Spring 1-1-2011

Transformative Professional Development and Teacher Engagement

Kimberly E. Geil
University of Colorado at Boulder, kakigori4@gmail.com

Follow this and additional works at: https://scholar.colorado.edu/educ_gradetds

Part of the Teacher Education and Professional Development Commons

Recommended Citation
https://scholar.colorado.edu/educ_gradetds/8

This Dissertation is brought to you for free and open access by School of Education at CU Scholar. It has been accepted for inclusion in School of Education Graduate Theses & Dissertations by an authorized administrator of CU Scholar. For more information, please contact cuscholaradmin@colorado.edu.
TRANSFORMATIVE PROFESSIONAL DEVELOPMENT AND
TEACHER ENGAGEMENT

by

KIMBERLY E. GEIL

B.A., Stanford University, 1991

A thesis submitted to the
Faculty of the Graduate School of the
University of Colorado in partial fulfillment
of the requirement for the degree of
Doctor of Philosophy
School of Education
2011
This thesis entitled:
Transformative Professional Development and Teacher Engagement
written by Kimberly E. Geil
has been approved for the School of Education

________________________
Derek C. Briggs, Chair

________________________
Hilda Borko

________________________
Benjamin Kirshner

________________________
Daniel Liston

________________________
Karen Tracy

________________________
Jennifer Whitcomb

April 5, 2011

The final copy of this thesis has been examined by the signatories, and we
find that both the content and the form meet acceptable presentation standards
of scholarly work in the above mentioned discipline.

HRC protocol # 0506.20
ABSTRACT

Geil, Kimberly E. (Ph.D., Education)
Transformative Professional Development and Teacher Engagement
Thesis directed by Professor Derek C. Briggs

This quasi-experimental study attempts to estimate the effect that participation in Courage to Teach (CTT), a transformative professional development (TPD) program, has on subsequent engagement with teaching. The primary focus of a TPD program is on the person who teaches, as opposed to content or technique. The subjects of the study are a sample of alumni from CTT and the National Writing Project (NWP), a professional development program used as a control group. Demographic data were collected for descriptive purposes and to account for potentially confounding variables. Engagement was measured with the Maslach Burnout Inventory (MBI), and survey data were also collected on issues related to retention and perceived benefits of participation. Propensity score matching techniques were used to match the PK-12 teachers from the two programs as closely as possible on the potentially confounding variables.

On average, the CTT respondents reported higher levels of professional efficacy (indicating greater engagement), and higher levels of emotional exhaustion and cynicism (indicating lesser engagement) than the NWP respondents. The CTT respondents were also compared to the normative sample of the MBI and other contemporary studies, and consistently showed higher engagement on all three subscales. Descriptive and exploratory data were obtained regarding respondents’ demographic characteristics (CTT respondents are older and more experienced), the perceived effects of the program on respondents’ retention decisions (a
larger percentage of CTT respondents appear to be questioning their career choice at the time of their participation than NWP respondents), and the most valuable aspects of the program (CTT respondents focus more on personal and professional benefits, while NWP respondents focus primarily on professional aspects). Future research is needed to explore aspects of professional development that promote engagement, whether or not a content focus is a necessary requirement, and to resolve some of the issues that arose around proxy variables and temporal precedence.
ACKNOWLEDGMENTS

There are many people to whom I owe a great deal of thanks. To start off, I would like to thank my committee for allowing me to do things in my own way and on my own terms…that made all the difference. Hilda Borko was my first advisor and the Research on Teaching seminar I took from her was a wonderful introduction to graduate school. Jennie Whitcomb made me feel very welcome when I arrived at the School of Education, especially when we realized that we had previously taken a class together at Stanford. Karen Tracy’s communication courses were always engaging and challenging, and it was a project for her class that led to an article co-written with Ben Kirshner, whose mentoring in that area is very much appreciated. Dan Liston introduced me to the Courage to Teach program that became the focus of my dissertation, offered meaningful classroom experiences, and later joined Hilda as one of my two original co-chairs. Dan and Hilda shepherded me through the initial stages of the project, helped me figure out conceptually what it was I wanted to do, then turned the reins over to Derek Briggs when it became clear that my interests had taken me in a more statistical direction.

