Improving Teacher Satisfaction in Richmond Public Schools

Applied Policy Project

Prepared by Andrew W. Bishop for Richmond Public Schools
Frank Batten School of Leadership and Public Policy
University of Virginia
May 2020

Table of Contents

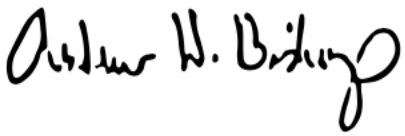
Important Details

Acknowledgements:

I would like to thank a number of individuals who helped elevate this project. Professors Andrew Pennock and James Wyckoff continually pushed my thinking and encouraged me throughout this process. At Richmond Public Schools, Michelle Hudacsko and Luke Hostetter have mentored me and served as thought partners as this project developed. My parents, Paul and Susan Bishop, as well as my brother, Paul Bishop Jr., have given me endless support through all of my endeavors. I would not be where I am today without you.

Honor Statement:

On my honor as a student, I have neither given nor received unauthorized aid on this assignment.



Disclaimer:

The author conducted this study as part of the program of professional education at the Frank Batten School of Leadership and Public Policy, University of Virginia. This paper is submitted in partial fulfilment of the course requirements for the Master of Public Policy degree. The judgements and conclusions are solely those of the author, and are not necessarily endorsed by the Batten School, by the University of Virginia, or by any other agency.

Additionally, the author would like to disclose that he is currently an employee of Richmond Public Schools. The judgements and conclusions contained within this paper are solely those of the author, and are not necessarily endorsed by Richmond Public Schools.

Executive Summary

In the spring of 2019, only 32% of teachers in Richmond Public Schools (RPS) were satisfied with their school climate and working conditions (Hudacsko, 2019). While teacher satisfaction increased to 41% in January, 2020, nearly 60% of teachers remain dissatisfied (Hudacsko, 2020). Quantitative analysis of RPS survey data only provides limited insight into the underlying dynamics of teacher satisfaction across the division. If RPS wishes to improve satisfaction, it must conduct its own program evaluation involving the collection of qualitative data.

In this project, I provide three alternatives for RPS to conduct its own data collection process:

1. Division analysts conduct one-on-one interviews with a random sampling of RPS teachers
2. Principals conduct school-based focus groups with teachers
3. Use a positive deviance case study model to identify practices leading to high teacher satisfaction

After evaluating each alternative based on the criteria of effectiveness, cost of implementation, data quality, and timeline, I recommend that RPS implement Alternative 1: Division analysts conduct one-on-one interviews with a random sampling of RPS teachers.

I recognize that the data collection process is time and resource intensive. As a result, I have provided RPS with a model of how to use the academic literature to make improvements within specific domains of teacher satisfaction without needing to collect additional data. This model discusses how RPS can improve teacher professional development to achieve higher levels of satisfaction.

Given that RPS is closed through the remainder of the 2019-20 school year due to COVID-19, I recommend that RPS begin identifying and implementing best practices identified in the literature to improve teacher satisfaction. Once schools open again in the fall, RPS should then begin to implement Alternative 1 and conduct one-on-one interviews with teachers.

Introduction

Problem Statement:

Only 32% of RPS teachers were satisfied with their school climate and working conditions in the spring of 2019 (Hudacsko, 2019). With over 1,500 teachers in the division, this meant that approximately 1,000 teachers were dissatisfied with their experience. When RPS conducted its Mid-Year Teacher Satisfaction Survey in January, 2020, teacher satisfaction increased by 9 percentage points to 41% (Hudacsko, 2020). While this increase is certainly welcomed, it is difficult to ascertain exactly why this happened. Additional data are needed to better understand the root causes of teacher dissatisfaction.

Purpose:

In this project, I aim to help RPS improve teacher satisfaction across the division by providing division administrators with a variety of alternatives they can pursue. I will begin by using data from the RPS Mid-Year Teacher Satisfaction Survey to identify specific areas where RPS can improve teacher satisfaction. Next, I will review the teacher satisfaction literature, focusing specifically on the areas that RPS can most improve. I will then provide RPS with two distinct paths that it can follow based on these findings.

The first path encourages RPS to conduct its own internal evaluation of teacher satisfaction. This evaluation will allow RPS to gather qualitative data to better understand underlying dynamics of teacher satisfaction within the division. I will evaluate three alternatives for qualitative data collection based on four distinct criteria and provide RPS with a recommended option.

The second path recognizes that collecting qualitative data is a challenging and time intensive process in which RPS may not currently be able to engage. As an additional alternative, I have provided RPS with a model of how it can glean best practices from academic literature and estimate how implementing them within the division can improve teacher satisfaction.

Background

An overview of RPS:

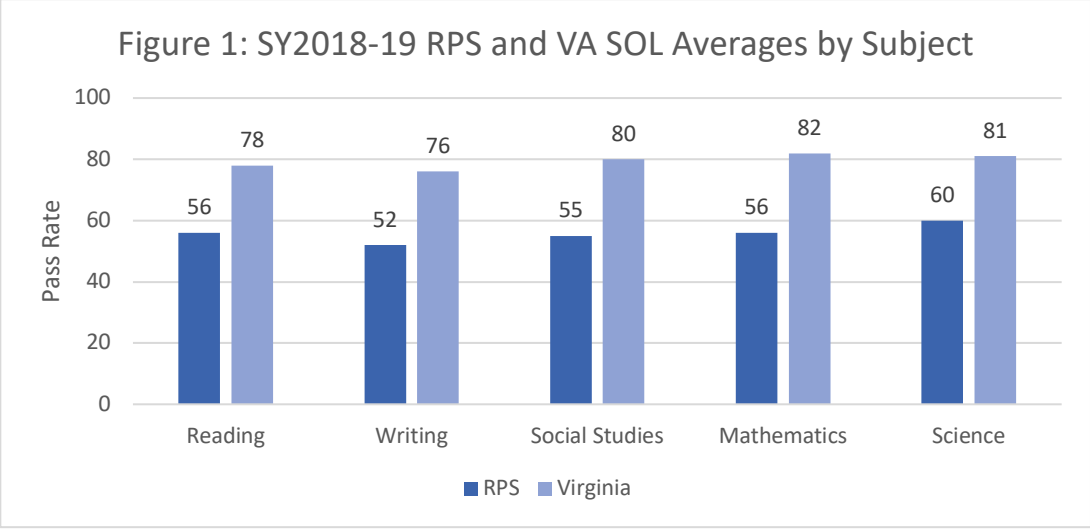
RPS is a mid-sized, urban school division located in the city of Richmond, VA. The division serves approximately 25,000 students across 44 schools (Virginia Department of Education [VDOE] 1, 2020). The division's stated mission is "to prepare our students to become successful, contributing members of society through innovative and compassionate learning communities" (Richmond Public Schools [RPS] 1, 2019). The division employs approximately 3,000 teachers and staff, and has an operating budget of nearly $400 million (RPS 2, 2019). The division is currently led by Superintendent Jason Kamras, and is overseen by the Richmond Public Schools School Board.

Student demographics in RPS:

RPS is a racially and ethnically diverse school division, with 63% of students identifying as Black, 19% identifying as Hispanic, 14% identifying as white, and the remaining 4% consisting of other races (VDOE 1, 2020). Approximately 14% of students have disabilities, and 14% of students are English Learners (VDOE 1, 2020). RPS is considered an Economically Disadvantaged division by the VDOE, meaning that over 60% of students are Economically Disadvantaged (Hudacsko, 2019). Economically Disadvantaged students include those who are eligible for Free/Reduced meals, Medicaid, or TANF, or are identified as migrant or experiencing homelessness (VDOE 2, 2020).

