships with Universities or research-based practices	N/A
	Work force: Refers to available human capital and hiring processes	Hiring*	Refers to organizational practices around recruitment and hiring	"I very much like the gritty nerd type of person."
		Salary	Includes reference to compensation	"I would definitely say higher pay, of course; we're educators, we do it all."

* Indicates a code not initially drawn from Ngyuen (2018) but added based on transcript data.

FINDINGS

Research Question #1: For what personal correlates are Polaris principals looking when hiring teachers?

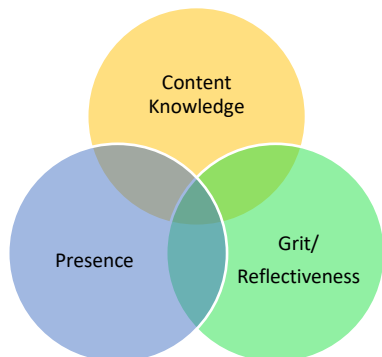
Finding #1—A Polaris Teacher: Both principals sought to hire, keep, and promote teachers who have similar personal correlates, particularly in experience, and teachers who demonstrate presence, perseverance, receptivity to feedback, and strong content knowledge.

“I very much like the gritty nerd type of person” (Rory – PAL Principal).

“I’m looking for cool nerds” (Steven – PACHS Principal).

There was considerable alignment in principal interviews about the type of teacher principals aim to bring into their school communities, preserve, and promote. Both principals described what Rory called a “gritty nerd:” a teacher who “embodies a sense of intellectualism and clearly values that in their work,” a teacher from whom “you can really hear the joy and passion they have for their content,” and “the type of person who brings that type of knowledge and passion and can invite students into the joy of the academic discourse of their content.” Steven, specifically, discussed actively trying to “get folks with PhDs and masters” who also have “the presence that can hold a class together.” Both principals also spoke to a third category: perseverance and reflectiveness. They aim to hire teachers who “are receptive to feedback” and “coachable,” and they aim to hire teachers who “are going to keep up with the high drive and last the deepest, darkest days of the school year when they come in the dark and leave in the dark.” A representation of this paragon teacher candidate can be found in **Figure 7**.

Figure 7: *Principal Priorities in Hiring: The Polaris Teacher Paragon*



Content Knowledge: Content expertise marked by, at least, an undergraduate major in the subject area.

Presence: Displayed comfort speaking in front of a class and general ability to promote engagement and connect with students

Grit/Reflectiveness: A more amorphous designation marked by both the teacher’s display of perseverance (demonstrated through either anecdotes shared in interview or continued determination to improve upon practice in the demonstration lesson feedback) and reflectiveness (as demonstrated by ability to respond with openness to and implement demonstration lesson feedback).

Principals look for a number of personal correlates in resumes and interviews to support their assessment of how potential candidates fit within this paradigm. Prior experience, both teaching and non-teaching, is a correlate of which school leaders frequently spoke. Steven shared looking for experience as a camp counselor, coach, or other role working with children on resumes as he feels that experience “translates to common sense” in the classroom. Steven also discussed the power of previous teaching experience, though he expressed caution in hiring teachers formerly employed at “elite private schools” as they sometimes come with a “white savior complex,” by which he meant that he is cautious that some white teachers come with paternalistic notions of “saving” Hispanic and Black students from historically marginalized communities. Steven also expressed a preference for parents because “they have high expectations of kids and are good at interacting with kids.” In a similar vein, Rory confessed a “known bias” for immigrants “because my dad was an immigrant and if you can come a thousand miles to get here, you can make it through Algebra I.” And while Rory explained that “it is nice to have folks in their 40s and 50s because they are able to float above the PAL gossip rumor mill,” he did worry that “older teachers might think it strange that the IL team is all in their 20s and 30s.” Despite these subtle differences in idiosyncratic “look-fors,” both principals expressed an interest in teachers with content knowledge who demonstrate presence, perseverance, and are open to feedback (**Figure 7**).

Both principals also shared a commitment to teachers of color. For example, Rory explained, “we want to build the most diverse school possible. I am a straight white male school leader so my preference is to hire *not* that.” Similarly, Steven described “a big initiative” to hire faculty of color: “we are always looking to diversify.” He believes this initiative has been largely successful: “when I took over there were no teachers whose backgrounds reflected that of our

students in any academic department. Like none. Now I think it's over 50% of our teachers in each department reflect the background of our students, perhaps with the exception of maybe history." Rory took pride that the "IL team is almost all African-American." It should be noted here that these findings present tensions with subsequent findings regarding work environment and reasons for departure, specifically teachers' beliefs that the community is not supportive of teachers of color or parents.

To find these candidates, both principals rely heavily on the Polaris recruitment professionals, and they expressed increasing satisfaction with their work. For example, Rory shared, "I'm glad recruitment exists. In the last year, I was very satisfied. They brought in some folks with eight years of experience who didn't want to go into leadership. They just wanted to teach." Despite relative satisfaction, both principals did express that, at certain points, they must "make compromises." Particularly as they move closer to the upcoming school year, they feel forced to hire teachers who they are less sure will work well within their communities. For example, Steven explained, "I don't see how this candidate will work, but we have no one in the pipeline." Rory shared a similar challenge: "the pipeline can get very dry, especially for math and science, and you just have to interview anyone who comes your way."

Both principals described efforts to combat this through partnerships. Steven spoke of the Polaris Summer Teaching Academy project as a method of diversification: "we use STA a lot as a pathway, and I recruit really heavily through that. I think it does a really good job of finding people who just want to be teachers for a lot of good reasons and have experiences with kids." Rory spoke of relying on partnerships with Morehouse and other HCBUs. He also said, "I do actually find that Teach for America (TFA) people are great. In part, because, like they've seen

rock bottom,” by which he means that they have “taught at a school that doesn't have all the supports of Polaris.”

Both principals place high value on those who come through traditional teacher preparation routes and have teaching experience in more traditional public school systems, though, as subsequent findings will discuss, analysis of teacher interviews would suggest that more work is needed to procure teachers with such personal correlates. Steven explained, “I really like people who have had an undergrad experience at say like Hofstra, Stony Brook, some of the local universities like LIU because they are generally from here, so they want to stay in New York for a long time they aren't looking to move, and they're often committed very deeply to the mission because they see it in a different way.” Similarly, Rory looks for people who have “taught at a school that doesn't have all the supports Polaris has because they aren't going to complain about the copier being broken or not having colored paper because they've spent hundreds of dollars of their own money on supplies. They can deal with the sand in the gears of a normal school year and they understand that it's part of school institutions.” He went on to say, “I value that above any other type of qualification.” Yet, while he values this, he felt there was a “narrowness in who we have appealed to: there has to be lots of teachers in other school systems who would be excited by a community like Polaris where PD and coaching are great. I have offered to do more, but I haven't been taken up on that offer.”

Research Question #2: Do hiring practices at Polaris high schools support the recruitment of the correlates found in RQ1?

Finding #2—Hiring Gaps: While both principals sought to hire, keep, and promote teachers with similar personal correlates, school hiring practices are not maximizing recruitment or procurement of the personal correlates from Finding 1.

“...you just hire them, and you're like, man, I just don't see how this can work, but we have nobody else in the pipeline” (Steven – PACHS Principal).

There appears to be disconnect between principals’ preferred correlates and Polaris recruiting. Polaris Recruitment’s internal professional development materials state that their top goal to “improve partnership with school leaders” is “increasing candidate quality.” Yet, their literature references more traditional generic career search engines such as Indeed.com and LinkedIn and references no traditional teacher-specific databases such as K12 Job Spot, Education Crossing, School Spring, and National Association of Special Education Teachers Career Center, among others. Furthermore, while the recruitment officer was able to say, “when I see candidates from Brooklyn College, Hunter College, NYU – they typically tend to be very strong candidates,” those communities, or any undergraduate programs in teaching, were only just included, and briefly at that, in the most recent Polaris recruitment internal literature shared with me. They were entirely absent in discussions of campus visits or active recruitment efforts. These findings are corroborated by subsequent findings on work environment and teacher attrition, as current staff expressed frustration with some hiring decisions: i.e. staff believed that there are far too many teachers hired with no teaching experience, who are not interested in teaching long-term (what many called the “Teach For America (TFA) model”), who are not certified teachers, or who are hired as uncertified teachers and are frustrated with their alternate route certification requirement through the Polaris Academies affiliate, The Relay Graduate School of Education, on top of their already heavy teaching responsibilities. This frustration with lack of certification and the required master degree is particularly interesting as neither

recruitment nor Rory believed them to be of particular importance: “I don’t know that I necessarily look for like graduate degrees or certification.”

Analysis of principal interviews reveals an intentional and aligned interviewing process to procure these types of teachers. They described intensive interviewing processes to create what the research calls “realistic job preview” for potential candidates. Both principals shared that they offer the same axiom with all potential candidates: “we are interviewing you just as much as you are interviewing us.” Principals discussed, at length, the steps they take to ensure teachers have a clear sense of what it looks like to work at Polaris, and teachers from focus groups and interviews overwhelmingly expressed that they do believe they had a realistic job preview. Perhaps the only exceptions to this are two departed teachers who described visiting on “special” days, which gave them a false sense of the school’s relational work with students.

Principals also shared the steps they take to bring teacher leadership into the interviewing process. As Rory explained, “the IL is not the decision maker, but they have a lion’s share of the input” and “more and more over the years I have tried to give the day to the instructional leader.” While this may be true, PAL departed teachers, including those with instructional leadership (IL) status, expressed a great deal of frustration with the principal’s ultimate hiring decisions and felt “blindsided” and “out of the loop” with hiring some decisions. As shared by both principals, occasionally they must “make compromises” when “the pipeline is dry.” Notably, both principals believed that it is significantly easier to hire qualified candidates when there are fewer candidates to hire, i.e. attrition is lower. Moreover, it is easier on leader schedules; Rory estimates that a third of his time is currently spent on hiring. In addition to hiring, both principals did also speak to the need to promote individuals who were not ready for teacher leadership roles simply because they needed teacher leaders in those roles.

Research Question #3: What are the rates of attrition at Polaris?

Finding #3—Attrition Levels: Analysis of staffing records demonstrate that teacher attrition at both PACHS and PAL is well-above the national average.

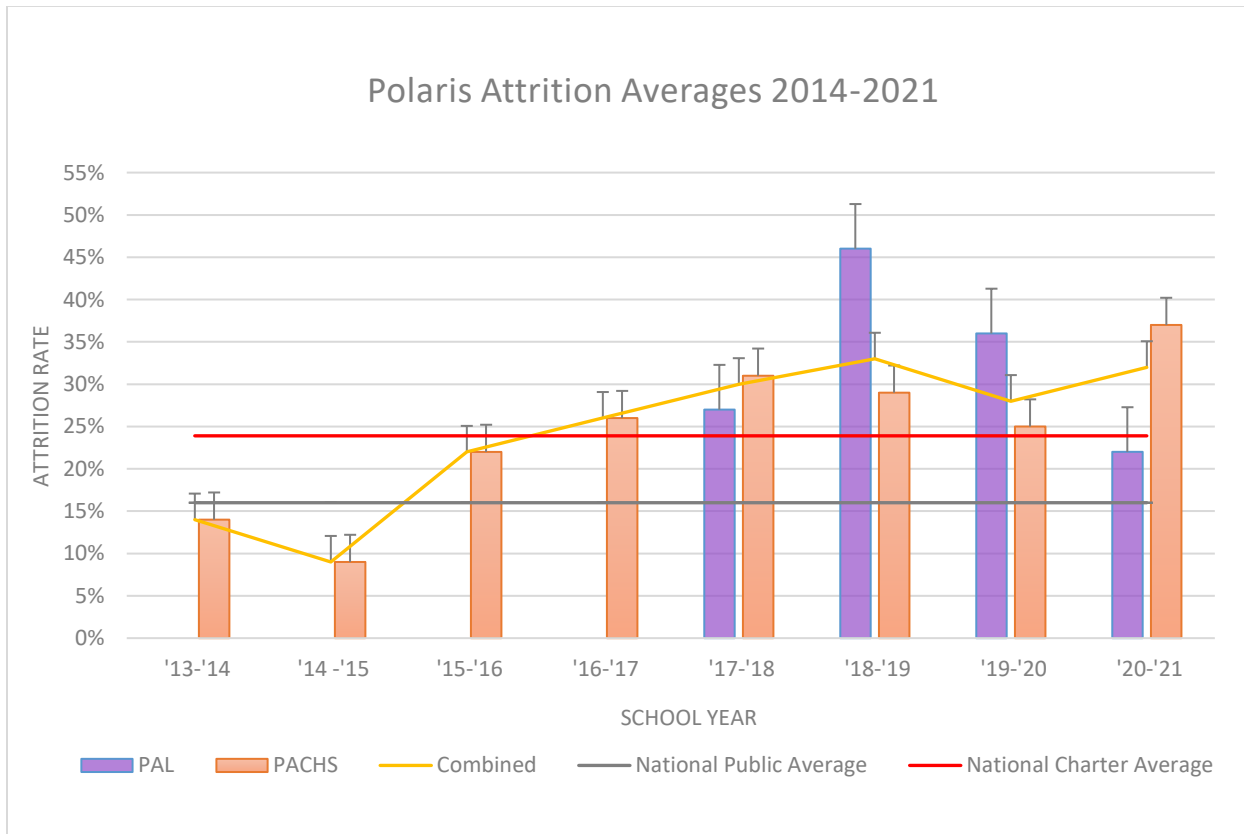
*“I know that the majority of these people are quitting...
it’s hard to remember the revolving door” (Phoebe – PAL Departed Teacher).*

*“When we don’t have a Union and we don’t feel like we have a say,
the only way to respond is with our feet. To leave” (Ariel – PACHS Departed Teacher).*

The 2012-2013 NCES SASS Teacher Follow-Up Survey found that 8% of public school teachers move to another school each year, while another 8% leave teaching altogether yearly (National Center for Education Statistics, 2013). Disaggregated for charter schools, this same study found that 11.4% of charter school teachers move to a new school annually, while another 12.5% leave teaching altogether (National Center for Education Statistics, 2013). Analysis of the staffing data from PACHS and PAL demonstrates that teacher attrition at these two Polaris Academy schools is well above the national average. PAL, for instance, over the course of its 4 full years, holds an attrition average of 32% - double that of the national public school average – ranging from as high as 46% between its second and third year to as low as 22% this past year. While not as high as PAL and despite early success with retention, PACHS also holds an average considerably higher than the national public school average, averaging an attrition rate of 26% since the 2013-2014 school year, peaking this past year at 37%. Though PACHS’s attrition rate is lower than PAL, PACHS has been on a consistent climb, reaching its highest attrition rate this past year of more than double the national public school average, while PAL’s attrition rate is on a steady decline since its peak of almost triple the national average. Indeed, PAL had its lowest attrition rate ever this year, though, notably, that rate is still 6% higher than the national public school average. Together the two schools hold an average attrition rate of 27%, over 10% higher than the national public school average.