It is no understatement to say that I would still be plodding along, perhaps never reaching the finish line, if not for Derek. From pushing me to get my prospectus done in 2007, to having just the right words of encouragement as the defense date approached, he was always available when I needed him. I think it is fair to say that he is the perfect example of the philosophy that underlies my study…that while content and technique in teaching are absolutely necessary, the relationship between teacher and student can make the biggest difference of all. My dissertation is a much stronger product thanks to his guidance and knowledge regarding statistics, but ultimately it was his belief that I was capable of finishing that saw me through.
I also have to thank my “R guru,” Ben Domingue. He spent many hours talking with me on the phone, exchanging e-mails, and helping me understand the intricacies of the R programming environment and MatchIt software that was critical to the propensity score matching techniques I used. I would not have been able to finish without his help.

Terry Chadsey, now the Director of the Center for Courage and Renewal, was invaluable in helping me get in touch with Courage to Teach facilitators and supporting my efforts. Dan Liston and Paul Michalec graciously allowed me access to their Courage to Teach alumni for the purposes of running a pilot test. Several people were very helpful at the National Writing Project, particularly Paul LeMahieu, who provided access to the NWP sample and pushed my thinking in many ways, and Linda Friedrich, who provided insightful editorial comments. Rich Argys, Michelle Comstock, and Nicole Piasecki welcomed me into the Denver Writing Project, let me attend workshops, and facilitated a pilot test with their alumni.

The Fetzer Institute in Kalamazoo, Michigan made the first Courage to Teach retreat series possible in 1994. Later they sponsored a request for proposals for research on transformative professional development. Thanks to Dan Liston’s leadership, several CU-Boulder projects were partially funded, mine included, and I am very grateful for this support.

The CTT and NWP alumni who took time out of their busy lives to complete my survey are the heart and soul of this research project. Many of them wrote fascinating and revealing accounts of their experiences with the programs, and I am indebted to them for sharing their thoughts and feelings.

Many of my classmates supported me at various times throughout this process. Danielle Harlow offered essential critiques of my prospectus that made it possible for me to meet a deadline that otherwise felt unattainable, and she and Laura Creighton were both friendly faces at
my prospectus defense. Sue Arnold came to my dissertation defense, and she and her partner Deb provided a welcome place to stay in the “yellow room” and a sympathetic ear to whatever was going on in my life, be it grad school related or not. Bud Talbot, my office mate for many years, also gave generously of his time and expertise to help me understand statistical concepts.

Patty McDonald and Sara McDonald both made me continue to feel welcome at the School of Education even after I moved to California. Sara’s help was invaluable in scheduling my dissertation defense, and Patty was always available to answer questions related to my own work or other research grants over the years. Michelle Albright was accessible and friendly whenever I had another question about dissertation deadlines, and I am indebted to her for helping me get that final paperwork to the Graduate School on time.

Of course, I would not be where I am or who I am today without my parents, Phil and Louise Geil. They always supported and encouraged me in my choices, from spending a summer in Japan on an exchange program when I was sixteen, to going away to college, to living abroad in Japan, to taking me in again when I came back to the States and began teaching Japanese, to doting on their “granddog” Tucker, to welcoming Suna into the family. My siblings, Julie Carson, Kristin Ham, and Jeffrey Geil have also been an important part of my life and even though we are all scattered across the country now, I know we will always be close.

And that brings me to my partner, Suna Kneisley, who even though she came in on the tail end of this journey was there during the most intense parts…the days when I worked nonstop on the dissertation and did not do much else. She made sure there was always food in the fridge, helped me create graphics and figure out how to import them into the dissertation, listened to me when I was sure I would not finish, and most importantly, made me feel loved. Here’s to many post-dissertation years!
# TABLE OF CONTENTS

LIST OF TABLES .......................................................................................................................... XII

LIST OF FIGURES ........................................................................................................................ XIII

CHAPTER 1. RESEARCH PROBLEM AND SIGNIFICANCE OF STUDY ............................................. 1

  INTRODUCTION TO THE RESEARCH PROBLEM .................................................................. 1
    The Person Who Teaches ........................................................................................................ 2

  RESEARCH QUESTIONS ......................................................................................................... 5