Student outcomes in RPS:

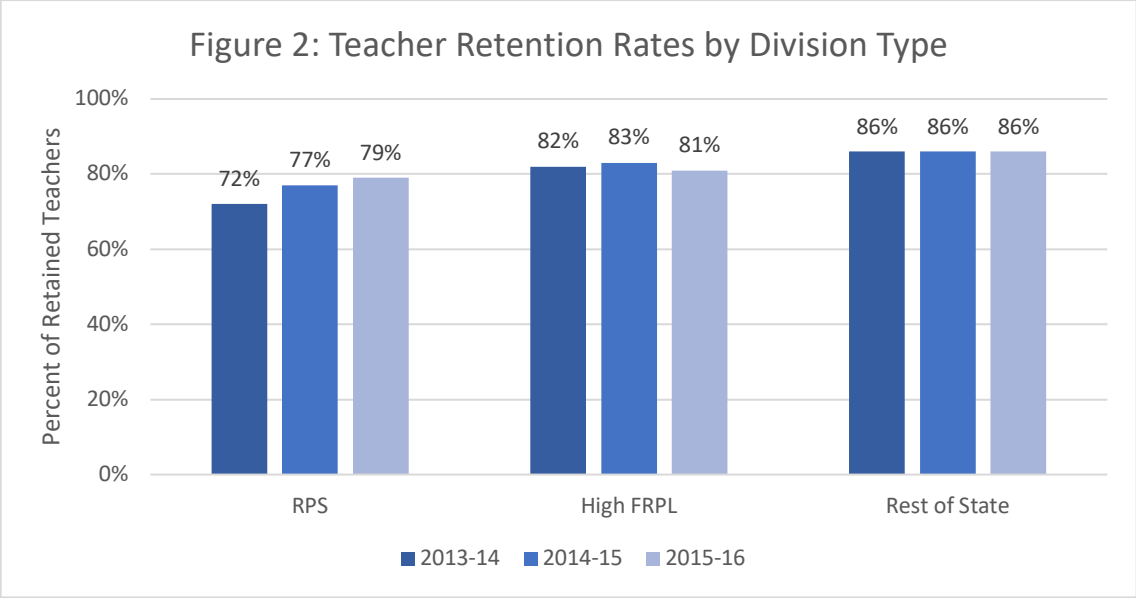
RPS faces a number of academic challenges that it is working to address. With respect to Standards of Learning (SOL) test performance, RPS performs below state averages for all subject areas (Hudacsko, 2019). In 2019, only 10% of 10th and 11th grade students were considered college and career ready by College Board based on PSAT scores (Hudacsko, 2019). Furthermore, the RPS four-year on-time graduation rate is far below the state average (Hudacsko, 2019).



Source: Hudacsko, 2019

Teacher outcomes in RPS:

In 2016, the most recent year with available data, RPS had a 79% teacher retention rate (Hudacsko, 2019). RPS has a slightly lower rate of teacher retention when compared with the 81% average of similar divisions with high levels of poverty, indicated through the percentage of students who receive free or reduced-price lunch (FRPL) (Hudacsko, 2019). This gap is even wider when compared with the remaining divisions throughout the state of Virginia, which averaged 86% (Hudacsko, 2019). While the rate has increased since the 2014 low of 72%, there is still room for improvement (Hudacsko, 2019). RPS has set a target of increasing teacher retention to 85% by the end of the 2022-23 school year (Hudacsko, 2019).



Source: Hudacsko, 2019

Improving division outcomes through Dreams4RPS:

In 2018, Superintendent Jason Kamras and the RPS School Board developed a five-year strategic plan known as Dreams4RPS (RPS, 2018). This plan identifies ten goals that the division will focus on improving: accreditation, graduation, academics, teacher retention, equity, satisfaction, enrollment, attendance, restorative justice, and funding (RPS, 2018). Throughout the summer of 2019, RPS announced targets for each of these goals. With respect to Goal 6: Satisfaction, RPS intends to improve overall employee satisfaction by 5 percentage points annually over the next four years, totaling an increase of 20 percentage points (Hudacsko, 2019). This project works in alignment with Dreams4RPS Goal 6: Satisfaction and aims to help RPS achieve and exceed this annual goal. Ideally, improving satisfaction will assist in the process of reaching targets in other goals such as Goal 3: Academics and Goal 4: Teacher Retention. I will further describe these possible links in the literature review section.

Data and Methods

Defining teacher satisfaction:

RPS uses an index of eight questions to measure teacher satisfaction (Hudacsko, 2019). These questions are measured on a Likert scale with six points, ranging from strongly disagree (1) to strongly agree (6). The division considers teachers "satisfied" if they "agree" or "strongly agree" with at least 75% (6 out of 8) of the index questions (Hudacsko, 2019).

The teacher index includes the following questions:

- I feel respected by teachers and other adults at this school.
- Sufficient resources are available for professional development in my school.
- I feel respected by the school's administrators.
- I feel comfortable raising issues and concerns that are important to me with school administrators.
- I am treated with respect by students at this school.
- I feel safe at this school.
- Overall, my school is a good place to work and learn.
- Teachers are trusted to make sound professional decisions about instruction.

The questions in the index are drawn from the VDOE's Virginia Working Conditions Survey which the VDOE administered for the first time in 2019 (Hudacsko, 2019; VDOE 3, 2019). RPS used the raw data from this survey to arrive at the baseline teacher satisfaction level of 32% (Hudacsko, 2019). The VDOE estimates the survey had a 63% response rate for teachers, which is slightly above the state average of 62% (Hudacsko, 2019; VDOE 1, 2019).

RPS teacher satisfaction in context:

In addition to tracking teacher satisfaction, RPS also tracks staff, student, and parent/caregiver satisfaction (Hudacsko, 2019). Of all of these subgroups, teacher satisfaction remains the lowest. The 2018-19 overall staff, student, and parent/caregiver baselines were at 47%, 47%, and 75%, respectively (Hudacsko, 2019). However, it is important to note that each subgroup has different questions contained within their indices. As a result, direct comparison of these numbers is not fully possible.

There is limited availability of direct comparison data on teacher satisfaction with other school divisions. There are no historic data available because 2019 was the first year of survey administration. The VDOE survey results and raw data for other divisions are also not yet publicly available. However, the VDOE survey provides some comparison data which shows that RPS is below the state and regional averages across all measures that it assesses (VDOE 3, 2019). These results suggest that if the raw data were available for analysis, RPS would fall below the state index average.

2019-20 RPS Mid-Year Teacher Satisfaction Survey:

In January, 2020, RPS administered its Mid-Year Teacher Satisfaction Survey to gauge the division's progress on working towards its annual 5 percentage point increase. (Hudacsko, 2020). Using data from this survey, RPS found that teacher satisfaction had increased 9

percentage points to 41% (Hudacsko, 2020). This increase exceeded RPS's annual target of 5 percentage points (Hudacsko, 2020). Additionally, RPS was able to gather updated percentages of teachers who "agree" or "strongly agree" with each individual question, seen below in Table 1 (Hudacsko, 2020).

Table 1: Percent of teachers who "agree" or "strongly agree" with each question:

Question	Teachers
1. I feel respected by teachers and other adults at this school.	66%
2. Sufficient resources are available for professional development in my school.	43%
3. I feel respected by the school's administrators.	62%
4. I feel comfortable raising issues and concerns that are important to me with school administrators.	51%
5. I am treated with respect by students at this school.	56%
6. I feel safe at this school.	60%
7. Overall, my school is a good place to work and learn.	52%
8. (Teachers Only) Teachers are trusted to make sound professional decisions about instruction.	52%

Source: Hudacsko, 2020

Survey characteristics:

The survey was open for just over two weeks and solicited 1,365 responses from teachers, which is an estimated 74% response rate (Hudacsko, 2020). It is important to note that this survey had a few unique characteristics that made it different from the VDOE Virginia Working Conditions survey. First, this survey was limited to only the eight index questions, a free response box, a question on teacher plans for next year, and questions related to the RPS Talent Office (RPS, 2020). Second, the survey was administered to all RPS teachers, regardless of the location at which they were based, while the VDOE had only surveyed the 44 schools up for accreditation (VDOE 2, 2019). Finally, it is important to note that RPS did not employ weighting by school when calculating the index measure for either the 2018-19 or 2019-20 survey data.