It is important to note that I am confident these numbers represent a minimum with respect to potential error. By this I mean that teachers from both schools spoke of departed teachers and staff members not reflected in the staff rosters, e.g. at PAL two departed teachers spoke of three different people serving as office manager in a singular year though the staffing data reflects only one of those people. Similarly, the most recent PACHS data includes four teachers who, though still on the current staff roster, are no longer with PACHS. Thus, while I am confident that these calculations offer a floor for understanding attrition levels at PACHS and PAL, I have included an error bar to account for the potentiality of even higher attrition numbers – particularly emerging from for mid-year departure. In just the first two months of the 2021-2022 school year, PACHS has had six mid-year departures. These attrition rates can be found below in **Figure 8**.

Figure 8: PACHS and PAL Attrition Rates Combined, Separate, and Compared to National Average



Research Question #4: In what ways do Polaris teachers and principals perceive turnover impacts the school community?

Finding #4—The Impact of Attrition: Teacher attrition negatively impacts students, staff, and school leaders, and this negative impact is compounding and reifies attrition.

“Not enough people stay long enough for meaningful relationships” (Francesca – PAL Veteran).

Teachers, in both interviews and focus groups, and principals unanimously spoke to the deleterious impact of teacher attrition on the school. Teachers consistently bemoaned the number of teachers who leave every year as an inevitability, as Phoebe, a PAL departed teacher-leader, named, “I know the majority of these people are quitting - it’s hard to remember the revolving door.” She added, “if all these people leave, then why am I here?” Most teachers, particularly teachers of color, spoke to the harmful impact of attrition on students. Francesca, a PAL veteran, believed that “it constantly reiterates this idea that these people don’t care about [them], [teachers] aren’t invested in [them].” Isaiah, a PAL departed teacher, explained, “students are very woke to what’s going on, but it’s like a Black man getting killed – they are numb to it because it happens so much and it’s been happening over their elementary to high school careers. They know that all of the good teachers are going to leave. They notice it; they name it.”

And while interviewees did discuss the impact of attrition on students, they spoke considerably more to the impact of attrition on the staff culture and their lived work experience. With respect to staff culture, teachers across the sample group explained the harm attrition does to teacher-to-teacher relationships. As Francesca lamented in the PAL veteran focus group, “not enough people stay long enough for meaningful relationships.” Beatrice, a departed teacher who spent almost a decade at PACHS, particularly felt this belief: “I saw in those last few years we lost our connection, you were no longer like a tight-knit staff where everyone had each other’s back. We lost our psychological safety, and we were no longer like as vulnerable with each other...not feeling a sense of belonging.” This lack of psychological safety was evident in focus

groups with first-year teachers. For example, one PACHS new teacher, Ines, shared, “I’m struggling” at four separate moments, yet also named, “I can’t talk to my IL because I don’t want her to see I’m struggling.” At PAL, a new teacher, Rachel, expressed, “I don’t feel comfortable disagreeing or dissenting,” while, Beverly described, “there isn’t much collaboration.”

With a diminished sense of psychological safety, teachers have found a sense of belonging in a counter-culture against “the network.” Indeed, as one former PACHS teacher, Ariel, named, there was solace in “discussing how messed up Polaris was” with colleagues. In the PAL veteran focus group, Nicholas also described this phenomenon, sharing that a bond is formed with colleagues in “constantly commiserating with folks about ‘the system.’” The word “commiserating” appeared in six different interviews in reference to collegial bonding. Indeed, a certain “us vs. them” pattern emerged through almost all the interviews as evidenced by the subtle, yet omnipresent, pronoun of “they,” and the more direct references to “specters of Big Brother” and “corporate domination.” Such notions were present at all levels: one PACHS new teacher, Ethan, wondered if Polaris Academies’ “business model is to bring in 22-year-olds who don’t know any better and burn them out,” while another teacher in the PACHS veteran focus group, Liam, critiqued the business start-up culture driving the school and imagined teachers as Uber drivers simply following corporate directions. At PAL, Phoebe compared Polaris to B16, the fictional covert government agency from the television show *Scandal*, while Nicholas, in the PAL new teacher focus group, professed, “the network plays you like a puppet.” Principals are well-aware of the chasm growing between their teachers and the network. Rory believed that “the connection to Polaris is shrinking. There’s no longer a feeling of commitment to the network.” Steven understood this as well: “teachers feel very removed from the network – it has changed a lot.”

These feelings are contributing to departure. One veteran PACHS teacher, Barbara, who left only days before this past summer PD, shared: “I don’t recognize PACHS or the organization anymore. I know that as things grow and change we are supposed to pivot, but I don’t know where the pivot is headed and that makes me a bit nervous.” When I asked departed teachers to fill in the blanks with either PACHS/PAL or Polaris, ten of thirteen departed teachers responded: “I joined PACHS/PAL, but I left Polaris.” This image problem is also evident among new teachers. I asked focus group teachers to private chat how much longer they plan to stay at Polaris. New teachers averaged 1.4 years. Veterans did not fare much better, averaging 1.6 years.

In addition to the more creative imaginings of teachers, they also spoke to very concrete and practical ramifications of attrition - what I’ll call here *attrition reverberations*: the negative externalities of teacher departure that compound and reify school-wide attrition. While these reverberations manifest differently for different teachers, everyone feels the aftershocks. Coverage is a reverberation clearly felt by all. One PAL departed teacher, Anthony, spoke at length about the consequences of another teacher in his department quitting midyear. While he came into the year with “a ton of momentum,” his entire year changed when he took on the classes of the departed teacher. Similarly, two other PAL teachers complained about teaching “every block in the day” to cover for midyear departures. And these coverages were not simply manifest of the classes left by departed teachers; according to Phoebe, “there were days where probably half the staff called out. Rory was teaching classes every day because we had so many coverages. It was not good. So people were just out out-the-wazoo, people were just refusing to do work, and it just got worse and worse by the day.” Veterans, particularly, felt the weight of these departures, as another departed PAL veteran, Sarah, said, “as a veteran, so much falls on your shoulders.” Another departed PAL teacher, Samantha, spoke about coverage: “there was no

sacred moment for teaching,” something others named as a reason they joined Polaris: “the messaging was like ‘we’ll do anything for teachers to kind of get them to a place where they can just teach.’” Ethan believed, “coverage is the most disheartening and soul-crushing thing,” and Eleanor, a PACHS departed teacher, said, “with coverage, multiple classrooms suffer.”

Teachers also discussed the diminished quality of teaching due to departures. Eleanor captured a belief shared by most: “I felt like I saw the talent and the caliber steadily decreasing throughout the years. In those earlier years, there was a consistent talent, and then it felt like we were just like lowering our expectations.” PAL departed teachers all discussed diminishing quality over their employment: while many perceived the founding year to be a “unicorn year” of incredible commitment with a markedly high bar, they felt that the bar was “comically lowered” in subsequent years, again citing “too many first-year teachers.” Phoebe’s “blood was boiling because we are doing such a disservice to students with the teachers we had in the building.”

ILs felt like they were engaging in a “Sisyphean effort,” constantly having to coach new teachers. Even new teachers shared frustration with the overwhelming percentage of new teachers as well. One PAL new teacher, Arnold, named that “everyone is in their first 1-2 years - it’s frustrating,” while another PAL new teacher, Marisol, complained that after “having only been with the students for two months, I had to write a ton of college recommendations for students I just met.” Ines shared that, while she is struggling, her coach has “so much on her plate. I don’t want to bother her.” Sophie, another PACHS new teacher, recommended hiring certified teachers: “if you’re going to say you have a SPED program, you also must have teachers who either majored in that or like knows something about [it], not just throwing them into teach.” Phoebe captured the impact of these reverberations when she said that attrition lowers investment and the school cannot improve when “always starting at ground zero.”

Research Question #5: What are the school correlates most associated with attrition among teachers who Polaris principals had hoped to retain?

Research Question #6: What are the school correlates most associated with dissatisfaction among currently employed Polaris teachers?

Finding #5—Hours: Teachers and principals unanimously agree that the hours required to work at Polaris, a school organization correlate, are a primary cause of dissatisfaction and attrition.

“I was just pouring from an empty cup” (Beatrice – PACHS Departed Teacher).

At the end of each interview and focus group, I provided participants with a “magic wand,” which they could use to change three things about their school community that would increase their longevity there. Almost every participant used this wand to shorten the school day. Whether in simple statements such as “the hours were long” or more charged statements such as “I find myself on the brink of being burned out,” new teachers, veteran teachers departed teachers, and principals unanimously agreed that the school day is too long. Indeed, the most prominent code throughout all transcripts is “hours.” As Isaiah recalled, “I’m over here teaching literally sunup to sundown...it was just too much, like 12-13 hour day, literally all day. Our second year we were having huddles every day, we had huddles every day for the like the first two quarters like 7:35 every single day. Every single day...[and] we wrapped up at like 5:30.” Even the few exceptions, like Eleanor, who felt able to navigate the hours, acknowledged that shortening the school day “would benefit the school culture tremendously.”

A number of women in the study spoke about the hours being incompatible with their desires to start families: Eleanor shared that her “expectations of how I, like my willingness as a mother, is not compatible with the schedule,” while a departed PACHS teacher, Alexandra, explained that “having a family has always been number one priority for me and...I just could not see how because there were no examples of folks, of women specifically, who had families. Most moms on staff are at a reduced capacity.” Even PACHS veterans like Caleb felt this: “the

day needs to be shorter. I don't know if time is 100% purposeful and teachers and kids cannot be fully realized people. People are leaving because they have families and to me that is completely unacceptable." Principals understand this. For example, Rory shared that "the school day is a big deal. It's a major barrier," and Steven shared that "it's really hard to have a family and work at Polaris." Steven spoke at length of the HR and scheduling gymnastics he must undertake to provide specific alternative/reduced schedules for some parents, though he noted that others in the community are frustrated by what they perceive to be special treatment. He discussed a specific staff member who, in addition to shifted hours, received substantial compensation for his particular role: "he wouldn't do this work if he didn't receive substantial money for it."

These principal perceptions are interesting given the number of departed teachers who mentioned such arrangements as well but did not want to take a reduced salary or believed that the presence of alternative schedules suggested a needed change for all and did not want to engage in special arrangements. Ian, a departed teacher from PACHS, is an exception here; he emailed after the interview to share: "my last two years at Polaris I had the ability to work 90% or 95% (I don't remember) to make the job more sustainable after so many years. I could leave a few hours early one day a week. I was feeling like I needed some space and flexibility, and was privileged to be able to take the pay hit and for PACHS to work with me."

Compounded upon the long physical hours in the building each day, participants also unanimously described how demanding the work within and beyond those hours was. Rory well-diagnosed this: "the intensity of our day and our instruction is a barrier." Isaiah captured the stress of the day when he recounted that "there are moments that people don't even eat, they don't even eat, you got to think about eating. That's problematic for me, even going to the bathroom was hard. It's like you're in jail, everything you did they essentially monitored." One

PACHS teacher shared, “I’m incredibly stressed; I have so many responsibilities in the day, and they don’t see how much work it is or how stressed I am.” Three departed PACHS teachers mentioned colleagues or themselves becoming ill from exhaustion, and one PACHS teacher, Rebecca, said “I am overwhelmed, I am so ready to go home at 2pm. I’m spent.” According to a vast majority of participants, the exhaustion of the school day itself is only exacerbated by the work one must do outside of school. Indeed, a majority of participants shared that “I am always working,” and most rejected the possibility of all one’s work being accomplished during the school day. The after-hours work demand was captured by Isaiah: “we wrapped up at like 5:30 when students were done, but guess what my lessons aren’t done! So what do I have to do? I have to go home and lesson plan....and I want to make sure it was strong so it turned into being done at 7, 8, 9, o’clock that night. And then guess what? You have to do it again the next day!”

These long days take their toll on teachers. According to Isaac, a departed PACHS teacher, “work-life balance was unsustainable. I had a hard time knowing where to draw the line and there wasn’t enough distance for personal life.” Beatrice explained that the required hours took a toll on “my emotional and mental wellness. I couldn’t see who I was outside of work. In therapy, I couldn’t separate my work self and my life self. I was just pouring from an empty cup.” She went on to explain that, because she could not get all her work done during the school day, she came in extra early and “stopped connecting with my co-workers in order to try to get my work done during the workday so I could lead my life. However, it was those connections with my coworkers that sustained me in the first few years, so when I stopped really connecting with my coworkers, I no longer had what kept me there.” Another departed PACHS teacher, Leo, recalled: “I lost 10 pounds, was barely eating because I was like I have to work, work, work, work. I was working on the weekends and coming in on Saturdays.” Eleanor lamented not

being able to go to the doctor (an experience shared by others), not having time to think (another experience shared by others), and “sleeping at weird hours, like in corners of bars and restaurants and parties.” New teachers also feel this way. As Marisol explained: “I always end up bringing work home and I don’t really spend a single evening without looking at my computer....that’s also how I spend a significant portion of my weekends. I am on the brink of being burnt out.”