  SIGNIFICANCE OF THE STUDY ............................................................................................ 7
    Engagement and Burnout ........................................................................................................ 7
    The Importance of Engaged Teachers ...................................................................................... 9
    The Costs Associated with Low Engagement and Burnout .................................................... 11
    The Costs Associated with Movers and Leavers .................................................................. 13

  POSSIBLE WAYS TO PROMOTE ENGAGEMENT AND REDUCE ATTRITION ......................... 14
    The Potential of Transformative Professional Development ............................................... 16

  SUMMARY AND STRUCTURE OF REMAINING CHAPTERS ................................................... 16

CHAPTER 2. LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK ......................................... 19

  TRANSFORMATIVE PROFESSIONAL DEVELOPMENT AND COURAGE TO TEACH .............. 19
    The History, Structure, and Mission of Courage to Teach .................................................. 21
    Courage to Teach and the Elements of Effective Professional Development ........................ 24

  EXISTING RESEARCH AND EVALUATIONS ON THE COURAGE TO TEACH PROGRAM ........... 28
    Findings of Existing Courage to Teach Research Studies .................................................... 31

  POTENTIALLY CONFounding AND DESCRIPTIVE VARIABLES .......................................... 34
    Demographic Characteristics of Teachers ............................................................................ 36
      Age, Teaching Experience, and Retirement Eligibility ........................................................ 37
      Gender and Race/Ethnicity .................................................................................................... 38
      Teaching Certification and Full Time Status ........................................................................ 40
      Satisfaction With Salary ...................................................................................................... 41
    School and Student Characteristics ..................................................................................... 41
      Grade Level Taught .............................................................................................................. 43
      School Locale, Size, and Public/Private Sector ................................................................... 44
      Free and Reduced Lunch Eligibility .................................................................................... 45
      Racial Distribution of Students .......................................................................................... 46

  SUMMARY OF CHAPTER ......................................................................................................... 47

CHAPTER 3. STUDY DESIGN AND DATA COLLECTION .................................................................. 48

  STUDY DESIGN ...................................................................................................................... 48
    Appropriate Control Group and the Counterfactual .............................................................. 50
    The History, Mission, and Structure of the National Writing Project .................................. 52
    Existing Research on the National Writing Project .............................................................. 54

  SAMPLE SELECTION ............................................................................................................... 57
    Response Rates ..................................................................................................................... 62

  SURVEY INSTRUMENT ........................................................................................................... 64
    The Maslach Burnout Inventory ............................................................................................ 64
      Reliability of the MBI .......................................................................................................... 66
      Validity of the MBI .............................................................................................................. 68
      Normative Sample of the MBI ............................................................................................ 71
    National Center for Education Statistics’ School and Staffing Surveys ............................... 71
    Researcher-Created Items .................................................................................................... 72

  PILOT TEST ............................................................................................................................. 72

  CONFIDENTIALITY OF DATA ................................................................................................. 73

  SURVEY DATA LIMITATIONS ................................................................................................. 73
Response Rates and Representativeness.................................................................................. 73
FOCUS OF ANALYSIS ON PK-12 TEACHERS......................................................................... 74
SUMMARY OF CHAPTER........................................................................................................ 75

CHAPTER 4. CHARACTERISTICS OF RESPONDENTS .................................................................. 76

DEMOGRAPHICS ..................................................................................................................... 76
Gender and Race/Ethnicity ....................................................................................................... 78
Age, Teaching Experience, and Retirement Eligibility .............................................................. 79
Certification and Full Time Status .......................................................................................... 82
Satisfaction With Salary ........................................................................................................ 83
SCHOOL AND STUDENT CHARACTERISTICS ..................................................................... 84
School Level Taught ................................................................................................................ 85
Size of School ........................................................................................................................ 86
Location of School ................................................................................................................ 87
Public or Private Sector .......................................................................................................... 88
Percentages of Non-White Students and Students on Free or Reduced Lunch ..................... 88
CHARACTERISTICS OF THE PROFESSIONAL DEVELOPMENT PROGRAMS .................. 90
SUMMARY OF CHAPTER........................................................................................................ 91