Causes of low teacher satisfaction:

It is possible to theorize about the causes of low satisfaction rates in RPS using the available survey data. Individual satisfaction rates for each question in the index provide some context, but

there is no further explanation beyond what each question asks. For example, 43% of respondents "agreed" or "strongly agreed" with the statement "Sufficient resources are available for professional development in my school" (Hudacsko, 2020). Additionally, RPS is able to calculate satisfaction rates for each school, allowing the division to identify where satisfaction is particularly high or low. However, RPS is unable to determine what specifically makes teachers feel dissatisfied from the available data. As a result, further methodological inquiry is needed.

Methods for evaluating teacher satisfaction:

There are a number of methods that RPS can use to evaluate and improve teacher satisfaction, including quantitative, qualitative, and mixed methods approaches. In considering which is most suitable, I conducted a full review of these approaches and their limitations. This review is included in Appendix I. Given that RPS has already collected reliable quantitative data through the Mid-Year Teacher Satisfaction Survey, the division can use qualitative methods to further elucidate underlying reasons for low teacher satisfaction. This mixed methods approach follows an explanatory sequential design, in which quantitative data is used to guide qualitative inquiry (Creswell, 2015).

Using the survey data, I was able to identify the three lowest scoring areas that RPS can focus on to improve teacher satisfaction. These areas are contained within questions 2, 4 and 8 (Hudacsko, 2020). Each cover a specific domain, which I will term professional development, the role of school administrators, and teacher autonomy, respectively. I will now turn to the literature to see how each of these factors relates to teacher satisfaction, as well as glean best practices from previous studies.

Literature Review

This literature review will first discuss the factors that may influence teacher satisfaction. It will then highlight literature on the three domains of satisfaction identified as the lowest performing within RPS: the role of the school administrator, teacher autonomy, and professional development. It will conclude with a discussion of some of the overall features and limitations of the literature as it currently stands.

Factors influencing teacher satisfaction:

The current literature provides evidence that there are a number of factors that influence teacher satisfaction. The range of factors described in the literature is quite diverse, including, but not limited to, school climate (Aldridge & Fraser, 2014), administrative leadership style (Griffith, 2003), teacher self-efficacy and perceived autonomy (Skaalvik & Skaalvik, 2014), and emotional exhaustion (Skaalvik & Skaalvik, 2010). Skaalvik & Skaalvik (2009) explain that teacher satisfaction is difficult to define and measure due to teachers weighing these factors differently. However, categorizing these factors may help in better understanding much of the current research behind them.

Dinham & Scott's (1997) seminal work provides a framework that attempts to categorize these factors. The authors suggest that all factors influencing teacher satisfaction fall into three domains: universal intrinsic rewards of teaching, universal extrinsic dissatisfiers, and school-based factors (Dinham & Scott, 1997). Universal intrinsic rewards are factors which teachers find most satisfying, such as "self-growth and facilitating student achievement" (Dinham & Scott, 1997). Universal extrinsic dissatisfiers are factors that teachers inherently dislike, including "the status and image of teachers and imposed educational change" (Dinham & Scott, 1997). The final category of school-based factors includes the decision-making processes of school leaders and the inner workings of individual schools (Dinham & Scott, 1997). Current research suggests that school-based factors and the role of school leadership play a role in shaping teacher satisfaction.

Recent research on school-based factors:

Another term researchers use in the literature for school-based factors is "malleable school processes" (Viano, Pham, Henry, Kho, & Zimmer, 2019). These processes often influence whether or not teachers remain at the same school (Viano, et al., 2019). Viano, et al. (2019) found that among the highest rated traits are "enforcement of a student discipline policy followed by salary, administrator support, and school safety" (Viano, et al., 2019). While these findings have yet to be peer reviewed, they are the most recent evidence that builds on trends seen previously in the literature (Viano, et al., 2019). One important example of this is the role of the school administrator.

Teacher satisfaction and school administrators:

There is a documented relationship between school administrators and teacher satisfaction with respect to the support they provide and the type of leadership they display. For example, Boyd, et al. (2011) previously found similar trends in administrative support. In this study, the authors found that one of the main reasons teachers in New York City left their jobs was due to lack of

administrative support (Boyd, et al., 2011). The leadership style of the administrator can also play a role in teacher satisfaction. One specific type of leadership that many studies reference is transformational leadership. Bass & Avolio (1993) explain that transformational leaders have qualities such as the ability to influence, motivate, stimulate, and individually consider their employees. Griffith (2003) found that principals who exhibit these qualities can have a positive impact on teacher job satisfaction. This study also found that this type of leadership had a positive relationship with student achievement and teacher retention outcomes (Griffith, 2003). Dutta & Sahney (2015) found a similar trend, though the authors note that it appears the role transformational leadership plays is "indirect."

Teacher autonomy:

Teacher autonomy is defined as "a personal sense of freedom to execute the necessary actions and exert control over the school environment" (Usma Wilches, 2007). Autonomy can include a number of factors, such as having control over classroom management, classroom procedures, the physical classroom environment, and pedagogical decisions (Strong & Yoshida, 2014). Strong & Yoshida (2014) suggest teacher autonomy has changed in recent years due to additional "federal, state, and district procedures and accountability measures." They further suggest that administrators can continually assess and support greater autonomy for teachers (Strong & Yoshida, 2014).

Support for greater autonomy may be important because of evidence in the literature connecting it to components of teacher satisfaction. Skaalvik & Skaalvik (2014) found a positive correlation between teacher autonomy and job satisfaction. Additionally, the authors found that greater perceptions of teacher autonomy "negatively predicted emotional exhaustion" (Skaalvik & Skaalvik, 2014). Pearson & Moomaw (2005) conducted a correlational study of a random sample of teachers in three Florida school districts. The authors found a negative association between teacher autonomy and on-the-job stress (Pearson & Moomaw, 2005). However, they did not find an association between greater autonomy and job satisfaction (Pearson & Moomaw, 2005). It is thus important to note that evidence for teacher autonomy influencing teacher satisfaction is only correlational and results are currently mixed.

Teacher professional development:

There is literature to suggest that improving professional development for teachers may also improve teacher satisfaction. Evidence suggests that professional development may improve teacher self-efficacy, which Wheatley (2005) defines as "teachers' belief in their ability to influence valued student outcomes." Ross & Bruce (2007) conducted a randomized field trial of a mathematics PD and found that participating in the professional development treatment increased teacher self-efficacy in classroom management. Similarly, Gaudreau, Royer, Frenette, Beaumont, & Flanagan (2013) used a quasi-experimental approach to assess a positive classroom behavior management program. They found that participation in the treatment led to increased self-efficacy (Gaudreau, et al., 2013). Skaalvik & Skaalvik (2007) found that teacher self-efficacy has a strong negative correlation with teacher burnout, meaning that as self-efficacy tends to increase, teacher burnout tends to decrease. While the authors caution that this relationship is not causal, they assert that it "underscores the importance of teacher self-efficacy" (Skaalvik & Skaalvik, 2007). Improving teacher self-efficacy through professional development may thus have the ability to improve components of teacher satisfaction.

Barr, et al. (2015) provides further evidence that specific professional development interventions can improve teacher satisfaction. In this study, teachers who received the intervention saw significant improvements in their satisfaction on average (Barr, et al., 2015). This study is a randomized control trial (Barr, et al., 2015). It thus provides causal evidence that high quality professional development can improve teacher satisfaction. I will later return to this study when discussing potential alternatives for RPS to pursue.