Notably, not every interviewee perceived of the workload and hours in the ways described above. Three PAL “founders” acknowledged that the hours were long, even too long to start a family, and the workload was intense; however, they embraced the hours and workload as an imperative, taking pride in their ability to get it all done. As Phoebe shared: “I hear teachers complain like I don’t have enough time. I have no time. It’s like yeah I understood it, but also, I was processing from the perspective, I’m doing all these roles and I’m also teaching and I’m still able to do my job, all my jobs.” The PACHS veteran focus group also offered complexifying perspectives on workload. While they acknowledged that “the hours are long,” some, in the words of Jessica, “have learned to cut myself off. I’m on autopilot now.” She did also explain that her “manager said you can do it but your classroom is no longer a focus, maybe only give like 40% of yourself to that.” This approach was not shared by all veterans at PACHS, as Barbara said “work is crippling but we have a poker face.” As mentioned earlier, Barbara is no longer with PACHS.

Preface to Findings 6-8: Both principals discussed what they perceive to be a primary cause of attrition: physical movement. Indeed, the PAL principal believed that people “leave NYC more than PAL,” while the PACHS principal believed that many are “priced out” of NYC. Analysis of the data does not suggest that these explanations are sufficient. Even teachers specifically mentioned by the Polaris principals as those who left Polaris because they left NYC, discussed their willingness to stay at Polaris had their experience been different. NYC, for them, was a non-factor. Instead participants left, or are currently dissatisfied, because of four primary correlates: work environment, professional development, administrative support, and relational demography.

Finding #6—Work Environment and Relational Demography: Participants across interviews and focus groups named work environment combined with relational demography, both school organization correlates, as important causes of dissatisfaction and attrition. Specifically, they described a school environment of student joylessness – a culture hyper-focused on student achievement sustained by racist disciplinary practices and one lacking in opportunities for non-academic or academic-adjacent exploration – as a catalyst for dissatisfaction and attrition.

“There’s no joy with kids built into the school” (Ines –PACHS New Teacher).

Participants across interviews and focus groups described a culture of student joylessness: a culture hyper-focused on student achievement sustained by racist disciplinary practices and one lacking in opportunities for non-academic or academic-adjacent exploration. Indeed, teachers at both school communities described significant school culture breakdowns, with Caleb suggesting that “we need a school- or Polaris-wide Manhattan project on what makes great school culture. I don’t actually think we know and I don’t think until very recently, we particularly cared.” Phoebe shared this belief: “there was a breakdown in creating a vision for what student culture and development should look like. So when you have no vision, the culture is going to set itself and that’s exactly what it did.” And teachers perceived what they saw as cultural breakdowns manifesting in joylessness for students. James, a PAL veteran, bemoaned that students “don’t have joy in learning and they don’t have a joy in independently coming up with answers. I see this in science, there’s not a thrill about doing labs even though that should be the most exciting thing that you do in science class. It feels like a slog.” Ines articulated similar feelings: “my class is joyless. I don’t know what I’m doing and I am embarrassed to ask for help.” Many teachers, in various fashions, articulated this joylessness: “we are culturally

irrelevant;” “students aren’t invested, so student hand holding is a real problem;” “there’s a culture of underachievement, we coddle our students so much;” and even “Polaris is a vortex, your humanity slowly dissipates the more you’re there.” Samantha, a departed PAL teacher, explained that “student investment is diminished.” Rachel and Beverly reaffirmed this feeling when they shared, respectively, that “the culture of ‘more work is better’ is alive at PAL” and “a disproportionate amount of time is focused on recovery work. Like did I even teach or did I just help them make up work until they pass.” Jessica and Caleb in the PACHS veteran focus group expressed sadness that students did not have any school pride. For example, Jessica shared, “I wish our kids were proud to be Sabers, wearing their Saber garb all across the city, gushing about our school. I want that.” In agreement, Caleb suggested, that instead of “having our kids in seats all day,” “we need to find growth and joy at school because our kids settle for being Sabers instead of being proud of being Sabers. Our school is the fallback school for them if they don’t get into Brooklyn Tech.” And teachers consistently named that the lack of joy and positive school culture leads to attrition. This was captured by Samantha who expressed dismay about a “really good teacher who left after one year.” She shared that “he would tell me that part of it for him was like he didn’t feel joy coming from his students, that like no matter how well he thought he did a lesson, they didn’t seem to enjoy their time and that I think was true for a lot of teachers as well.”

While teachers believed that culture is ill-defined, they believed that “the system” is overly defined: “rigid” and “inflexible.” Indeed, at various points in the PACHS new teacher focus group, four separate teachers used the word “rigid” to describe the curriculum. As Rebecca explained, “we have a very rigid curriculum that’s not really working too well for [students].” Others shared this belief. Phoebe believed that “academics were the sole focus,” and she derided,

“I wouldn’t put my name on” the “heartless practices of TLAC (*Teach Like a Champion*).” Others expressed deep reservations about what they perceive to be a rigid curriculum and instructional practice. Two departed PACHS teachers and one departed PAL teacher used the word “robot” to describe the expectations of teachers: “teachers sound like a robot, like it’s not coming from you. It’s coming from above, and you’re creating that consistency;” “we felt like we couldn’t be our natural selves anymore - we felt like we were going to continue to be robots and frankly I observed that, especially early on, the teachers who could be that, could essentially be like the cookie cutters, were recognized as being more effective;” and “all of these people look like robots and the kids find that disingenuous.”

Teachers regularly described a particular “prototype” or “mold” of Polaris teacher: “if you didn’t fit a particular mold, then you didn’t fit the school and you didn’t belong there.” Multiple teachers, including veterans in the veteran focus group, argued that they did not “fit the mold,” which Luke defined as “political structures that rob me of my authentic self.” In the PACHS veteran focus group, Caleb argued, “I think probably the people on this call right now, and many others who have stayed for a long time, actually don’t exist in that system like word for word action for action,” which Liam described as a “tractor beam” that “you have to essentially get out of.”

Resentment towards the rigidity of the system was particularly pronounced with respect to the school discipline model, which Leo described as a “rigid authoritarian formula” and a “revolving door of suspension.” Multiple participants used the word “prison” in describing the school discipline culture, and teachers of color found the system particularly “paternalistic,” “oppressive,” and “compliance-based.” Ariel spoke at length about the discipline system, which she believed mimics that “racist,” “carceral,” and “punitive” “broken windows policing” model.

Even veterans in the veteran focus groups agree. As Barbara argued, “we need to throw away the discipline system as it is...the discipline system in so many ways is just not working. Our kids are being penalized for things that don’t make sense and it’s taking so much time in terms of detention and prevents them for participating in other things that would probably curb a lot of behavior anyway.” Many shared this belief that students are disciplined for unnecessary actions. For example, Phoebe explained, “students are penalized for doing things that didn’t make sense.... The system is sold as restorative – it is not restorative.” Anthony wondered “to what extent the systems solicit and kind of create the behaviors that the system apparently is set up to try to avoid right...it is kind of a self-fulfilling prophecy.” Multiple departed teachers, particularly teachers of color, regretted their participation: “I become part of the problem, you become so engaged in culture that you start to believe it even though you know it’s not right;” “I’m part of the problem...it haunts me to this day;” and “I even fell victim to it.” Multiple white teachers resented the discipline system as well: Ariel shared, “I was fed up with the systems, the treatment of students of color,” while Ian, who spent almost a decade at PACHS, explained, “the discipline system is relentless and it doesn’t feel good.” Yet, while there was some agreement among white staff regarding the discipline systems, teachers of color overwhelmingly rebuked it.

Teachers of color who I interviewed also found issue with the way faculty of color are treated. Steven believed that “teachers of color are leaving for leadership opportunities, not because they are disgruntled.” Analysis of the data does not support this hypothesis (a data point in and of itself in some ways, i.e. the principal’s pulse on staff of color is not accurate). Eleanor spoke at length of an “entrenched white dominant culture,” which she saw as a clear catalyst of attrition for teachers of color. As she perceived it, the increase in people of color employed at the organization (see **Figure 2** and **Figure 3**) is leading to increased conflict with entrenched white

dominant culture, which ultimately leads to a further breakdown of culture and cohesion and, ultimately, departure. Isaiah shared, “I felt like, as a Black male, my development was in the hands of another white male... I can't allow you to define my trajectory in this field.”

Isaac described a moment in his first year at PACHS in which he was genuinely confused as to why students could not chew gum at lunch in the lunchroom, and, when he asked the school's Dean of Curriculum & Instruction, he felt “dismissed” and “disrespected.” Seemingly his perception held validity as “several teachers came up to me and apologized on behalf of her.” Leo believed that “half the staff was racist and half were my friends.” Eleanor shared this belief, suggesting that due to the ignorance of the predominately white staff, “there was a trickle-down effect of racism as teachers replicated their norms of white dominant culture.” Leo recalled multiple macroaggressions he experienced from white staff. He remembered that “the first time I got a red flag warning” about the “plain and simple racism” was when his “grade level lead told me that I read good,” and that this was the “first time I noticed well I'm the only Black person in the history department or across all Polaris 9th grade history teachers. I'm the only Black person on my grade level team.” He went on to explain that “I have learned the sort of nuances of how corporate racism works – the subtle signals of you don't belong here.” And while Leo was able to say, “I will always be a Saber,” he also avowed, “I could no longer be part of a culture of anti-Blackness and racial indifference full of liberal white people unwilling to share power.” Phoebe shared such beliefs, feeling that Black leadership was “tokenized” and not actually “included in decisions.” Almost every departed teacher and all focus groups encouraged me to review two Instagram accounts that launched in the summer of 2020, @blackatPolaris and @Polaristruth, in which students and faculty, predominately, faculty of color, anonymously shared their “experiences of mismanagement, racism, prejudice, and cultural bias at Polaris Academies” in

over 500 combined posts (Polaris Truth, 2020). In recommending that I visit these Instagram accounts, faculty still employed named that, while they have seen some changes, changes are wholly “superficial and insufficient.”

While PACHS departed teachers spent a great deal of time discussing the white dominant culture and their experiences with racism in Polaris, PAL departed teachers overwhelmingly felt that the “dean systems were broken.” In fact, two departed PAL teachers specifically cited the Dean of Students as their primary reason for departure. Samantha described at length a story that “literally haunts me to this day,” in which she witnessed the dean putting a student in “an arm restraint and [dragging] him through the hallway. The kid starts screaming and crying. My DOO, a social worker, and an office manager are trying to get this Dean off of this kid. At this point, he’s got him pinned to the ground, the kid is screaming and we can’t get them off of him...it was bone-chilling.” She went on to share that she was “horrified the next day to see this Dean at work” and, “for me, that was the story that I was like I can’t work here.” Anthony referenced the Dean thirty-three separate times in his interview, suggesting “I lost confidence in leadership, specifically because of the Dean,” a person he found wholly unqualified for the position.

Multiple departed teachers who served in leadership roles at PAL shared stories similar this memory of Sarah’s: “we told Rory not to hire that Dean, he was unexperienced, he had never worked in a real school before...I think at least one of the Deans has to have had Dean experience in order for it to be successful... the Dean in general, was a huge lacking point...the whole behavior system fell short.” Rory himself recognized this: “the Deans are a complete disaster. I should’ve fired at least one of them a long time ago.” Phoebe, who held multiple leadership positions including working with the Dean of Students, suggested that “the training that they provide to Deans is just completely insufficient,” and Deans end up “executing the role

after seeing someone like PPC's (another Brooklyn Polaris high school) Dean who is going off on kids. So they think this is what I have to do to keep order in the school. It creates this environment of students getting kicked out constantly going to the Dean's office."

While there was some divergence in how PAL and PACHS viewed and spoke of the discipline culture, there was complete consistency across all interviews and focus groups that there is not enough focus on relationships or extracurricular activities. Indeed, teachers described a work environment that does not foster what they perceive to be the essential relational work with students. As Phoebe offered, "you can't teach the head without the heart." Even Rory believed that "we've undervalued relationships." Departed teachers shared this belief in myriad ways: "it was building those relationships that was missing;" "I had great relationships with the students and I was not doing TLAC;" "PAL and Polaris, they had a problem with how we build inter-personal relationships so that wasn't a priority;" "PACHS teachers aren't trained in how to then like try to create these connections and they aren't organically happening;" "I think at PACHS it's the teachers who were more natural relationship builders who tended to stay longer – they're not going home and crying every day;" and "I was successful because I know how to build relationships. Literally, it's all relationships."

Currently employed teachers shared very similar sentiments in their focus groups. Francesca discussed how the relationships at her the school at which she worked prior to PAL "made it all worth it," while Ines longed, "I want to connect with kids so badly but it's so hard with the pressure to complete the lesson plan." Ethan bemoaned that there is "not enough relationship building and personal time with kids. All my time is frittered away on trackers." Sophie, another PACHS new teacher, admitted, "I feel like I will get in trouble if I just chat with kids. There's not even really time for it anyway, we're always on time crunch." Even veterans

shared this perception. For example, Jessica, who has been with PACHS for over a decade, remembered, “relationships were stronger once upon a time.”

Alongside this perceived cultural deficit, teachers overwhelmingly suggested that, because of the hyper-focus on academics and the restrictions presented by the “monotonous curriculum” (Ethan’s words), teachers and students are not experiencing an inextricably important part of the high school experience: extra-curriculars. Again, teachers from almost all interviews and focus groups shared pronounced dissatisfaction with the extra-curricular opportunities afforded. Sarah discussed at length how “the hours don't allow the same sort of just like experience for students and teachers alike to get involved in the way that I wanted a school to be.” Multiple PAL departed teachers recalled starting clubs and activities, yet feeling frustrated that the school culture and hours did not allow for these programs, so no other teachers were offering programming and that their programming would inevitably die upon their departure. They all believed that “people were too exhausted to run after-school programming.”