Features of the teacher satisfaction literature:

After reviewing the literature on teacher satisfaction, it is important to two note two features of the available research. First, the majority of studies only find associations between teacher satisfaction and a number of outcomes such as teacher retention (Boyd, et al. 2011; Skaalvik & Skaalvik, 2011) and student achievement (Griffith, 2003). There is no causal evidence to show that improving teacher satisfaction leads to any direct outcome, suggesting that there are still gaps that researchers must fill. The second feature is there is no evidence to suggest that decreasing teacher satisfaction would have any beneficial outcome. With no evidence to the contrary, the literature indicates that RPS should intervene and work towards improving teacher satisfaction across the division.

Alternatives: Program Evaluation

In order to improve teacher satisfaction, RPS has two primary options. The first option is that RPS can conduct its own program evaluation that collects additional data aimed at identifying the root causes of low satisfaction. I have determined that there are three research designs that RPS can pursue, and will evaluate these methods based on the criteria of effectiveness of improving teacher satisfaction, cost of implementation, data quality, and the length of timeline for each alternative.

The second option recognizes that RPS may not have the capacity to conduct its own program evaluation. In the absence of clear data as to why teacher satisfaction is low within the division, RPS can use the literature to identify useful interventions and estimate the effects that these interventions will have. I will provide an example of how RPS can improve professional development and evaluate it using the same criteria listed above after making a program evaluation recommendation.

Alternative 1: Division analysts conduct one-on-one interviews with a random sampling of RPS teachers

The first research design will use qualitative interviews to engage teachers in conversation around issues of satisfaction. Interviews are generally used to form a better understanding of the interviewee's experience (Hesse-Biber, 2017). In this case, RPS will use interviews to help explain quantitative findings in the Mid-Year Teacher Satisfaction Survey.

Since survey data collection is already complete, an RPS data analyst will begin conducting interviews with a random sampling of teachers across the division. Randomly selecting teachers to participate in interviews will allow the interviewer to speak with teachers across a number of different schools in the division, providing a more holistic approach to data collection. RPS can choose to block the randomization by school to ensure that all schools are included in the sample. Each interview will last approximately one hour. The interview can take place at the teacher's school or central office based on the teacher's preference. The interviewer's questions will ask teachers to describe their positive and negative experiences with the three lowest scoring satisfaction domains. Based on the qualitative data collected through this process, the division will then be able to develop a plan to address teachers' needs in these areas.

One-on-one interviews are time-intensive. The timeline for completion of the interview process is thus heavily dependent on the number of interviews RPS would like to conduct, as well as the number of staff members RPS dedicates to conducting the interviews. Given that RPS currently has only one division administrator focused on improving teacher satisfaction, it is likely that the interview process of completing around 100 interviews will take approximately 4-6 months.

This approach models the Clampet-Lundquist, Edin, Kling, & Duncan (2011) study in which the authors used interviews in an attempt to explain unexpected findings in their quantitative data. Prior to conducting this study, researchers were able to quantitatively identify that there were gender differences in exhibiting riskier behavior amongst teenagers who moved to low-poverty neighborhoods as part of the Moving to Opportunity experiment (Clampet-Lundquist, et al.,

2011). However, researchers were unable to explain these differences until they collected qualitative data through interviews with these teenagers (Clampet-Lundquist, et al., 2011). Given that RPS currently is unable to explain its own quantitative findings around teacher satisfaction, this approach will likely fill this gap in a similar manner.

Alternative 2: Principals conduct school-based focus groups with teachers

The second research design that RPS can pursue uses focus groups to collect qualitative data from teachers. Researchers consider focus groups a more "economical" version of one-on-one interviews in that an interviewer has conversations with several participants at the same time (Hesse-Biber, 2017). However, they differ from traditional interviews in that the presence of multiple group members engaging in conversation can elicit new ideas and thoughts amongst participants (Hesse-Biber, 2017). In this case, principals will moderate focus groups at their own schools rather than have division administrators conduct them, allowing data collection at all 44 schools across the division.

Division administrators will train principals at a cluster meeting on how to conduct focus groups with their teachers, the protocol they will use for discussion, and how to collect and share the qualitative data they receive. In this case, questions and discussion will primarily revolve around the division's lowest scoring satisfaction domain. Within the following month, principals will then conduct their focus groups. Each focus group will last approximately one hour, and principals have flexibility to conduct them at the times most convenient for their teachers. Once principals conduct their focus groups, they will then summarize the key trends and share this data with the division administrator focused on improving satisfaction. This administrator will then analyze the data across schools to develop a plan to improve satisfaction around this domain. Overall, this process will take approximately 2-3 months.

The use of focus groups to collect qualitative data around teacher satisfaction is grounded in previous research (Rhodes, Nevill, & Allan, 2004). Having principals conduct their own focus groups provides the added benefit of showing teachers that their administrators care about and are willing to listen to their needs and concerns. As noted previously, there is evidence in the literature that administrative support may positively influence outcomes like teacher retention and student academic performance (Boyd, et al., 2011; Griffith, 2003). Additionally, showing administrative support is one of the domains covered in the satisfaction index, meaning that simply conducting the focus groups in this manner could assist with increasing satisfaction. It is important to note that using principals does raise the concern that teachers will not feel at liberty to openly share their feelings with their principal, particularly if their dissatisfaction stems from their principal's actions. However, the value in opening this line of communication may outweigh this concern in the RPS context.

Alternative 3: Use a case study model to identify factors leading to higher satisfaction

The third research design that RPS can implement is to limit its qualitative data collection to certain schools in the form of case studies. As Hesse-Biber (2017) explains, case studies are "a decision about what is to be studied." Rather than casting a wide net in an attempt to collect qualitative data from across the division, RPS will focus on specific schools in order to gain a deeper understanding of the factors that influence their current level of satisfaction. It will then

develop a plan to replicate effective practices or reduce the use of ineffective practices based on this data collection.

RPS will need to decide which types of schools it would like to study. One option is to focus on the schools that are predominantly high-scoring with respect to satisfaction. This approach, known as positive deviance, will focus exclusively on determining the practices that make these schools successful in an attempt to see what could be replicated elsewhere (Pascale, Sternin, & Sternin, 2010). Another option is to study schools that are the lowest scoring in teacher satisfaction in order to better understand the dynamics at play. A third option is to focus on schools that score in the middle of the satisfaction spectrum which is where the majority of schools fall, following methods that Booher-Jennings (2005) used.

Division administrators can use the mid-year survey data to select the schools it will study. Once RPS has made this decision, the division administrator focused on satisfaction will conduct one-on-one interviews with teachers. However, the protocol for these interviews will differ from that described in Alternative 1 because it will focus on all satisfaction domains, rather than one in particular. This holistic approach will allow for a clearer picture of the inner workings of satisfaction in the case study schools. Given that the division administrator will only focus on a select number of schools rather than needing to travel across the division, the timeline for the case study process will be approximately 1-2 months.

The use of case studies in the field of education is a well-established and highly effective method (Booher-Jennings, 2005; Scalan, 2010). RPS will benefit from using case studies in that it will allow the division to deeply study what is and is not working at specific schools with respect to satisfaction. A positive deviance model in particular will allow the division to learn from successes in satisfaction it is already creating at select schools.

Criteria

In order to evaluate the proposed alternatives, I will rate each one based on four criteria: effectiveness at improving teacher satisfaction, cost of implementation, data quality, and timeline. Each criterion will have its own rating system. I will weigh all four criteria equally in the evaluation process, as each is equally important to the needs of the client. The following descriptions will explain each criterion and provide an overview of their rating systems.

Criterion 1 – Effectiveness at improving teacher satisfaction:

The primary objective of Goal 6: Satisfaction in Dreams4RPS is to increase the level of teacher satisfaction across the division. As a result, one of the main criteria for evaluation is how effective the alternative will be at improving teacher satisfaction. This criterion will measure an increase in the percent of teachers who RPS considers "satisfied." Alternatives that generate higher levels of satisfaction are preferred to alternatives that generate lower levels.

For this criterion, I will provide a rank of the likelihood that each alternative will increase satisfaction across the division. This rank will be on a scale of high, medium, and low, and be based on two primary factors. First, I will assess the likelihood that RPS will be able to implement an actionable improvement plan based on the data collected. I will then consider the likelihood that RPS will be able to faithfully implement the alternative.

Criterion 2 – Cost of implementation:

The cost of implementing each alternative is important to consider in the RPS context because there is currently no budget dedicated to satisfaction improvement. While the division can allocate funding for satisfaction in future budgets, this will likely push back the timeline for alternative implementation. Cost will primarily be based on the number of staff hours needed for data collection. However, some alternatives may present options that draw from other budget streams. For example, I may need to consider the cost of providing additional professional development or hiring new staff. Given the limited budget, lower cost options are preferred to those of higher cost.

In order to calculate costs, I will take the hourly rate of each staff member and multiply it by the number of hours that the staff member will need to dedicate to the process. For other goods and services such as professional development or statistical software, I will use the market rate that RPS will likely have to pay. I will then sum these costs to provide an overall estimated cost of each alternative.

Criterion 3 – Data quality:

There are many ways to collect data, and some methods provide higher quality data than others. However, higher quality data may also come with a higher cost. This criterion will provide a clearer perspective on the quality of data that each alternative may produce allowing stakeholders to better evaluate the value of their investment. High quality data are preferred to those of low quality.

For this criterion, I will rate each alternative on a scale of low, medium, and high. I will consider a number of factors, including how teachers are selected for participation, how many teachers will participate in the process, who will be conducting the data collection, and where data collection will occur.

Criterion 4 – Timeline:

For each of the ten goals contained within Dreams4RPS, RPS has set annual quantitative benchmarks that it intends to reach that will mark progress towards attaining the overarching target. In the case of Goal 6: Satisfaction, RPS wants to increase teacher satisfaction by 5 percentage points annually (Hudacsko, 2019). Meeting these benchmarks will allow RPS to gradually reach its ultimate goal of increasing teacher satisfaction by 20 percentage points for the 2022-23 school year (Hudacsko, 2019). Given that the Richmond City School Board has approved these benchmarks and will hold the administration accountable to meeting them, it is important to consider how quickly each alternative will lead to improvements in teacher satisfaction.

This criterion will specify the length of time in months that each alternative will take to implement. In order to calculate the length of time for each alternative, I will consider the number of staff involved and how long the data collection process will take. Given the limited timeframe that RPS has, programs that RPS can implement in a shorter amount of time are preferred to those that take longer.

Findings: Program Evaluation

Program Evaluation Decision Matrix:

Criteria	Alternative 1: One-on-one interviews	Alternative 2: Principal-led focus groups	Alternative 3: Positive deviance case study
Effectiveness	High	Medium	Medium
Cost[1]	$13,335	$61,352	$3,506
Data Quality	High	Medium	Medium
Timeline	4-6 Months	2-3 Months	1-2 Months

Alternative 1: Division analysts conduct one-on-one interviews with a random sampling of RPS teachers

This alternative will allow RPS to collect data that will help it identify the root causes of low satisfaction across the three lowest scoring domains: professional development, comfortability raising concerns with administrators, and teacher autonomy. In collecting these data, RPS will have a high likelihood of being able to create an actionable plan to improve satisfaction. The cost of this alternative primarily stems from the time that both RPS administrators and teachers will need to put into the interviews. Assuming that RPS will dedicate one staff member to conducting 100 interviews with teachers, the cost of this alternative is approximately $13,355.

This alternative ranks highest with respect to data quality because it uses random sampling of all RPS teachers. Random sampling will allow the interviewer to speak with teachers from a variety of schools across the division. It is important to note that the sample size of 100 teachers still remains small and may not capture all perspectives. However, RPS will always have the option of expanding the interview sample size to gather a more representative sample if time and budget allow. Given that the interviews are one-on-one, the data collection timeline will be the longest of the alternatives. Assuming that each interview takes one hour and one staff member is able to conduct 10 interviews per week, this process will take between 2-3 months. Transcription, coding, and analysis of this data will also take an additional 2-3 months of time.

Alternative 2: Principals conduct school-based focus groups with teachers

Having principals conduct focus groups provides RPS with a way of incorporating feedback from teachers across the division. There is a medium likelihood that this will improve satisfaction because this practice will likely solicit useful data. However, there are some limitations to how representative it will be. An added benefit of this alternative is that teachers may perceive greater care and respect from principals, which may positively influence teacher satisfaction. The costs of implementing this alternative primarily stem from the time that principals, teachers, and division administrators will need to dedicate to the process of conducting focus groups. The total cost of this alternative is estimated at $61,352.

Conducting school-level all-staff focus groups allows RPS to reach all teachers. However, there are four primary concerns with conducting focus groups in this manner. First, evidence from the

[1] See Appendix II for specific cost calculations.

Mid-Year Teacher Satisfaction Survey suggests that teachers are reticent to openly share their concerns with administrators (Hudacsko, 2020). Having a principal lead a focus group staff meeting may stifle feedback as a result. Second, the quality of the focus group may differ at each school given the level of principal comfortability in implementing the process. The third concern is that some may feel uneasy or unwilling to share in a large group, particularly if the conversation does not generally reflect their own viewpoint or perspective. Finally, there will be no way for teachers to have their responses remain confidential from their school administrators unless RPS decides to have a central office staff member conduct the focus groups. While this is a potential option, it will likely increase both the cost and timeline. Using principals, the timeline of data collection is fairly short given that schools can simultaneously hold their focus group sessions. The entire training and interview process should take approximately 1-2 months, with an additional 1 month needed for data analysis.

Alternative 3: Use a positive deviance case study model to identify factors leading to higher satisfaction

This alternative will allow RPS to glean best practices from schools within the division that have high rates of teacher satisfaction. Identifying these practices has a medium likelihood of improving satisfaction, as these practices may be replicated elsewhere. However, there is no guarantee that this is the case. Given that RPS will focus exclusively on one or a small handful of schools, this alternative is the cheapest to implement. Costs primarily stem from the time needed to complete interviews with all teachers, observe the environment, and analyze the collected data. Using an elementary school that has high rates of teacher satisfaction as an example, I estimate that the costs of implementing this alternative total $3,506 per school.

The data collected as part of this case study will have high internal validity to the specific school. It will triangulate interviews with teachers, observations of classes, and assessment of the environment and culture, establishing a better understanding of the dynamics that influence high teacher satisfaction. However, these dynamics may be the result of school-specific features and have lower external validity when applied to other schools. As a result, this alternative has a medium rating for data quality. Given that an RPS staff member will be limiting focus and travel to schools, the timeline of implementing this type of evaluation will take approximately 1-2 months per school studied.

Recommendation: Program Evaluation

Based on the criteria of effectiveness, cost, data quality, and timeline, I recommend that RPS pursue Alternative 1: One-on-one interviews with teachers. This process has a high likelihood of collecting representative and useful data given that teachers from across the division were randomly selected. The one-on-one nature of the interviews with a staff member who is not based at their school will allow teachers to feel more comfortable responding to questions and provide more honest and direct feedback. While not the cheapest or quickest alternative, the cost is primarily derived from staff salaries and will be a worthwhile investment given the high quality of data that RPS will collect. RPS will also be able to keep the RPS School Board apprised of progress in data collection, lessening the concern for an accelerated timeline.

While allowing principals to conduct staff-wide focus groups via Alternative 2 will provide all teachers in the division with an opportunity to contribute, the cost of this commitment in terms of teacher and administrative hours is significant. Furthermore, the quality of individual focus groups, as well as the accuracy of the data collected, may be inconsistent across the division. Implementing Alternative 3 will help RPS understand the dynamics influencing high satisfaction across a select number of schools in the division in a quick and inexpensive way. However, in focusing exclusively on one or only a handful of schools, it is uncertain that the data gathered will be applicable to other schools in the division. Overall, the best option for RPS to pursue based on the selected criteria is Alternative 1.