Other teachers shared frustration in wanting to coach, but finding it impossible amidst scheduling constraints, an interesting finding in relation to the Steven’s belief that “students need something else that brings them to school; teachers need the same thing.” For example, Jessica shared her deep sadness that she could no longer coach soccer because “all the games cut into the school day. I couldn’t coach [soccer] anymore because I had teachers who taught seventh period, and I’d never be able to see them teach. So I had to give up [soccer], which I loved.” Another PACHS veteran, Barbara, shared, “I can’t tell you how many extracurriculars that we wanted our kids to participate in, but if they’re going to do those programs with other kids in NYC, they can’t be in our school for as long as our school day exists.” Teachers also discussed the importance of extracurriculars. For example, Sarah explained:

Extracurriculars allow students to find passions in other directions than just academics. I actually think from being so involved in my first school that it's the connection with the advisors and the coaches that they make - to see you outside of the classroom is huge and to not just know like I'm going to be the strict person in the classroom that wants you to learn, but I'm also going to have fun on the soccer field with you and allow you to get that. Like this is a space where you can get the silliness out, you know you can run around, you cannot just sit in your chair. But then when we walk into the classroom that's when I expect that of you, and I think that was missing. Students only perspective of teachers was only through the four walls of their classroom. And for, especially for first-year teachers, that's hard because they're not very great at teaching, for the most part, and our students gave them a really hard time. Had they had sort of the outlet of seeing them like oh well, he's also my step coach and so we get along really well. And you know word of mouth, the kids are going to pass along he's so cool in step so behave for him, you know you should join that team. And so I really think the students perspective of teachers change when they see those teachers outside of the classroom. And that was completely missing in the school.

Others reflected upon the negative repercussions of a lack of extracurricular offerings on students and student culture. For example, David, another departed PAL teacher, suggested that academics is the only option for students, and you are “either a good student or a bad student. If you're failing, that's sort of who you are - you're in that category and there's no other way for you to stick out and succeed.” Phoebe believed that “there was nothing to invest them beyond the classroom.” PACHS veterans discussed the power of extracurriculars for building student independence, school pride, and developing intrinsic motivation. While Polaris Academies has attempted to bring more student programming in through a program called “Project” (a Polaris high schools-wide initiative, which generally replaces two periods per week with various mandatory extracurricular offerings for teachers and students), teachers find this wholly insufficient. At worst, teachers said, “Project is a disaster,” and, at best, “Project was the only highlight of the school for me that year, but so many students are excluded because of grade criteria. It’s almost like they are getting double penalized for their low performance. Ironically, it might just be that outside activity that could support their academic progress.”

Finding #7—Professional Development: While almost every participant cited professional development, a school organization correlate, as a reason for joining Polaris, participants described professional development as a source of dissatisfaction and attrition because early development is rigidly grounded in scripted curriculum of *Teach Like a Champion* execution without broader pedagogical sense-making support. Furthermore, veteran teachers described highly limited teacher development opportunities beyond the first year or two.

“The lesson plans from the network relegate you to a burger flipper” (Ethan – PACHS New Teacher).

While almost every participant cited professional development as a reason for joining the Polaris community, participants found themselves perpetually disillusioned with their opportunities for professional development. Indeed, discussions of development fell into two thematic concerns: 1. early years marked by a development rigidly grounded in scripted curricular and *Teach Like a Champion* execution without broader pedagogical sense-making support; and 2. a lack of a plan for teacher development beyond the first year or two.

Indeed, new teachers in both the PAL and PACHS focus groups found their development far too prescriptive. PACHS new teachers particularly struggled with the “very specific way of teaching,” “Polarese” as Ines dubbed it. They particularly struggle with the curriculum, which they found to be “not meaningful,” “monotonous,” and “distant.” While Steven believed that this curriculum “alignment is just a starting point,” his teachers, particularly new teachers, did not feel this. Ethan shared that “getting the lesson plans from the network relegates you to just a burger flipper, like you are just executing the raw materials and I am totally replaceable because anyone could do what I’m doing right now...It doesn’t activate all of our creativity and brilliance and individuality as teachers, so you feel so much less invested.”

New teachers at PACHS felt like their input is irrelevant and viewed the Curriculum & Instruction team as “a distant being/wizard behind the curtain. Our only mechanism for feedback are these obligatory surveys, but how empowering is a Google form?” Even new teachers who were struggling, like Ines, felt they needed more autonomy: “the lack of autonomy was good at

first because I didn't know what I was doing, now the lack of autonomy sucks." And even though teachers have been told that they are able to make changes, they feel that "it would be virtually impossible to make any meaningful changes." Arnold at PAL shared this tension. He felt that, while he has been afforded some autonomy, it is squelched by the rigid conformity to IAs, and, because teachers are partly evaluated by IA student performance, the incentive system forces conformity. As Marisol said, "there's a dichotomy. I am given autonomy, but I can't use it." Teachers spoke at length about the "rules controlled by the network" and the perceived invisible hand of the network "suddenly putting pressure," e.g. required uploads of class recordings, lesson preparation materials, student data tracking, etc. Nicholas expressed frustration when "all the sudden we have three recordings, this, and that, and then we never have any idea what happens with all of that."

And while new teachers in both communities felt that the curriculum was limiting, they also felt like they were not pedagogically developing in the instructional leadership model. Isabelle, another PAL teacher explained, "I feel emotionally supported but not pedagogically or intellectually." Rory spoke about how the IL team was rated highly; however, analysis of the data suggests that teachers do not feel as supported by their ILs in their pedagogical development. Multiple PAL teachers lamented that their "instructional leader has not come to observe my classes very frequently, and I think following through on more regular agreed observations would be beneficial." A majority of new PACHS teachers felt, in one way or another, a lack of support from their IL. Sophie, for instance, explained, "my IL is really supportive; however, she doesn't teach my content area so I feel supported in every other way except about content I can't really go to her." Ines shared that, while "in the beginning of the year we had weekly coaching meetings, we haven't done that in a really long time."

A majority of veterans who spoke on the topic shared similar beliefs about the development of new teachers. Sarah argued that “teachers are not experiencing a fundamental part of teaching” and that, “specifically with the behavior system teachers have to find themselves first before they can be expected to then be successful doing something that they're told to do. I think that's the same with curriculum. So I think autonomy is huge, I think there is a lot of space for it at PAL, but I just don't think there is space to learn how to do it.” She added, “I think it's hard to teach someone to be themselves, and we didn't really provide that.” Others such as Anthony spoke to the irony that the system proliferated only one idea of what successful teaching looks like, but those “who were most successful did not look like it. I took issue with that institutional contradiction,” meaning that most of those who were successful, at least from his perspective, were not enacting the teacher practices and styles propagated by the CMO. Isaac recalled his dismay at “getting pulled to the side as an instructional leader and being told ‘hey, you’re not replicable.’” PACHS veterans also spoke at length to early teacher’s lack of autonomy in curriculum and instruction as evidenced by Caleb explaining that “autonomy decreased as the network grew and it’s a double edge sword because some folks need the prescriptiveness and many don’t. We raised the floor but we capped the ceiling for our new teachers.”

In addition to the concerns about new teacher development, the development of veteran teachers was an overwhelming pattern: in short, there is no plan for development beyond the first year. Indeed, despite joining Polaris for the professional development it promised, Anthony shared that “I wasn’t getting the coaching or PD I would have liked after year one. I was standing still, if not regressing.” Sarah, who held a number of different leadership roles, shared, “I was not fulfilled in my growth as a teacher after year one.” David explained that there is not development for what he called “middling” teachers, those people who cannot or do not want to

move into leadership roles but are no longer new teachers; a category with which he self-identified. He asked, “what are we doing for those bedrock people?” This does seem to be on the mind of Steven who explained that “we have B teachers who we need to hold. I am a little softer on them, which I don’t necessarily see eye to eye with other leaders on. But we need to hold those B level teachers.” In David’s developmental experience, he just found more of the same: he had to attend “the new teacher PD for first-year teachers again” when he joined PAL, “which [he found] a little weird,” and he found himself attending the same PDs, “which after a few times, it’s like I know what the deal is and it loses its luster.” Veterans at PAL, such as Luke, corroborated this perception. Luke, who left at the end of the 2020-2021 school year, shared, “pretty low level PD is forced upon us constantly.” PACHS departed veterans also shared this belief. For example, Eleanor explained, “I was kind of jealous of the new teachers because the PDs weren’t really addressing my needs and where I was. It all started to feel monotonous, and I plateaued.” Weeks after her interview, Eleanor sent me an unprompted email:

I don’t think I mentioned the lack of options within the school for upward mobility. I was open and planning to apply for the DCI fellowship, but I wondered what would come after that since I didn’t really want leadership. I didn’t hear the greatest things about roles within the network, either. I remember wishing we had more options for our development and struggled to find a path that truly resonated.

Eleanor could not find a long-term path within Polaris. Indeed, a number of folks argued in various ways that, as Rachel contended, “Polaris and PAL are incompatible with lifelong teaching,” or as Francesca asked, “What are we doing to make this feel like a career?” Rory clearly recognizes this: “I don’t think anyone here feels like you can make it a career.” Feeling stagnant, many veterans turned to instructional leadership in hopes of growing. For example, Sarah “only wanted to teach,” but she felt compelled to assume instructional leadership despite that fact that she “did not like being in charge of adults.” Even in this role, some veterans still feel unsupported; Beatrice shared, “I felt stagnant as a teacher. I was not getting observed or

receiving feedback. When I became an IL, I didn't grow as a coach. I didn't learn how to manage interpersonal conflict. I couldn't support my teacher."

While veterans felt they were not afforded opportunities for pedagogical development, they also felt as though their experience was not valued. Veterans from both campuses spoke at length about constant surveying, but much more effort was "needed to make an effort to include stakeholders in the decision-making process." Daniel, a PACHS veteran, was more animated in his answer to whether or not he had influence in school-wide decisions: "Hell no! No more surveys. Don't ask me questions you already know *your* answer to." Caleb shared that they are over-surveyed and that there is now no longer trust in them. As such, many stopped completing them. He even wrote a comment in a Polaris-wide survey that read, "if you read this, send me an email so I know you are actually reading it." He never received an email. Yet, veterans have many ideas for how to make the school better, unfortunately, they feel no agency in bringing those changes to life. PAL veterans and departed teachers spoke about how frequently Rory garnered their thoughts and how infrequently they came to fruition.

Four different teachers described the same phenomenon: "there's sort of a weird like gap there and like there's a lot of leadership meetings where we would brainstorm - like we would spend the entire hour putting ideas on posters, etc., and then why did we do that? A month later we're going to do the same exact thing in a staff meeting so there was a lot of sort of idea gathering and not as much acting on things." Daniel found such sessions tiresome: "I'm really tired of talking because we do a lot of talking at PACHS. A lot of talking. A lot of talking. A lot of talking. We never really follow up, we kind of leave it where it is and say okay." PAL veterans affirmed this frustration. For example, Francesca complained, "don't ask for my feedback if you're not going to take it." Overall, veterans and departed teachers believed that

their opinions and expertise were not valued. For example, Luke believed that “PAL is a highly educated staff, but there is a general lack of respect for our experience.” And teachers made a direct link from this lack of agency to attrition, as Eleanor explained, “people leave because they don’t feel valued. They were means to a product, not ends in themselves. They feel disposable.” This feelings of being used and disposability appeared in both new teacher focus groups.

There was one notable shift from this pattern of negative perceptions towards veteran professional development: in veteran focus groups and a number of departed teacher interviews, five teachers visibly and audibly perked up in discussions of certain ventures they had taken on. Sarah, spoke very enthusiastically about designing the Biology curriculum as an LLP and about taking on various student clubs. Phoebe spoke with pride about founding Lioness Law.

Francesca leaned forward toward the camera in discussion of her advisory curriculum to be shared with the school. Ariel used the word “galvanized” in discussing a letter she drafted with colleagues in response to what they perceived to be a failed assembly: “I felt galvanized by that moment, like maybe we can make the community, even society, that we’re in different.”

Beatrice’s gesticulation increased when discussing her work facilitating PD for the whole staff on diversity, equity, and inclusion with her project Confronting History to Change History and with her history working group participation. And Jessica shared that an action research inquiry project she worked on with two colleagues was the “highlight of [her] career by a landslide.” She added, “I literally think my whole life I am going to be striving for that high.” These teachers also expressed deep sadness about feeling insufficient time for such projects anymore. Even Steven lit up when he discussed the one year that the middle school at which he worked prior to PACHS had 100% retention, and they skipped traditional summer PD to work on individual improvement projects: “we were so strong and we only got stronger.”

Finding #8—Administrative Support: While there was a general high regard for and feeling of administrative support from both PACHS’s and PAL’s principals, teachers consistently named lack of administrative support, a school organization correlate, as a reason for dissatisfaction and attrition. Findings suggest that teachers are dissatisfied because they feel that principals lack true agency for school leadership within the larger CMO.

“There are a lot of moves to support me, but I don’t feel supported” (Beverly – PAL New Teacher).

A strange pattern emerged in the findings: while there was a general high regard for and feeling of support from both PACHS’s and PAL’s principals, teachers consistently named that they did not feel supported, and findings suggest that this paradox can be explained because teachers questioned principal agency for their own school’s leadership within the larger CMO.

There was notably high regard for both principals. Indeed, despite leaving Polaris and self-described resentment, Isaiah shared, “I believed in leadership. I really believed, and I still do believe in Rory. I love that little guy.” Teachers in the PAL new teacher focus group, such as Nicholas, discussed how Rory sees him as a person: “I ran into Rory today. He’s the principal but he remembered everything about what I said in our last conversation. He asked about my mom, about my boyfriend...that felt amazing, like my boss remembered all this stuff about my personal life. I felt really supported from an emotional standpoint.” PACHS teachers offered similar endorsements of Steven. Alexandra cried when discussing Steven: “I love SO (an affectionate nickname most of the staff called and still call Steven). I stayed because of him. He constantly supported my development. He was so real. He was one of the best bosses I’ve ever had.” PACHS new teachers universally agreed, “SO is great!” This finding begs the question: if teachers feel so supported by principals, why do they not feel supported?

While some viewed school leadership as “at capacity,” an interesting theory was proposed by Liam: “The size now and the network’s size and influence is such that I think new people don’t always even think the school leadership team has a say in school-wide decisions.” Analysis of the data from interviews at all levels supports this hypothesis. Rachel, as well as

other new teachers, felt that “there are a lot of rules controlled by the network,” while Samantha, a departed teacher, spoke at length about the pressures of Polaris and expressed gratitude to Rory for “shouldering the burden of Polaris’s demands.” Sarah wondered why so many of their proposals failed: “was it Rory? I don’t think so. I think he just couldn’t do much that didn’t align with the network.” Luke, who has since left Polaris, shared that, “if Rory were running an independent school, I’d stay forever.” PACHS teachers expressed similar sentiments in a variety of ways. Alexandra described the community as growing “increasingly corporate,” and that new initiatives felt like “corporate is telling us we need to do this thing now.”

Ariel spoke about how Polaris was a “specter of Big Brother” hovering above the school and how “everything must be approved and aligned.” Ian argued that everything was “a network approach” and “schools can’t do much.” In discussing her own school wide influence, Eleanor argued, “I had no school-wide influence. Principals didn’t either. They were simply carrying out marching orders.” Teachers’ inferences seem to hold at least some validity, as both principals, while they did share generally positive sentiments about their relationship to the CMO, did express feelings of limitation. Rory confessed that, in the wake of the social media student/teacher protesting, “our community wanted to do more, but I felt shackled.” Steven believes that “we need to align on less and do more with the things we do align on.”

While teachers seemed to blame the network for their lack of agency, “nothing could shake the system” as Isaiah explained, they did hold school leaders accountable for two things: 1. what they perceived to be, “strategic moves to show democratic decision-making,” as Anthony described, and 2. poor hiring practices/lowering the bar. Indeed, teachers believed that principals did not have much agency, but they were most frustrated with the constant garnering of perspective and opinion that they perceived as going nowhere. Daniel captured this frustration

well: “don’t ask me questions you already know *your* answer to.” Teachers expressed frustration with the many efforts of school leaders to, what they perceived to be, feign democratic discourse or authentically garner opinion. And while this frustration was clear, teachers’ beliefs about hiring offered an even more prominent frustration.

Departed teachers at PAL felt that there were “too many first-year teachers,” “too much alignment to the TFA model when we know these folks won’t stay,” and that “we didn’t care who we put in front of kids.” Departed PAL teachers spoke at length and with evident frustration about Rory’s hiring decisions. Departed PACHS teachers felt similarly as evidenced by Eleanor sharing, “I saw talent and caliber decreasing each year. There was a clear lowering of expectations.” Even a number of PACHS new teachers shared this frustration, naming that many of their colleagues were unqualified for their positions. Overall, teachers felt that expectations were lowered in who was hired, who was promoted (specifically at PAL), and how teachers were held accountable. According to principals, these frustrations are not unfounded. Rory is well-aware that he “needs to hold people accountable” but has trepidations about “having to find someone else in a reasonable time.” Steven felt a similar tension: “How do you make an aligned teacher feel good, while also holding others’ feet to the fire.”

RECOMMENDATIONS

These findings suggest that attrition and the subsequent reverberations that compound and reify attrition, are negatively impacting PACHS and PAL. Both principals wondered about teachers, as Steven said, “on the cusp.” He asked, “who do we keep and who do we let go?” These findings suggest that school leaders may be focusing on the wrong teachers, as they are currently losing teachers who, by their own barometer, they would like to retain. Thus, rather than wondering who to keep or let go, the question should be: how do we retain those teachers who we want to retain? In shifting to this focus, i.e. placing more concentration on who the community should definitively retain, perhaps school leaders can negate this “cusp” dilemma.

With this priority of retaining teachers who leaders would like to retain in mind and given the overall findings of this study, this project recommends that PACHS, PAL, and Polaris Academies at large implement a number of interventions to improve work environment, teacher development, and the relationship between schools and the CMO. Indeed, this project offers five recommendations to support PACHS, PAL, and Polaris Academies at large in retaining the teachers they are most interested in preserving. Though prior to sharing these specific recommendations, I will share one overarching suggestion: principals must develop individualized retention strategies (The New Teacher Project, 2012). Without a developed plan in place, in which I would include the following adaptive recommendations and even quick technical changes (e.g. coverage stipends), retention efforts are likely to fail. In larger school communities, especially, it would serve principals well to consider secondary leadership in these plans, as a strong secondary leadership team may serve to support the principal in this initiative, in addition to combatting some of the perceptions that findings suggest they hold about their school-wide agency, or lack thereof.

Recommendation #1—Shorten the School Day and Advance Extracurricular Opportunities: Isolate the priorities of in-school time in order to reduce the number of hours teachers and students are engaged in highly demanding academic tasks, and afford time for extracurricular opportunities.

The findings on the matter are unequivocal; the Polaris school day is too long. The hours required are a primary cause for high teacher attrition, and teacher and student testimonials on Polaris protest pages suggest that school length and the substantial workload have negative consequences on mental health. As such, PACHS, PAL, and Polaris at large should shorten its school day by at least an hour. To be clear, this does not mean simply cutting a class. Rather, it could manifest through shortening periods by eight or so minutes, or through the rotating schedule suggested below. While Polaris leadership may not be able to implement this policy immediately due to chartered agreements, there is clear precedence for this policy change in other CMOs (Taylor, 2015). Polaris has relatively strong relationships with Achievement First and KIPP and can learn from this diffusion of policy and precedent, both in terms of how to successfully negotiate this policy change into charter renewals and how to successfully navigate the newly acquired time to positively impact student mental health and teacher work-life. Until the school day can be shortened in their charter, Polaris can build on its work with “Project” by reducing the amount of instructional time and leveraging that time for positive relationship building and extracurricular time. From extracurriculars and sports, to teacher planning time and more, Polaris can use charter revision and renewal waiting time to explore and lay the foundation for activities that will promote happiness, retention, and socialization for its students and teachers. Related to this recommendation, Polaris could initiate a blocked rotating schedule, reducing the number of classes each day to six and rotating classes across the week. Such a practice could even afford an additional class in the schedule, which could be used for electives. Further, the rotation of classes may support reduced stress on teachers who would not have to teach every single class each day. An example of such a schedule is provided below in **Table 4**.

Table 4: Sample Block Rotating Schedule

Schedule Day	Day 1	Day 2	Day 3	Day 4
Period Schedule	Period 1	Period 2	Period 3	Period 4
	Period 2	Period 3	Period 4	Period 1
	Period 3	Period 4	Period 1	Period 2
	Lunch	Lunch	Lunch	Lunch
	Period 5	Period 6	Period 7	Period 8
	Period 6	Period 7	Period 8	Period 5
	Period 7	Period 8	Period 5	Period 6

The research on extended time in school is inconclusive, at best. Many studies have found no significant correlation between the length of the school year and student achievement (Card & Krueger, 1992; Eide & Showalter, 1998; Grogger, 1996; Lee & Barro, 2001; Rizzuto & Wachtel, 1980; Sims, 2008). With respect to length of school day, Baines (2007) reports that “experimental studies have repeatedly found no correlation between time spent at school and levels of achievement” (Baines, 2007, p. 99; Fisher & Berliner, 1985). Similarly, the Third International Mathematics and Science Study (TIMSS) “found no clear pattern between the number of in-class instructional hours and mathematics achievement” (Beaton, et al., 1996, p. 16). And while some data has pointed to positive correlations, the gains are minimal. Using TIMSS data as well as Programme for International Student Assessment (PISA), Baker, et al. (2004) found a very weak positive and statistically insignificant relationship between more school time and improved scores. Another study, conducted by the Massachusetts Department of Education in 2007, found only an average of 5-10% increase in tests scores for a 25% increase in school time. Similar studies conducted by other districts could not replicate this connection (Baker, et al., 2004).

Many of Polaris Academies’ competitors are reducing the length of their school days. In recognition of long hours causing significant attrition, even Success Academies, the infamous beacon of “no-excuses” schooling, reduced the length of its school day (Taylor, 2015). Eva Moskowitz, Success Academies CEO, stated, “we were finding that there were kids who did not

need the extended time” (Taylor, 2015). And Success Academies is not alone in urban CMOs who are cutting back the school day. Both the Achievement First and the KIPP charter networks have shortened their school days. Doug McCurry, former co-chief executive and superintendent of the Achievement First network, directly cited teacher retention as a reason for this decision (Taylor, 2015). Mr. Levin, founder of the KIPP schools, said that cutting time in class was partly in response to teachers and leaders saying that they often did their lesson planning and grading at home; with a shorter instructional day, they can more often complete their work at school (Taylor, 2015). Perhaps, Mr. Levin was leveraging an effective practice of one of his principals. Gabor (2012) described how a KIPP principal confronted teacher burnout by allowing teachers to come in late one morning every week, shortening the school day by an hour, and rotating the Saturday school schedule to significantly limit the number of hours required by teachers. This study and others suggest that principals can protect teacher’s time and reduce teacher workload. It is also important to note that KIPP, at least at the time of the study, operated more as a franchise model with more decisions made at the school level than Polaris (Bennett, 2008).

Reducing the length of the school day would be better for student mental health. There is a dearth of American scholarship on the impact of excessive schoolwork on mental health among adolescents (Lee & Larson, 2000); however, some American research draws correlations between stress/anxiety/depression and higher-intensity programming such as gifted and talented programs (Carapetyan, 1982; Yadusky-Holahan & Holahan, 1983). Given the limited American research, one can look to Korean and Japanese scholarship, where this phenomenon is well-documented. A study published in the *Journal of Youth and Adolescence* reported that Korean and American adolescents who spent less time in active leisure activities experienced more negative affect states during schoolwork and socializing, and they experienced higher levels of

depression (Lee & Larson, 2000). These findings are significant because they speak to the negatively reifying nature of this phenomenon. Too much school is leading to frustration and fatigue for many students (Chung, et al., 1993; Fararo, 1987; White, 1993). Furthermore, more time in school yields less time for active leisure, which compounds and reifies mental health implications (Lee & Larson, 2000). This is doubly true for communities like Polaris where extended school days are coupled with substantial homework. This scholarship demonstrates the importance of active leisure on positive mental health (Brown & Siegel, 1988; Haworth & Hill, 1992; Larson & Kleiber, 1993), among other outcomes.

Extracurricular activities are powerful sites of learning. Paradoxically, the extended schooling policy, at least as it operates at Polaris Academies, is reducing one of the most important sources of learning: extracurricular activities. Significant scholarship has demonstrated the positive impact of extracurricular active leisure time on everything from socialization and self-image (Dragnea, 2000; Pomohaci & Sopa, 2017) to academic performance (Green, 2016). In addition to improving students' academic achievement through improving their social conditions, sense of belonging, friendship networks, and academic self-concept (Green, 2016), extracurricular activities are important sites of knowledge-building about the world which is inextricable to furthered learning (Willingham, 2010).

Recommendation #2—Commit to a Robust Veteran Development Plan: Cultivate strategic and transparent developmental benchmarks for veterans and implement inquiry-based collaborative action research for advanced professional development.

While veterans and departed teachers joined Polaris for its professional development, they feel stagnant and, even, neglected after their first year. This stagnation and neglect is manifest of the lack of professional development specifically designed for them, as well as their perceived lack of autonomy and ability to influence the school. The teachers who were able to share isolated moments of developmental ownership, shared these experiences with pronounced excitement and joy. To support veteran development, teacher longevity, and the school community at large, Polaris leadership should commit to a robust veteran development plan. I would recommend the following be included in such a plan:

- **Recommendation 2.1: Strategic and Transparent Developmental Benchmarks:**

To support veteran teachers in believing that one can, indeed, be a lifelong teacher with Polaris and have their veteranship formally acknowledged, school leaders should develop clear and transparent benchmarks for longevity that are disconnected from instructional leadership and school leadership. There are two ways I would recommend achieving this: title and contract. Indeed, within the Polaris community, the mythologized title of “Master Teacher” is used; however, such a designation does not formally exist. Through their robust evaluation process, Polaris could actually award such a designation to teachers like Eleanor, Beatrice, Jessica, and others who “only wanted to teach.” Coupling such a designation with a salary increase would further validate the benchmark and incentivize teachers to pursue it. Polaris could further develop such a practice through staggered designations leading up to “Master Teacher,” much in the way that Achievement First has attempted to do. In addition to offering a formal designation,

Polaris could use contracts to support longevity. In fact, the PACHS veteran focus group discussed, at length, the negative impact of at-will yearly contract renewals. Caleb, a former Polaris principal, shared, “I don't understand why we can't offer like two or three year contracts.” While definitively not tenure or union-based, offering extended contracts to veterans provides both a symbolic and practical commitment to longevity.

Supported by the research on National Board Certification. Borrowed in many ways from National Board Certification, such recommendations hold a great deal of empirical support. National Board Certification has been shown to positively impact student achievement, with the most pronounced effects for students receiving free and reduced lunch (Goldhaber & Anthony, 2007), students like those Polaris serves. Furthermore, teachers receiving National Board Certification have been shown to be more effective at increasing performance on standardized tests (Cavalluzzo, et al., 2014; Cowan & Goldhaber, 2015) and end-of-course examinations (Salvador & Baxter, 2010). Such gains are likely because National Board Certification has also been empirically shown to improve teaching practice in myriad ways (Cavalluzzo, et al., 2014; Cowan & Goldhaber, 2015; Yankelovich Partners, 2001). Notably, as per my recommendation, the National Board Certification is not simply a title because board-certified teachers are recognized with a \$5,000 salary stipend, while those in challenging schools receive an additional salary stipend of up to \$5,000 (National Board for Professional Teaching Standards, 2021). In summation, such career benchmarks and designations have been shown to support teacher retention, develop teacher leaders, and positively impact student achievement (Jaquith, et al., 2016).

Transparency is fundamental to the benchmarks and the process. Transparency is key to this recommendation. A majority of departed teachers and at least one person in each focus group expressed frustration with organizational transparency in one form or another, particularly as it pertains to advancement. Without clarity on how one moves to new stages of a veteran developmental trajectory, teachers will remain frustrated, perhaps even perceiving a lack of fairness, and the positive impact that such a recommendation may afford will be nullified. This, again, is well-supported by empirical research on compensation and career advancement transparency (Bamberger & Belogolovsky, 2010; Day, 2012; Marasi & Bennett, 2016; Smith, 2015).