Findings: Interventions from the Literature

Rather than dedicating time to the collection of its own data, RPS can use the literature to find interventions the division can implement to improve teacher satisfaction for each question in the satisfaction index. Given that only 43% of teachers are satisfied with the resources available for professional development, improving satisfaction around this question should be a primary area of focus (Hudacsko, 2020). Using evidence from Barr, et al. (2015), I will evaluate how implementation of a specific type of professional development may help improve satisfaction in this domain.

Effectiveness at improving teacher satisfaction:

The type of professional development provided in the Barr, et al. (2015) study had a large effect on teacher satisfaction. A baseline survey indicated that there was no statistically significant difference between the average treatment and control group response on a 1 (strongly disagree) to 5 (strongly agree) Likert scale (Barr, et al., 2015). After the intervention, the treatment group averaged a 4.25 while the control group only averaged a 3.61, meaning there was a .64 difference between the two groups (Barr, et al., 2015). To contextualize the magnitude of this change, the average response on the Likert scale went from a "neither agree or disagree" to an "agree." The large effect size indicates that this type of professional development is highly effective at improving teacher satisfaction in this domain. If RPS were to implement this type of professional development, the division may similarly see an increase in satisfaction.

Cost:

The cost of implementing a professional development intervention of this nature will depend heavily on the number of teachers that RPS trains. Costs primarily stem from teacher and administrative time commitment, providing professional development, and engaging in ongoing coaching support. Using a large, comprehensive high school with approximately 40 teachers that had low teacher satisfaction with respect to professional development as an example, I estimate that the cost of implementing this type of professional development program is $86,224 (see Appendix III).

Data quality:

The quality of the Barr, et al. (2015) study is high given that it is a randomized control trial. Schools in the study were randomly assigned to either receive the professional development intervention in the first year or receive the intervention in the second year of implementation (Barr, et al., 2015). This allowed the researchers to draw a causal link between the professional development and the observed increase in satisfaction in the experimental group (Barr, et al., 2015). As a randomized control trial, this study has a high level of internal validity, meaning that there is confidence that the results found in this study are accurate in this context (Bailey, 2016). However, randomized control trials have limited external validity, meaning that the results found in one context may not apply in another (Bailey, 2016).

Given the concern around external validity, it is important to consider if the RPS context is similar enough to the schools in the study. One notable similarity to RPS is that the majority of schools in the study were "high-poverty schools" (Barr, et al., 2015). Another important

consideration concerns the type of professional development intervention the study implemented. It is possible that the results may only be applicable to the content delivered within the Facing History and Ourselves program. However, it appears that the professional development used a set of best practices that are applicable across a variety of subject areas and grade levels, such as multi-day seminars and follow-up coaching (Barr, et al., 2015). If RPS is able to duplicate these best practices, the division may see similar results.

Timeline:

The Barr, et al. (2015) study suggests that at least a year of dedicated professional development and support is needed when implementing a new program. It is possible that continued follow-up and support over the second year of implementation may assist in implementing a program with "high fidelity" (Barr, et al., 2015). Thus, this alternative has an extended timeline, ranging from 12-24 months.

Recommendation: Interventions from the Literature

Given that professional development has the lowest rate of teacher satisfaction in RPS, using the literature to derive best practices in this domain is a sound option. While RPS should remain cautious given that this is a singular randomized control trial, the Barr, et al. (2015) study provides internally valid evidence suggesting that implementing this type of professional development will significantly improve teacher satisfaction. This study's findings also indicate that this type of professional development may have benefits outside of satisfaction, such as academic improvement for students (Barr, et al., 2015). Although the cost is high and full implementation of the program will take at least a year, the returns on investment are likely to be significant.

Implementation

Moving forward with implementing one-on-one interviews:

To move forward with implementation of one-on-one interviews, Chief of Staff Michelle Hudacsko should share the summarized findings with Superintendent Jason Kamras and seek his feedback and approval. They can then share the findings more broadly with other members of the leadership team to receive additional feedback. Once there is general agreement on this proposal, the division can follow the steps outlined below to begin conducting interviews.

Steps to implement one-on-one interviews with teachers:

In order to begin conducting one-on-one interviews with teachers, RPS needs to take the following steps:

1. RPS must designate a staff member who will oversee and conduct the one-on-one interviews across the division. The staff member should be familiar with qualitative methods and the process of conducting interviews. The designated staff member must develop a project plan, timeline for execution, and interview protocol. The interview protocol can be based on the data collected in the Mid-Year Teacher Satisfaction Survey, and focus primarily on professional development, raising concerns with administrators, and teacher autonomy. The designated staff member should also outline how the division will use the data collected to improve satisfaction.
2. RPS must agree upon which teachers are eligible for interviews, the type of sampling the division would like to use, and the process by which teachers are randomly selected. RPS can choose to follow the methods I have outlined or adjust based on division preferences.
3. Once the division has selected teachers, the designated staff member should draft a communication to teachers and administrators in the division outlining the process it will follow to complete these interviews. The staff member should then draft and send a communication to the selected teachers asking for their consent to participate in the process.
4. The designated staff member should begin scheduling interviews with teachers once the staff member receives consent. The interviewer should record each interview and transcribe it once it is complete, while also taking notes during the interview. The staff member should destroy all recordings after transcription.
5. Once data collection is complete, the designated staff member should create a summary memo highlighting general trends in the data and elevate this to the leadership team member responsible for satisfaction. There will be a need for further discussion on next steps at this time.

Stakeholder perspectives:

RPS must consider the following stakeholder perspectives when implementing the interview process:

Teachers: Given that teachers will be randomly selected for an interview and that their identity will not remain anonymous, there will be varying degrees of enthusiasm around participation. Some teachers may feel uncomfortable sharing their opinions with their employer, even if the interviewer does not work at their school. RPS should be transparent and communicate with

teachers the purpose behind the interviews. The division should also guarantee confidentiality and ensure that principals are not made aware of what individual teachers have shared.

Principals and other school-based administrators: Principals and other school-based administrators may be concerned that randomly selecting teachers may only provide a limited view of dynamics within a school building. It is important to make principals aware that the process is taking place across division and is aimed at improving teacher satisfaction at all school sites. Furthermore, RPS needs to be transparent and ensure that the division will not take the interview content into account when completing principal evaluations. Rather, RPS will only use the data to determine areas for growth across the division and find best practices to improve them.

RPS School Board members: The RPS administration should provide the RPS School Board with an update regarding why the division has opted to interview teachers, steps the division is taking to implement the process, and a general timeline of when to expect results. While school board members will likely be supportive, they will seek assurance that all schools are represented in the sample. RPS should also explain that it will share all major findings in a presentation once the interview process is complete.

Students and families: In addition to teacher satisfaction, Goal 6: Satisfaction within Dreams4RPS also seeks to improve student and family satisfaction. RPS should communicate with students and families how the teacher interview process will work to improve school climate, teacher retention, and student academic performance. RPS should also consider the possibility of holding interviews with students and families to collect actionable data from these groups.

Other risks and considerations:

COVID-19: RPS is currently not in session due to the outbreak of COVID-19. Students and teachers will not return this school year. As a result, RPS should consider delaying the interview process until the fall. If RPS chooses to do so, it should wait until October to begin the interview process in order to allow teachers to adjust to the new school year.

Consulting the literature: Since the interview process will likely be delayed, RPS can use this opportunity to consult the literature for potential alternatives for increasing teacher satisfaction. Given that there will likely be additional time for administrators to engage in this type of planning, RPS should use the model I outlined around professional development and see what literature exists for other aspects of satisfaction.