- **Recommendation 2.2: Inquiry-Based Collaborative Action Research for Advanced Professional Development:** Veterans at all levels spoke about the lack of a plan for their development, beyond instructional leadership (which many named also did not support their development). At the same time, school leaders face incredible demands on their time and likely do not have the bandwidth to develop advanced professional development sessions for veteran teachers. And, as shared as a unique exception in the development section, teachers who had opportunities to develop their own projects experienced a great deal of satisfaction. In considering all of these findings, I would propose that leaders can rely on veterans to navigate their own development through the use of inquiry-based action research projects. While this could take many forms, I would encourage school leaders to build veteran professional learning communities (PLCs) instead of requiring veterans to act as support in newer teacher professional development and sustain these PLCs throughout the year. In these spaces, veterans would work collaboratively to develop, reflect upon, and share findings from inquiry-based action research projects. For

instance, three veterans may be interested in bringing in more project-based constructivist learning into their already effective classrooms. Through these PLCs, they would research project-based learning and develop interventions. Then they would execute their interventions within their classroom spaces, observing each other in action and collecting data, e.g. video, student work, surveys, etc. Back within their PLCs, they would analyze the collected data and co-watch video in order to refine and perfect the intervention. Within these iterative PDSA cycles, they would support each other in their professional development needs while garnering a sense of autonomy and agency (Bryk, et al., 2015). Furthermore, sharing findings with other veteran colleagues in and of itself would serve as more impactful PD for veterans than what they currently describe. The fruits of this inquiry-based action research could inform the larger school community, providing improved culture, improved relationships, feelings of autonomy, and feelings of school-wide agency.

Limitations of the “workshop” model. While Polaris has certainly perfected the workshop model of Professional Development, the research on professional development impact suggests that more top-down, one-size-fits-all approaches to professional development have little impact on teaching practice (Fullan, 2010; Hofman, et al., 2012). Short-term professional development workshops in particular, much like Polaris’s Summer and Friday PDs, have shown little impact on improving teacher practice (Hammerness, et al., 2005). And while Polaris’s mastery of this model may be benefitting new teachers, veterans unanimously agreed that it is not meeting their needs.

The Empirical support for inquiry-based action research is strong. Research on professional development suggests that, to bring considerable results, opportunities must

be sustained, connected to quotidian practice, and engaged within a community of practice (Fullan, 2010; Hawley & Valli, 1999; Putnam & Borko, 2000). Action research is just that. As pioneers in the field of teacher inquiry, Marilyn Cochran-Smith and Susan L. Lytle write that teachers who engage in action research engage in “systematic and intentional inquiry” (Cochran-Smith & Lytle, 2009, p. 142). Engaging in a cycle of inquiry and reflection, teachers who embrace inquiry as a stance and engage in action research collect and analyze data related to a problem of practice, and, in doing so, they situate themselves as researchers within their own classrooms. Building on the work of Elliot (1976), Kincheloe (2003), and McNiff (2016), Manfra (2019) writes that “by situating teachers as scholars and knowledge producers, action research fundamentally shifts the culture of contemporary school reform and offers an antidote to educational reform efforts that de-professionalize teachers” (p. 164). The vast empirical literature often points back to the work of Cochran-Smith and Lytle (Cochran-Smith & Lytle, 1999; Cochran-Smith & Lytle, 2009; Lytle, 2006), yet Sharon Ravitch (2014) of the University of Pennsylvania summarizes the rationale for this recommendation succinctly in arguing for “the transformative power of taking an inquiry stance on practice” (p. 5).

Practitioner literature supports this as well. In a practitioner’s article for the National Association of Elementary Schools Principals, Roger Vanderhye suggests three “essentials to motivate and retain veteran teachers:” they are to “empower teachers as leader” (p. 40), to “remember that one size does not fit all” (p. 40), and to “create and support collaborative learning teams” (p. 41). This recommendations meets all three of Vanderhye’s essentials.

Recommendation #3—Reimagine the Dean of Students Role: Hire for and formalize as an Assistant Principal, and shift responsibilities from disciplinarian to culture builder.

An important need will emerge, should leaders embrace recommendation #1 and substantially enhance extracurricular offerings at PACHS and PAL: keeping the culture of extracurricular organized. Currently the Dean of Students role is predominantly, if not exclusively, focused on student disciplinary issues. Yet, Losen (2011) finds that there is “no research base to support frequent suspension or expulsion in response to non-violent and mundane forms of adolescent misbehavior; frequent suspension and expulsion are associated with negative outcomes; and better alternatives are available” (p. 3). Reimagining this role to be one in which the Dean of Culture ensures that students are experiencing enriching and joyful non-academic and academic-adjacent opportunities could have powerful impacts on school culture and teacher satisfaction. This role could serve to organize school-wide events and assemblies, provide support for field trips, support teachers in building robust extra-curricular opportunities, and help organize competitions with other schools, among a number of activities. Reconceptualizing the role to a proactive culture promoter instead of a reactive discipline enforcer could diminish the amount of behavior issues, suspensions and detentions the school currently enforces, promote student joy and access, and provide feelings of support to teachers taking on a leadership role, for there is compelling evidence that extracurricular promote positive social behaviors among adolescents (Durlak, 2010; Little, et al., 2008; see **Recommendation #1** for additional empirical support). Such a role could also serve to support staff culture through DEI-related professional development, staff team building, and conflict resolution (Goldring, et al., 2021).

Regardless of whether or not school leaders fully reimagine the role, if at all, one additional recommendation is to promote the position to a true assistant principal role and hire

accordingly. This position is one of the most important roles in the school community and has rippling impacts on students, staff, and families alike (Goldring, et al., 2021). No one with less than five years of teaching/leading experience should be hired for such a role (Goldring, et al., 2021; Searby, et al., 2017). Searby, et al. (2017) found that assistant principals with five or more years of experience reported feeling considerably more prepared and in less need of mentoring; those with fewer years of experience required mentoring (Searby, et al., 2017). This level of preparedness is particularly important for PAL, given the demand on Rory's time for mentoring the Dean of Students.

Recommendation #4—Adjust Hiring Practices: Systematically incentivize experience through transparent salary bands, actively recruit experienced teachers through teacher-specific hiring platforms, and democratize the hiring decisions at the school level.

School leaders at PACHS and PAL have made a considerable shift in recent years to prioritize hiring experienced teachers. They should continue to do this and ensure hiring practices support such a priority. Three specific recommendations to adjust hiring practices are: systematically incentivize experience through transparent salary bands, recruit experienced teachers through teacher-specific hiring platforms, and democratize the hiring decisions.

- **Systematic Fiscal Incentivizing of Degrees:** While Steven named that he is interested in hiring people with terminal degrees, there is not much incentive for a teacher to choose Polaris with that level of education. While the adjustments manifest of **Recommendation #2** will support those with advanced degrees to thrive at Polaris by promoting autonomy and the ability for those to truly engage their content expertise in the form of action research work, there is currently little incentive for those with advanced degrees to join Polaris from a salary vantage point. While principals believe that those with Master's degrees receive a higher initial salary, they were not actually able to name specifically by how much. Were Polaris to clearly name, in a way transparent to all in hiring and beyond, how much more teachers make with an earned master's degree, they would further incentive the acquisition of teachers with Master's degrees and incentive any teachers without their masters or certification to earn that degree (Bamberger & Belogolovsky, 2010; Day, 2012; Marasi & Bennett, 2016; Smith, 2015).

Building on this, there is no salary acknowledgment for doctoral credentials, thus implementing an additional salary incentive here would offer the same incentive: encouraging those with doctorates to join and encouraging those within the community to

earn their doctorates while teaching, should that be of interest to them. Given Polaris's generous private benefaction, they could further promote allegiance to the organization and retention through a transparent and systemic tuition reimbursement policy. Results from a National Bureau of Economic Research Study found that tuition reimbursement "substantially reduces the probability of separating from a firm: participation by those employees hired after the program was implemented reduced their probability of leaving within five years by over 50 percentage points" (Flaherty, 2007, p. 22). In addition to improving retention, the research suggests that such a practice could provide powerful results for the organization. Indeed, Lumina Foundation (2015) reports that a reimbursement program had a 129% return on investment within a two-year pilot."

- **Active Recruitment of Experience:** While leaders expressed interest in experience, the Polaris Recruitment team is not effectively targeting that correlate. Currently, Polaris Recruitment's predominant recruitment tactics involve: generic hiring platforms such as Indeed.com, alumni and Polaris-specific summer fellowships, referrals, and generic undergraduate recruitment at some specific communities. Instead, I would recommend that Polaris Recruitment target teaching hiring platforms such as Schoolspring.com and target education majors and education graduate students at university and college education programs, e.g. rather than joining a job fair at St. Johns or Brooklyn College, actively recruit at St. John's and Brooklyn College's Schools of Education. Here, the research suggests, Polaris would be far more likely to procure those interested in making a career out of teaching (Breaugh, 2009; Ployhart, et al., 2006).
- **Democratize the Hiring Process:** Teachers across the board are frustrated with their principal's hiring decisions. A number of teachers named that they exhorted their

principal not to hire someone who ultimately ended up on staff. Principals discuss the need to make compromises because of the pipeline, something to which teachers are evidently less privy. Furthermore, teachers do not feel much ownership in school-wide decisions. Given all of these findings, I would recommend that school leaders democratize the hiring process. By this, I do not mean simply bringing in the department's Chair or Instructional Leaders to support or even lead the interview. Instead, I would urge school leaders to bring in multiple stakeholders from the community, all of whom have at least one vote in the process, even if the principal's vote holds more weight. Such a practice would increase the perception of school-wide influence, would increase investment in newly hired teachers from colleagues, and would provide teachers a clearer window into the pipeline constraints principals are experiencing (Griffin, et al., 2020; Rim, 2019).

As an example of this, Sarah described in detail the hiring process she experienced at the school she joined after leaving Polaris:

I was interviewed by two parents, two students, two teachers, a physics and another teacher, the assistant principal and the principal. Walking into that room I knew that they meant business and like I knew that this was something that I was terrified of, and I really better convince them. I had a question from every single person, the parents asked me questions, the students asked me questions, and so I knew that the community cared who they were hiring and I did not get that that feeling with Rory because it was just me and Rory. Rory gives out that vibe, but I was not as intimidated at that interview and, and so I think like to some extent the interview process needs to be a little bit more critical of who they hire.

Like Sarah's experience, I would encourage school leaders to include parents and students in the process, not simply as a school building tour-guide, which could increase parent and student investment in the school as well (Seaton, 2017; Tully, 2016).

Recommendation #5—Fix the Polaris Image Problem: Align on less and improve expectation of those alignment foci, push more autonomy to school leaders, reconvene network-level functions, and increase network-level leadership support and listening at campuses.

A clear thread permeated interviews and focus groups: “they,” “the network,” “Big Brother,” “puppet-masters,” “the people behind the curtain,” “robots,” “corporate.” Suffice to say, Polaris has an image problem among its teachers. When I asked participants to fill in the blanks with PACHS/PAL or Polaris, ten of thirteen departed teachers shared: “I joined PACHS/PAL, but I left Polaris.” The image problem is particularly pronounced among new teachers. In focus groups, I asked participants to private chat me how much longer they plan to stay at Polaris. New teachers averaged 1.4 years. Though veterans did not fare much better, averaging 1.6. Polaris must address this image problem soon because the findings suggest it is a major contributor to attrition. These findings mirror the empirical literature on the importance of trust in leadership (Allensworth et al., 2009; Boyd, et al., 2011; Ingersoll, 2001; Johnson et al., 2012; Ladd, 2011; Marinell & Coca, 2013;). Borrowing from Steven, I would recommend that the leaders make a commitment to align on less, improve execution on those alignment foci, and push more autonomy to principals. Steven’s instincts are supported by the literature on school-level autonomy. Jessen and Dimartino (2020) discuss the ways principal agency is limited in CMOs, which contradicts the research on school leadership. Chubb and Moe (1990) argue that society must “nurture a new population of autonomous schools” to reform public education (p. 5). There is even support for this recommendation at the global level: the OECD (2011) found that, in countries where schools are afforded more autonomy, students performed better.

As one possibility to actualize Steven’s recommendation, Polaris could, with its robust database of aligned curricular materials already in place, reduce C&I correspondence and teachers would simply be told that those materials are a resource for them and their Instructional Leader to determine how to use (Myers, 2019). Likely teachers would choose to use the aligned

curriculum rather than spend the substantial amount of time it would take to develop their own plans; however, the choice in the matter could shift perception substantially (Ferrero, 2004).

In addition to reducing alignment, I would recommend increasing network functions and network-level leader presence (Chapman, 2018; Kaiser, 2018). Veterans and departed teachers spoke positively of events that no longer exist/happen less frequently (e.g. convening, cross-regional teacher PDs, etc.), and they stated that such events connected them to the network. Veterans and departed teachers also spoke of relationships with network-level leaders that new teachers do not have. As such, I would recommend an increase in network-level lead presence, but not through inspections or walkthroughs. Instead, network-level leaders should join and lead PDs at school sites, conduct listening tours with teachers about their experiences, co-teach lessons, attend extracurricular functions, and participate in school cultural events (Cunfliffe & Eriksen, 2011; Marzano & Waters, 2009; Murphy & Hallinger, 1986). Torres (2016b) shares a very similar recommendation: “strategies to alleviate teacher burnout could focus not just on *reducing* teachers’ overall workload and responsibilities but also on optimizing and regularly monitoring how teachers feel about support from their principal and the efficacy of professional development they receive” (p. 905). He argues that “formatively and regularly checking teacher perceptions can help schools adjust systems and practices rather than wanting to improve them once teachers are gone” (p. 905). Monitoring and improving teacher-leadership relationships can be a tool to improve teacher satisfaction and retention in CMOs with exacting job demands. Furthermore, including teachers in conversations about attempts to improve working conditions may increase teacher perceptions about their input, thus improving these positive outcomes. The literature on relational trust and school improvement support these strategies (Bryk & Schneider, 2002), as do studies of teacher turnover (Boyd, et al., 2011; Ingersoll, 2001; Ladd, 2011).

CONCLUSION

Empirical literature on teacher attrition makes clear that teacher turnover is a national challenge, particularly within CMO communities, and Polaris high schools are no exception to this phenomenon. And this nation-wide problem is made even more pressing by a significant and growing teacher shortage. I hope that this study's examination of the primary causes of dissatisfaction and attrition at Polaris high schools will provide a useful tool as the organization develops and implements retention plans for their individual school communities and the CMO at large.

Contrary to principal perceptions about the transience of New York City as the key factor in attrition at NYC-based Polaris high schools, the teachers with whom I spoke are deeply committed to the students of New York City and to the school community at large. Indeed, all teachers who have since left New York City stated directly that location was not a factor in their departure; however, key school correlates (i.e. school organization characteristics and work environment, administrative support, professional development, stay ratio, autonomy, and relational demography) are leading to dissatisfaction and, ultimately, turnover – findings that are well-corroborated as leading factors of turnover in schools generally and CMOs specifically. Furthermore, these key schools correlates (particularly work environment, autonomy, and relational demography) and hiring practices are at odds with the personal correlates that principals are most interested in bringing into their community.

Given the current national teacher shortage, it would behoove school leaders and CMO leadership to commit to individualized retention plans that include intentional reforms around hours, development, hiring, and work environment. This project's findings suggest that productive changes should include a reduction of teaching hours in the school day and an

enhancement of extracurricular opportunities, led through the reimagined role of assistant principal of school culture. Analysis also suggests that leaders must commit to robust veteran development through cultivating strategic and transparent developmental benchmarks for veterans and implementing inquiry-based collaborative action research for advanced professional development. Finally, in addition to relatively technical adjustments to its hiring practices, this study also recommends adaptive adjustments to improve teacher's perceptions of and relationship with the CMO at large. Given the findings of this investigation, I expect that commitment to the recommendations offered herein can improve retention rates at PACHS and PAL and the CMO are large, yield a more joyful and collaborative community, improve student academic performance, and further support Polaris schools as a leader in urban education reform.

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APPENDICES

Appendix A: Participant Pseudonym Roster and Demographic Data

Cohort	PAL Departed	PAL New Teachers	PAL Veteran Teachers	PACHS Departed	PACHS New Teachers	PACHS Veteran Teachers
Pseudonym	Anthony David Isaiah Phoebe Samantha Sarah	Arnold Beverly Isabelle Marisol Nicholas Rachel	Francesca James Luke	Alexandra Ariel Beatrice Eleanor Isaac Ian Leo	Ethan Henrietta Ines Rebecca Sophie	Barbara Caleb Daniel Jessica Liam
Demographic Data (Gender)*	Female: 3 Male: 3 Non-binary /Gender Non-Conforming: 0	Female: 4 Male: 2 Non-binary /Gender Non-Conforming: 0	Female: 1 Male: 2 Non-binary /Gender Non-Conforming: 0	Female: 4 Male: 3 Non-binary /Gender Non-Conforming: 0	Female: 4 Male: 1 Non-binary /Gender Non-Conforming: 0	Female: 2 Male: 3 Non-binary /Gender Non-Conforming: 0
Demographic Data (Race)*	Asian: 0 Black: 2 Hispanic: 1 Not provided: Two or more races: White: 3	Asian: 1 Black: 2 Hispanic: 1 Not provided: 1 Two or more races: 0 White: 2	Asian: 0 Black: 0 Hispanic: 1 Not provided: Two or more races: 0 White: 2	Asian: 1 Black: 2 Hispanic: 1 Not provided: 0 Two or more races: 0 White: 3	Asian: 0 Black: 2 Hispanic: 0 Not provided: 0 Two or more races: 1 White: 2	Asian: 0 Black: 2 Hispanic: 0 Not provided: 0 Two or more races: 1 White: 2
Departure Year*	2019: 2 2020: 4	N/A	N/A	2016: 1 2017: 1 2018: 2 2019: 2 2020: 1	N/A	N/A
* All demographic data procured from school-based staffing records. While I could report data on each individual, I have consolidated the data to offer clarity on representation while also preserving anonymity.						

Table 5: Participant Pseudonym Roster and Demographic Data

Appendix B: Interview Protocols

Interview protocols for four separate participant groups:

- School leaders
- Recruitment directors
- Departed teachers
- New and Returning

School Leaders: School Leader Interview Questions

Preamble:

- Thank the participant for participating
- Describe the study
- Do you consent to being recorded? [Start the recording]

1. Tell me about the ideal teacher you hope to bring into your school.
 - What are their characteristics (age, gender, race/ethnicity, marital status, parental status, commuting needs, full-time teaching needs)?
 - What are their qualifications (ability [e.g. test scores], education [e.g. selectivity], graduate degree)?
 - What do they do, e.g. interact with kids, engage with staff?
 - Why would you say these characteristics and qualifications are ideal?
2. Who is most likely to get promoted in the school that you lead?
 - How many years of experience does one have moving into instructional leadership?
 - Can you clarify the organizational requirements versus what you are looking for?
 - What are you looking and listening for as factors leading to promotion?
3. Tell me about your hiring process?
 - Start to finish, how does a teacher come to be employed at your school?
 - In the early recruitment stages, for what specifically are you looking?
 - What would cross someone off right away?
 - Describe your “job preview”?
 - What do experienced teachers tell you about how realistic your job preview was?
 - Have you made any changes/adjustments to your hiring practices to attempt to recruit/hire teachers who stay long than X years (x=current average of teach retention)?
4. Let’s talk a little about school climate.
 - What are the qualities of school culture/climate with which teachers most often express satisfaction?
 - What are the qualities of school culture/climate with which teachers most often express dissatisfaction?
 - What do teachers say about the degree of support they experience at your school?
 - In what ways do they say they are supported?
 - In what ways do they want more support?

5. Based on what teachers tell you, what are the leading causes of attrition?
 - What evidence supports this conclusion?
 - To what extent are teachers afforded autonomy here?
 - How would you describe the discipline system in your school community?
 - How would you describe the work demands here?
 - To what extent do teachers influence school-based decisions?

6. Tell me about your school's relationship to the CMO.
 - What have been the greatest benefits of working as a school community within a larger CMO?
 - What have been the greatest challenges of working as a school community within a larger CMO?
 - From your perspective, what factors not within your locus of control (external factors) are leading to attrition?
 - Your school community is at-will, have you ever explored tenure or unionism in any way?

7. What would you say are the major impacts of attrition on your community right now?
 - How is attrition impacting new teachers?
 - How is attrition impacting veteran teachers?
 - How is attrition impacting you?
 - How is attrition impacting student achievement?
 - How is attrition impacting school culture?

8. I know that attrition is a challenge for all principals, can you tell me about any steps you have taken to combat attrition/turnover?
 - What policies have been created or changed?
 - What practices have been designed or revised to keep changes?
 - What structures have been put in place to keep teachers?
 - What do you perceive to be the impact of those steps?

9. If you can wave a magic wand and change three things to improve retention rates in your school, what three things would you change?

Recruitment Directors: Recruitment Directors Interview Questions

Preamble:

- Thank the participant for participating
- Describe the study
- Do you consent to being recorded? [Start the recording]

1. Tell me about your hiring process.
 - Start to finish, how does a teacher come to be employed at a Polaris Academy?
 - In the early recruitment stages, for what specifically are you looking?
 - In the latter recruitment stages, for what specifically are you looking?
2. Tell me about recruitment's relationship to individual schools and the CMO network?
 - Whose priorities are weighed more heavily: principals or network?
 - Do we experience tension/mismatch between these stakeholders?
3. Why are you recruiting teachers from your current predominating sites?
 - Are there specific institutions and organizations from where you seek to recruit?
 - Why from these locations specifically?
 - Do school or CMO leaders ask you to visit/recruit from anywhere specifically?
 - What artifacts can you share that highlight who and from where you are recruiting?
4. To what extent do you provide a realistic "job preview," that is a realistic depiction of what a work experience here will be like?
 - How do you communicate a realistic depiction of the autonomy teachers will experience?
 - How do you communicate a realistic depiction of the school discipline model teachers will experience?
 - How do you communicate a realistic depiction of the workload teachers will experience?
 - How do you communicate a realistic depiction of the influence teachers will experience?
5. Is there any follow-up with teachers who exit the hiring process?
 - Is there a formal process?
 - Do you get informal feedback?
 - What are the primary reasons teachers halt the hiring process?
 - What are the primary reasons teachers do not accept an offer?
 - Have any improvement processes that have changed practices or policies round recruiting been put in place in light of attrition problems?
6. From your vantage point, what are the leading causes of attrition?
 - Is the recruitment team afforded any data on attrition and hiring?
 - Have you made any changes/adjustments to your hiring practices to attempt to recruit/hire teachers who are more likely to stay?

Departed Teachers: Departed Teachers Interview Questions

Preamble:

- Thank the participant for participating
- Describe the study
- Do you consent to being recorded? [Start the recording]

1. Why did you leave?
 - What were the personal factors in that decision, e.g. marriage, move, etc.?
 - What were the school-based factors, e.g. class size?
 - What were the out of school factors, e.g. job opening, policy?
2. Tell me why you joined Polaris Academies.
 - What were the factors that initially appealed to you?
 - To what extent did you have a clear picture of how the school functioned?
 - Why, would you say, did you ultimately accept your offer?
3. Tell me about your first year.
 - What did you enjoy in your first year?
 - What did you not enjoy in your first year?
 - To what extent were you able to make decisions about your own classroom/curriculum/practice?
 - How would you describe your experience with the school discipline system?
 - What influence did you have on school-wide decisions?
 - How was your experience with the workload?
 - What were the expectations of workload?
 - To what extent was your experience with workload a result of formal expectations and to what extent was it a result of expectations you had for yourself?
4. Tell me about your latter years.
 - How many years were you a teacher at Polaris?
 - Did you experience promotion in any way?
 - What did you enjoy in your latter years?
 - What did you not enjoy in your latter year?
 - To what extent were you able to make decisions about your own classroom/curriculum/practice?
 - How would you describe your experience with the school discipline system?
 - What influence did you have on school-wide decisions?
 - How was your experience with the workload?
 - What were the expectations of workload?
 - To what extent was your experience with workload a result of formal expectations and to what extent was it a result of expectations you had for yourself?
 - Did you notice any substantial changes over your time there?

5. Tell me your experience with school climate.
 - What are the qualities of school culture/climate with which you were satisfied?
 - What are the qualities of school culture/climate with which you were satisfied?
 - How supported are teachers by school leaders?
 - Did you notice any substantial changes over your time there?

6. Polaris experiences high levels of attrition, from your vantage point, what are the leading causes of attrition?
 - The research points to autonomy as an important factor in teacher satisfaction and retention, to what extent are teachers afforded autonomy here?
 - The research points to intense discipline systems as cause of attrition, how would you describe the discipline system in your school community?
 - The research points to demanding workloads and long hours as a leading cause of attrition (especially in conjunction with salary), how would you describe the work demands here?
 - The research points to perceived influence on school-based decisions as an important factor in teacher satisfaction and retention, to what extent do teachers influence school-based decisions?

7. Tell me about your school's relationship to the CMO.
 - What do you perceive as the greatest benefits of working as a school community within a larger CMO?
 - What do you perceive as the biggest downsides of working as a school community within a larger CMO?
 - To what extent did the CMO play a role in your departure?

8. If you could wave a magic wand and change three things that would make you want to stay longer, what would you change?

9. Fill in the blanks with PACHS/PAL or Polaris. I joined _____ and/but I left _____.

Focus Groups: Current New and Veteran Teachers

Preamble:

- Thank the participant for participating
- Describe the study
- Describe how a focus group works.
- Explain that no one other than me will have access to raw data and I will only use anonymized quotes
- Provide email should they wish to share something privately
- Do you consent to being recorded? [Start the recording]

1. Tell me why you joined Polaris Academies.
 - What were the factors that initially appealed to you?
 - What was the recruitment/interview process like?
 - Why, would you say, you ultimately joined?
2. Tell me about the school culture/climate?
 - What are positive aspects of school culture?
 - What are less positive aspects of school culture?
 - What autonomy are you afforded?
 - How would you describe your experience with the school discipline system?
 - What influence do you have on school-wide decisions?
 - How is your experience with the workload?
 - How supported do you feel?
 - Have you noticed any substantial changes over your time there?
3. Polaris experiences high levels of attrition, from your vantage point, what are the leading causes of attrition?
 - The research points to autonomy as an important factor in teacher satisfaction and retention, to what extent are teachers afforded autonomy here?
 - The research points to intense discipline systems as cause of attrition, how would you describe the discipline system in your school community?
 - The research points to demanding workloads and long hours as a leading cause of attrition (especially in conjunction with salary), how would you describe the work demands here?
 - The research points to perceived influence on school-based decisions as an important factor in teacher satisfaction and retention, to what extent do teachers influence school-based decisions?
4. How are you experiencing attrition?
 - How many teachers leave every year?
 - What impact does attrition have on you specifically?
 - What impact does attrition have on the school community, e.g. practically, culturally, etc.?
 - What impact does attrition have on students?

5. Tell me about your school's relationship to the CMO.
 - What do you perceive as the greatest benefits of working as a school community within a larger CMO?
 - What do you perceive as the biggest downsides of working as a school community within a larger CMO?
 - How do you experience Polaris the CMO in comparison how you experience NSA/PAL?
6. If you could wave a magic wand and change three things that would make you want to stay longer, what would you change?
7. Private chat me. How many more years do you plan to stay at Polaris?