Appendix I: Methods Literature Review

Use of surveys in the literature:

The primary quantitative method used to assess statistical trends in teacher satisfaction is the use of surveys. Surveys are a tool that researchers use "to collect data representative of a population" in order to "generalize findings… back to a population" (Bartlett, Koltrik, & Higgins, 2001). Many studies have effectively implemented the use of surveys to gauge job satisfaction (Barling, Kelloway, & Iverson, 2003). Researchers have also used surveys to gauge teacher satisfaction (Ostroff, 1992; Dinham & Scott, 1997; Griffith, 2003; Skaalvik & Skaalvik, 2014). Both the VDOE and the Virginia Department of Criminal Justice Services (VDCJS) use surveys to gauge school climate and working conditions throughout the state (VDOE 3, 2019; VDCJS, 2019). The 2019 VDOE School Climate and Working Conditions Survey provided RPS with the data to create an index of questions related to teacher satisfaction (Hudacsko, 2019). Surveys can thus play an integral role in assessing teacher satisfaction.

Limitations of surveys:

It is important to note that the use of surveys to collect quantitative data is not without limitations. First, it is rare for surveys to have a 100% response rate (Bartlett, et al., 2001). In order to maintain high standards when performing research, it is critical that a survey have an adequate sample size and a sample that is representative of the population of interest (Bartlett, et al., 2001). Sampling issues were present in the 2019 VDOE School Climate and Working Conditions survey, as some schools in RPS did not have adequate representation in the data (VDOE 2, 2019). Another issue with surveys, and quantitative methods more generally, is that they can leave researchers without an understanding of why trends exist. For example, Clampet-Lundquist, et al. (2011) found that teenage boys who were moved to low-poverty neighborhoods as part of the Moving to Opportunity (MTO) experiment continued to exhibit riskier behavior in ways that teenage girls did not. From the quantitative data alone, it would be difficult for researchers to generate hypotheses as to why this was the case. In order to close a gap like this, researchers often turn to the use of qualitative methods.

Use of qualitative methods in the literature:

Qualitative research attempts to bring "meaning" through the asking of questions such as "how, why, or what" to better understand the social world (Hesse-Biber, 2017). Three primary qualitative methods relevant to teacher satisfaction are interviews, focus groups, and case studies (Hesse-Biber, 2017). Interviews lead researchers to have conversations with participants that allow for a deeper understanding of the participant's experience and perspective (Hesse-Biber, 2017). Researchers have studied the experience of teachers through interviews in a number of settings. For example, Booher-Jennings (2005) interviewed teachers and administrators to better understand decisions teachers were making around "triaging" students when preparing them for state tests. These interviews allowed her to uncover and bring meaning to a practice that was previously not well understood (Booher-Jennings, 2005). Focus groups are similar to interviews in that they allow researchers to have conversations with participants around their experiences. However, they are much more "economical" in that many participants contribute to the conversation at the same time (Hesse-Biber, 2017). Researchers have previously used focus groups in order to "collect data concerning facets likely to lead to teacher satisfaction or

dissatisfaction in schools" (Rhodes, Nevill, & Allan, 2004). Interviewing teachers individually or in focus groups could thus provide deeper insight into why their satisfaction levels are the way they are.

A number of studies in education have also made use of the case study approach. Hesse-Biber (2017) argues that case studies are not necessarily a method, but rather "a decision about what is to be studied." Case studies in education frequently hone in exclusively on one or a subset of schools in order to better describe trends in that specific school. Booher-Jennings (2005) focused exclusively on one school when looking at teacher's triaging of students in order to more deeply understand the dynamic. Similarly, Scalan (2010) wrote a case study of an urban Catholic school in order to demonstrate how the school succeeds in implementing social justice education. If used in the context of teacher satisfaction, this approach could highlight schools that have high or low rates of satisfaction and provide a deeper look into the inner workings of teacher satisfaction at specific schools.

Limitations of qualitative methods:

Like quantitative methods, qualitative methods are not without limitations. One limitation of interviews is that they are time intensive. Booher-Jennings (2005) explains that she spent an average of 45 minutes speaking to each teacher. The length of interviews and resources needed to complete them often means that qualitative analyses rely on small sample sizes. While Marshall (1996) argues that small sample sizes are sometimes appropriate so long as the sample size "adequately answers the research question," it is important to recognize that the experiences captured may not necessarily represent those of the larger population. As a result of these limitations, some researchers attempt to balance the use of qualitative and quantitative methods through the mixed methods approach.

Use of mixed methods in the literature:

The mixed methods approach collects both quantitative and qualitative data in ways that complement each other, allowing for "interpretations based on the combined strengths of both sets of data" (Creswell, 2015). There are three basic designs in mixed methods: convergent, explanatory sequential, and exploratory sequential (Creswell, 2015). Each differs based on the order and purpose of data collection. Under the convergent design, quantitative and qualitative data are collected at the same time and later merged for the purpose of analysis (Creswell, 2015). The explanatory sequential design begins with collection of quantitative data and uses qualitative data to further explore specific aspects of the data (Creswell, 2015). The Clampet-Lundquist, et al. (2011) study refenced above exemplifies this approach in that it used qualitative methods to further investigate an anomalous quantitative finding. The third basic design is the exploratory sequential design, which uses qualitative data to determine what quantitative data researchers should collect (Creswell, 2015). While using a mixed methods approach attempts to mitigate the drawbacks of using only quantitative or qualitative methods, the limitation described above still apply. Given that quantitative data is already available for RPS from the Mid-Year Teacher Satisfaction Survey, the explanatory sequential design would be the most appropriate option to pursue if one wished to pursue a mixed methods approach.

Appendix II: Program Evaluation Alternatives

Program Evaluation Alternative Cost Summary:

Alternative	Administrative Salary	Teacher Salary	Principal Salary	Total
Alternative 1: One-on-one interviews	$9,590	$3,745	$0	$13,355
Alternative 2: Principal-led focus groups	$384	$56,175	$4,793	$61,352
Alternative 3: Positive deviance case study	$2,532	$974	$0	$3,506

Cost Calculations[2]:

Alternative 1 Calculation: 38.36*100 + 37.45*100 (Interview Time) + 38.36*150 (Transcription and Analysis Time) = $13,335

Alternative 2 Calculation: 54.47*44 + 1500*37.45 (Focus Group Time) = $58,571 + 54.47*44 (Training Time) + 38.36*10 (Data Analysis) = $61,352

Alternative 3 Calculation: 38.36*26 + 37.45*26 (Interview Time) + 38.36*20 (Observation Time) + 38.26*20 (Data Analysis) = $3,506

[2] All salary rates are derived from RPS Salary Schedules 2019-2020 School Year (RPS 3, 2019).

Appendix III: Professional Development Alternative

Professional Development Cost Summary:

Literature Alternative	Administrative Salary	Teacher Salary	Principal Salary	Professional Development	Total
Professional Development	$1,573	$61,418	$2,233	$21,000	$86,224

Cost Calculations:

Professional Development: 37.45*41*40 (Teacher seminar / follow-up coaching hours) + 54.47*41 (Principal seminar / follow-up coaching hours) + 38.36*41 (Administrator seminar / follow-up coaching hours) + 500[3]*42 (Cost of Professional Development) = $86,224

[3] Cost of professional development derived from costs on the Facing History and Ourselves website (Upcoming Professional Development, 2020).

Appendix IV: Hourly Rates

Hourly Rates by Position Type:

Administrator Hourly Rate: Hourly rate ($38.36) is calculated by dividing Step 18 on the RPS administrator salary scale ($79,795) by the number of contracted days (260) and the number of hours worked per day (8).

Principal Hourly Rate: Hourly rate ($54.47) is calculated by dividing Step 18 on the RPS principal salary scale ($113,303) by the number of contracted days (260) and the number of hours worked per day (8).

Teacher Hourly Rate: Hourly rate ($37.45) is calculated by dividing Step 22 on the RPS salary scale for teachers with a BA ($59,927) by the number of contracted days (200) and the number of hours worked per day (8).

References

Aldridge, J. M., & Fraser, B. J. (2016). Teachers' views of their school climate and its relationship with teacher self-efficacy and job satisfaction. *Learning Environments Research, 19*, 291-307.