Appendix C: Full Qualitative Analysis Codebook

Category	Subcategory	Correlate Code	Description	Sample Quote
Personal correlates: Composed of teacher characteristics and teacher qualifications	Teacher characteristics: Refers to teacher characteristics that are not specifically teacher qualifications	Age	Specific reference to teacher age	"I can't remember the exact age that I was, but I joined Polaris in 2012 right after graduating through Teach for America, and so I guess, I was maybe like 27 or something."
		Gender	Reference to teacher gender	"I remember it was a really big deal to me when I saw that Julie Jackson was named President. Truly just it was like a big deal as a black woman to see a black woman in that position, but at the end, that same breath, I definitely was like wait like, so this is supposed to just erase all of the micro aggressions that continue."
		Race/ethnicity	Reference to teacher race/ethnicity	"I felt as though as a black male that my development or how I move forward with the Charter school network was in the hands of somebody else."
		Marital status	Reference to teacher to significant other, partnership, marriage	"I wanted to support my family, my future family life really that's what my husband and I want to do."
		Children	Reference to teacher family and children	"I know people who have had children but to some extent, yes, my expectations of how I, like my willingness as a mother right is not compatible with the schedule."
		Satisfaction	Reference to teacher satisfaction	"I definitely was not super satisfied with my experience in my new role."
		Full time teaching	Refers to the personal identification some assume as teachers, i.e. being a teacher is part of who I am	"I joined excited and eager to learn and be developed and grow. And I left wanting to leave the education field. Mind you I have two masters in education and teaching is who I am."
		Founder*	A term used by those who help begin new schools, e.g. early PAL teachers	"Those of us who are founders had that that founder mentality of like whatever happens in the day I would spend I would spend nine hours in a day if that meant that my kids could walk away feeling better about themselves feeling good about their essays so. But it did very much feel like we took that upon ourselves, and we were encouraged to."
		Distance to school	Reference to length of teacher commute	"I was commuting about an hour and fifteen to work every day. And while that's not abnormal, you know with the hours that Polaris holds, getting there by seven at least every morning...and then leaving by 5pm I was gone from 5:10am until 7:10pm."
	Teacher qualifications: Reference to teacher to teacher qualifications	Ability (test scores)	Reference to teacher ability as determined via test scores	"I feel like I didn't commit like a dereliction of duty, because I always think my students' scores were strong."
		Educational Selectivity	Reference to selectivity of undergrad, graduate or preparation program	"When I graduated high school, I was in the top five top 5% of my graduating class and I went to Spelman."
		Graduate degree	Reference to teacher to procurement or possession of graduate degree	"I don't know that I necessarily look for like graduate degrees or certification, etc., but the years of teaching is probably the one that I'm I get the most excited about."
		Certification	Reference to teacher certification	"And so, while I was in the process of getting my certificate transferred over I knew I could only teach at a private school or charter school. So I applied to Polaris and I had an interview with Rory really was inspired by the interview the thought of founding a school was very intriguing to me and they would accept my non-teaching certificate application so I accepted that job."
		Highly qualified	Reference to teacher credentiality as highly qualified (NCLB/ ESSA)	N/A
		Internship	Field placement/student teaching/etc.	"My first year – I was part of this Harvard Graduate School thing, So I was actually 60% so I taught two classes and then got a stipend to cover the rest of my salary and a had a coach in the school and a coach at my master's program."
		Specialty area (STEM, SPED)	Reference to teacher specialty area (stem/sped)	"In my master's program, STEM integration and real world application were big stressors and that's one of the things I think is really missing."
		Experience	Reference to teacher experience	"I had two years of experience prior to PAL. I was in TFA."
		Prior non-teaching career experience	Reference to teacher prior non-teaching career experience	"I moved to Brazil for a Fulbright grant for two years and then moved back and worked at Ascend charter schools for five months before transitioning to PAL."

School Correlates: Composed of school organizational characteristics, school resources, student body characteristics, and relational demography	School org characteristics: Reference to teacher school organizational characteristics.	School Size	Reference to school size	“As the school started to grow, there just became more issues. We saw that there were more issues than just having good teachers in front of students. There was a lot of systematic issues, and how are we thinking and controlling students - that was an issue.”
		Urbanicity	Reference to school urbanicity	“We needed like basic adolescent psychology classes right like teenagers do X, Y, or Z, not because these kids are from the hood, not because they hate you, they do it because all teenagers need structure and they are subconsciously screaming for it all the time.”
		Sec. vs. elem. level	Specific references to distinctions between secondary and elementary level of schooling	“Teachers leaving is just like a Black man getting killed - they become numb to it - you know - because it happens so much and it's been happening over the course since elementary school, middle school, high school - so it's not the first time they seen this or experience it and they know that usually all of the good teachers are people that they can connect with usually their going to leave.”
		Private, public, charter	Reference to distinctions between private, public, and charter schools	“To be honest, I don't think charter schools know what they want culture to look like.”
		Work environment	Overall perceptions of work environment	“It was not a healthy environment. Most of the people who I knew who worked there have like some serious issues as a result.”
		Administrative support	Feelings of support from school leadership	“And Rory was always like there for me to a certain extent, I can never say like he was never there. If I needed to talk, he'll talk and yeah he always vouched for me to a certain extent.”
		Teacher collaborations	Reference to teacher's opportunity to and actual practice of collaboration with other teachers	“Staff culture was a mess and student culture was a mess. We were three fourths through the year two and we literally didn't know what to do. We were all the founders together we're just like okay, we need to plan and all of us were just like at this point we're trying to finish the year there's literally nothing we can do about it.”
		Teacher leadership	Teacher influence at the school level	“I started as founding Algebra I teacher. I also served as the Algebra I lead lesson planner for the network that same year, the first year that I joined. Then I became a grade level chair somewhere in there. Yep I was a grade level chair and math instructional coach. In my third year I was slated to no longer teach and I became the head of lower school.”
		Professional development	Reference to professional development provided to teachers	“Pretty low level PD is forced upon us constantly.”
		Induction mentoring	Reference to induction mentoring programs offered by the school	“I had to go back to Polaris PD for first year teachers, which was like a little weird.”
		Classroom autonomy	Feelings of classroom autonomy, control of one's curriculum and instruction	“Autonomy is very limited when it comes to the lessons.”
		Hours*	Reference to hours spent in school or working	“I'm over here teaching literally sunup to sundown...it was just too much, like 12-13 hour day, literally all day. Our second year we were having huddle every day, we had huddles every day for the like the first two quarters like 7:35 every single day. Every single day...[and] we wrapped up at like 5:30.”
		Inequitable practices*	Direct reference to practices perceived as inequitable by teachers or leaders	“Students are penalized for doing things that didn't make sense.... The system is sold as restorative – it is not restorative.”
		Stay ratio	Teacher retention rate at the school	“If all these people leave, then why am I here?”
		Extracurriculars*	Reference to extracurriculars and non-academic opportunities for students	“People were too exhausted to run after school programming.”
Dean/Classroom Management*	References to classroom management and school discipline practices, including the Dean of Students	“We need to throw away the discipline system as it is; the discipline system in so many ways is just not working. Our kids are being penalized for things that don't make sense and it's taking so much time in terms of detention and prevents them for participating in other things that would probably curb a lot of behavior anyway.”		
Instructional Practice*	Reference to teacher to school instructional practice, e.g. Teach Like a Champion (TLAC)	“I wouldn't put my name on...the heartless practices of TLAC.”		

		Coverage*	Reference to coverage due to absences	“Coverage is the most disheartening and soul crushing thing.”
		Teacher student relationships*	Reference to teacher-student relationships	“They had a problem with how we build inter-personal relationships so that wasn't a priority.”
		Teacher quality*	Perceptions of teacher quality within the school community	“We didn't care who we put in front of kids.”
	School resources: Reference to teacher to resources available at the school community	Expenditure	Reference to teacher expenditure	“We spend time doing this planning at the end of the year, but we never implement none of that the next year. So it was a lot of that stuff that was going on - let's talk about it, let's act like we're going to do it, and when the time come operations says we don't have budget, we don't have a budget for mentoring kids and setting up this thing or whatever.”
		Class size	Reference to class size	“One thing I was thinking about was smaller class sizes. When we're back full time I know class sizes are typically approaching 30 kids and then in the zoom calls, I know there are teachers that PACHS that have 80 kids on a zoom call and that's crazy.”
		Classroom assistants	Reference to classroom aids and assistants	“Our ICT situation is very unstructured and it can be discouraging trying to co-teach with somebody who doesn't know the content and we don't we have meetings every week - there isn't a lot of support.”
		Teaching materials	Reference to teaching materials, e.g. aligned curriculum	“We have a very rigid curriculum that's not really working too well for [students].”
	Student body characteristics: Reference to student body characteristics	Student achievement	Reference to student academic performance	“I came to find that 100% of students are going to college and they're doing so by way of A.P. for all, so you have students who are on a 4th grade math level taking algebra two in 10th grade because you said that they're on the A.P. for all track when A.P. for all it just is not equitable when you talk about equity and where students are and what they need.”
		Percent minority	Reference to racial/ethnic demographic of student body	“I was working Summer Academy and all the kids in it were Black. None of the Latino kids were in Summer Academy, which I thought was weird. And not only were all the kids in there black, it was like 90% boy and 10% girl with IEPs and girls who were really non binary or queer presenting masculine girls.”
		Poverty	Reference to economic disadvantage of students and school neighborhood	“There is something sinister about all these white people telling these poor black kids what to do.”
		IEP/LEP*	References to special education and English proficiency levels	“How do we grapple with the nuances related to special education related to students who don't want to go to college and how do we balance that with high expectations, I feel like there wasn't a space to have that conversation constructively.”
	Relational demography: References the compositional influence of those around teachers.	Teacher-principal race/gender match	Reference to teacher teacher-principal race/gender match	“I just could not leave my development at the hands of another white male and that's what it came down to me because it's like if I constantly did that it's like I can't allow you to define my trajectory in this in this field.”
		Teacher-teacher race/gender match	Reference to teacher-student race match	“One of the questions that a lot of like teachers was asking was like, how do you just build relationships with kids, but it was primarily white teachers asking you how do you build relationships with kids or how do you get them to do the thing or get into a straight line and not get on your nerves and I'm just like I'm sorry, this is not the thing we're talking about like, because, if you want somebody to get in line, if you was owning the space, you would know how to do that; if you was talking to your people, or whatever the case.”
		Teacher-student race/gender match	Reference to teacher-teacher race match	“There is something sinister about all these white people telling poor black kids what to do.”
	External correlates: Composed of accountability, school improvement, and work force	Accountability: The developments in programs and initiatives that aim to make changes to the teacher labor markets and attract and retain	Assessment impact	Evaluation used for school-level decision making
Teacher effectiveness			Measured by a composite evaluation score or value-added score”	“I realized like even putting in this work is not going to meet the results that I want like. I never got the results that I wanted. And I believe it was because of our systems because my teaching elsewhere would be considered like this master teacher or whatever, whatever the trajectory is at Polaris.”

	qualified and effective teachers	CMO*	Specific reference to the CMO at-large and its accountability influence on the individual school	"I joined PAL and I left Polaris okay. That was a really good last question."
		Merit pay	Includes discussion of salary connected to tests or indicators of teacher success	N/A
		Federal policies NCLB/ESSA	Specific reference to federal policies impacting the school	N/A
		Principal effectiveness	Includes direct reference to and discussion of principal's influence on the school community	"I think Rory knows what he wants to do. He knows how he wants the school to feel. He brought the people along and make it happen. I think that there's other agendas somewhere and the lie that gets pushed removes his vision."
	School improvement: Efforts by school leaders to improve practices at school	Mandated school reform	Includes discussion of mandates by the CMO/State/Federal Government required by the school to implement	"Typically across Polaris Academies, I learned that all students are going to be promoted like they're going to go to summer school we're going to make a way for them to pass."
		Research-practice partnership	Specific references to partnerships with Universities or practices specifically derived from research	N/A
	Work force: Refers to available human capital and hiring processes. Includes the percent of new employees added during a hiring period (the accession rate), late hiring, retention bonus and incentives, and tenure reform	Employment rate	Refers to length of time it takes to bring a new employee into an open position	"The pipeline can get very dry, especially for math and science, and you just have to interview anyone who comes your way."
		Accession rate	Number of new employees hired during a period of time	"Everyone is in their first 1-2 years and it's frustrating."
		Hiring*	Refers to organizational practices around recruitment and hiring	"I very much like the gritty nerd type of person."
		Late hiring	Includes specific references to hiring of employees after school year has begun	"So I was like we'll bring you on midyear see how it goes and we'll evaluate it and he's been really, really good ever since."
		Salary	Includes reference to compensation	"I would definitely say higher pay, of course; we're educators, we do it all."
		Promotion*	Includes specific reference to employees taking on new roles within the school or striving to do so	"And the person who he was actually going to put as a chair of the math department is one someone who every instructional coach told him no. This person never met his deliverables, like any deliverable. Year three, he was walking out of classrooms, like going in the classroom yelling at students, knocking bookshelves down, like it was really, it was that bad and this is someone who Rory is going to make math department chair."
		Retention bonus	Refers to a bonus many schools provide for persisting for a period of time	"I think they have the five and 10 year bonus, but like there must be ways to innovate."
Teacher Departures*		Refers to teacher departures and its impact on the school at large	"Not enough people stay long enough for meaningful relationships."	
Non-teacher salary		Includes reference to salary alternatives teachers could earn outside of teaching or additional income coming in through secondary employment	"I think of to two reasons come to mind: one is wanting to try something new and two is money so like if you could take the skills and go elsewhere, maybe in the corporate world or something like that."	
Union	Refers to Union influence on school, which, does not exist at Polaris	"When we don't have a Union and we don't feel like we have a say, the only way to respond is with our feet. To leave."		
Tenure	Refers to tenure policies and practices, which do not exist at Polaris	"People fear they're not going to be offered a contract come next year, year after year, year after year, I don't know what the whole concept of contract thing is, I get it, but at the same time, look at public schools with tenure and I wonder - does that play a big huge role into people's thinking of staying for long term."		
* Indicates a code not initially drawn from Nguyen's (2018) but added based on transcript data.				

Table 6: Full Qualitative Analysis Codebook