Bailey, M. A. (2016). *Real Stats: Using Econometrics for Political Science and Public Policy.* New York: Oxford University Press.

Barling, J., Kelloway, E. K., & Iverson, R. D. (2003). High-Quality Work, Job Satisfaction, and Occupational Injuries. *Journal of Applied Psychology, 88*(2), 276-283.

Barr, D. J., Boulay, B., Selman, R. L., McCormick, R., Lowenstein, E., Gamse, B., Leonard, M. B. (2015). A Randomized Controlled Trial of Professional Development for Interdisciplinary Civic Education: Impacts on Humanities Teachers and Their Students. *Teachers College Record, 117*(020307), 1-52.

Bartlett, J. E., Kotrlik, J. W., & Higgins, C. C. (2001). Organizational Research: Determining Appropriate Sample Size in Survey Research. *Information Technology, Learning, and Performance Journal, 19*(1), 43-50.

Bass, B. M., & Avolio, B. J. (1993). Transformational Leadership and Organizational Culture. *Public Administration Quarterly, 17*(1), 112-121.

Booher-Jennings, J. (2005). Below the Bubble: "Educational Triage" and the Texas Accountability System. *American Educational Research Journal, 42*(2), 231-268.

Boyd, D., Grossman, P., Ing, M., Lankford, H., Loeb, S., & Wyckoff, J. (2011). The Influence of School Administrators on Teacher Retention Decisions. *American Educational Research Journal, 48*(2), 303-333.

Clampet-Lundquist, S., Edin, K., Kling, J. R., & Duncan, G. J. (2011). Moving Teenagers Out of High-Risk Neighborhoods: How Girls Fare Better than Boys. *American Journal of Sociology, 116*(4), 1154-1189.

Creswell, J. (2015). *A Concise Introduction to Mixed Methods Research.* Thousand Oaks, CA: SAGE Publications, Inc.

Dinham, S., & Scott, C. (1997). A three domain model of teacher and school executive career satisfaction. *Journal of Education Administration, 36*(4), 362-378.

Dutta, V., & Sahney, S. (2016). School leadership and its impact on student achievement. *International Journal of Educational Management, 30*(6), 941-958.

Facing History and Ourselves. (2020, March 22). *Upcoming Professional Development*. Retrieved from Facing History and Ourselves: https://www.facinghistory.org/upcoming-professional-development

Gaudreau, N., Royer, E., Frenette, E., Beaumont, C., & Flanagan, T. (2013). Classroom Behaviour Management: The effects of in-service training on elementary teachers' self-efficacy beliefs. *McGill Journal of Education, 48*(2), 359-382.

Griffith, J. (2004). Relation of principal transformational leadership to school staff job satisfaction, staff turnover, and school performance. *Journal of Educational Administration, 42*(3), 333-356.

Hesse-Biber, S. N. (2017). *The Practice of Qualitative Research.* Thousand Oaks, CA: SAGE Publications, Inc.

Hudacsko, M. (2019). *Dreams4RPS Goal Setting - Satisfaction and Retention for 7-15-19 Board Meeting.* Richmond, VA: Richmond Public Schools.

Hudacsko, M. (2020). *Dreams4RPS Goal 6 - Satisfaction: Update for the Richmond City School Board.* Richmond, VA.

Marshall, M. N. (1996). Sampling for qualitative research. *Family Practice, 13*(6), 522-525.

Ostroff, C. (1992). The Relationship Between Satisfaction, Attitudes, and Performance: An Organizational Level Analysis. *Journal of Applied Psychology, 77*(6), 963-974.

Pascale, R., Sternin, J., & Sternin, M. (2010). *The Power of Positive Deviance: How Unlikely Innovators Solve the World's Toughest Problems.* Boston, MA: Harvard Business Press.

Pearson, L., & Moomaw, W. (2005). The Relationship between Teacher Autonomy and Stress, Work Satisfaction, Empowerment, and Professinalism. *Educational Research Quarterly, 29*(1), 38-54.

Rhodes, C., Nevill, A., & Allan, J. (2004). Valuing and supporting teachers. *Research in Education, 71*, 67-80.

Richmond Public Schools. (2018). *Dreams4RPS: The 2018-23 RPS Strategic Plan.* Richmond, VA.

Richmond Public Schools. (2019, 09 04). *About RPS*. Retrieved from https://www.rvaschools.net/about-rps

Richmond Public Schools. (2019). *Richmond Public Schools Schol Board Adopted Budget FY2019-20.* Richmond, VA.

Richmond Public Schools. (2019). *Salary Schedules 2019 - 2020 School Year.* Richmond, VA.

Richmond Public Schools. (2020). *RPS Mid-Year Teacher Satisfaction Survey.* Richmond, VA .

Ross, J., & Bruce, C. (2007). Professional Development Effects on Teacher Efficacy: Results of Randomized Field Trial. *The Journal of Educational Research, 101*(1), 50-60.

Scalan, M. (2010). Slogging and Stumbling Toward Social Justice in a Private Elementary School: The Complicated Case of St. Malachy. *Education and Urban Society, 42*(5), 572-598.

Skaalvik, E. M., & Skaalvik, S. (2007). Dimensions of Teacher Self-Efficacy and Relations With Strain Factors, Perceived Collective Teacher Efficacy, and Teacher Burnout. *Journal of Educational Psychology, 99*(3), 611-625.

Skaalvik, E. M., & Skaalvik, S. (2009). Does school context matter? Relations with teacher burnout and job satisfaction. *Teaching and Teacher Education, 25*, 518-524.

Skaalvik, E. M., & Skaalvik, S. (2010). Teacher job satisfaction and motivation to leave the teaching profession: Relations with school context, feeling of belonging, and emotional exhaustion. *Teaching and Teacher Education, 27*(6), 1029-1038.

Skaalvik, E. M., & Skaalvik, S. (2014). Teacher Self-Efficacy and Perceived Autonomy: Relations with Teacher Engagement, Job Satisfaction, and Emotional Exhaustion. *Psychological Reports: Employment Psychology & Marketing, 114*(1), 68-77.

Strong, L. E., & Yoshida, R. K. (2014). Teachers' Autonomy in Today's Educational Climate: Current Perceptions From an Acceptable Instrument. *Educational Studies, 50*(2), 123-145.

Usma Wilches, J. (2007). Teacher Autonomy: A Critical Review of the Research Concept beyond Applies Linguistics. *Ikala, revista de lenguaje y cultura, 12*(18), 245-275.

Viano, S., Pham, L., Henry, G., Kho, A., & Zimmer, R. (2019). Push or Pull: School-Level Factors That Influence Teacher Mobility in Turnaround Schools. *TN Education Research Alliance* .

Virginia Department of Criminal Justice Services. (2019). *2019 Virginia School Climate Survey Division Report Grades 6 through 8 Richmond City Public Schools.* Richmond, VA: Virginia Department of Criminal Justice Services.

Virginia Department of Education. (2019). *Division123 Survey Results*. Richmond, VA: Virginia Department of Education.

Virginia Department of Education. (2019). 2019 Virginia Working Conditions and School Climate Surveys Raw Data.

Virginia Department of Education. (2019). *2019 Virginia Working Conditions Survey Teacher Version Richmond City.* Richmond, VA: Virginia Department of Education.

Virginia Department of Education. (2020, April 14). *Richmond City Public Schools*. Retrieved from School Quality Profiles: https://schoolquality.virginia.gov/divisions/richmond-city-public-schools#desktopTabs-3

Virginia Department of Education. (2020, May 01). *Data Definitions (Revised 6/24/2009)*. Retrieved from Virginia Department of Education: http://www.doe.virginia.gov/info_management/data_collection/student_record_collection/data_definitions.shtml#disadvantaged

Wheatley, K. F. (2005). The case for reconceptualizing teacher efficacy research. *Teaching and Teacher Education, 21*, 747-766.