CHAPTER 5. EFFECTS OF PARTICIPATION IN COURAGE TO TEACH ON TEACHER ENGAGEMENT AND PERCEIVED BENEFITS ....................................................... 93

PROPENSITY SCORE MATCHING ............................................................................................ 94
Covariate Selection ................................................................................................................ 94
Proxy Variables ...................................................................................................................... 96
Level of Involvement ............................................................................................................. 97
Balance Before Matching .................................................................................................... 97
Propensity Scores and Selection of Matched Cases .............................................................. 100
Subclasses and Balance After Matching ........................................................................... 103
WHAT IS THE EFFECT OF PARTICIPATION IN COURAGE TO TEACH ON SUBSEQUENT TEACHER ENGAGEMENT? ......................................................... 107
Comparisons Before Propensity Score Matching ............................................................... 107
Comparisons After Propensity Score Matching .................................................................. 108
Subclass Interactions ........................................................................................................... 110
Courage to Teach and the Normative Sample of the MBI .................................................. 113
Courage to Teach and Other Studies of Teachers and the MBI .......................................... 114
Discussion ........................................................................................................................... 118
WHAT IS THE EFFECT OF PARTICIPATION IN COURAGE TO TEACH ON PERCEIVED BENEFITS OF THE PROFESSIONAL DEVELOPMENT PROGRAM? ........................................................ 120
Comparisons Before Propensity Score Matching ............................................................... 121
Comparisons After Propensity Score Matching .................................................................. 122
Discussion ........................................................................................................................... 124
SUMMARY OF CHAPTER........................................................................................................ 125

CHAPTER 6. EXPLORATORY DATA REGARDING RETENTION .................................................... 126

NO LONGER TEACHING ......................................................................................................... 127
INTENTIONS TO REMAIN IN TEACHING .......................................................................... 128
PERCEIVED EFFECTS OF PROFESSIONAL DEVELOPMENT PROGRAM ON RETENTION DECISIONS ........................................................................... 131
How Open-Ended Responses Were Coded ........................................................................ 131
Perceived Effects on Decisions to Remain in or Leave Teaching ......................................... 132
No Effect on Retention Decisions ......................................................................................... 135
DISCUSSION .......................................................................................................................... 136
SUMMARY OF CHAPTER........................................................................................................ 136

CHAPTER 7. MOST VALUABLE ASPECTS OF PARTICIPATION IN PROFESSIONAL DEVELOPMENT PROGRAMS ........................................................................ 137

RESPONSES HEARD FREQUENTLY FROM BOTH CTT AND NWP RESPONDENTS .................. 138
Importance of Community and People ................................................................................. 138
Gender and Race/Ethnicity.................................................................................................................. 210
Age, Teaching Experience, and Retirement Eligibility........................................................................ 211
Full Time Status and Satisfaction With Salary..................................................................................... 212
Intentions to Remain in Teaching ........................................................................................................ 214
Effects of Participation on Retention Decisions .................................................................................. 215
Most Valuable Aspect of PD Program Participation............................................................................ 216
Summary ............................................................................................................................................. 217

APPENDIX F. REGRESSION COEFFICIENTS AND SUBCLASS DESCRIPTIVE STATISTICS........... 218
APPENDIX G. MOST COMMONLY CODED THEMES IN OPEN-ENDED RESPONSE QUESTIONS..... 221
APPENDIX H. LEVEL OF INVOLVEMENT SENSITIVITY ANALYSIS ................................................. 223
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 2-1.</td>
<td>EXISTING RESEARCH ON THE COURAGE TO TEACH PROGRAM</td>
<td>28</td>
</tr>
<tr>
<td>Table 2-2.</td>
<td>RESEARCH ON DEMOGRAPHIC CHARACTERISTICS OF TEACHERS ON BURNOUT/ENGAGEMENT AND ATTRITION/RETENTION</td>
<td>36</td>
</tr>
<tr>
<td>Table 2-3.</td>
<td>RESEARCH ON SCHOOL AND STUDENT CHARACTERISTICS AND TEACHER ATTRITION/RETENTION AND BURNOUT/ENGAGEMENT</td>
<td>42</td>
</tr>
<tr>
<td>Table 3-1.</td>
<td>CTT AND NWP SAMPLE SITES</td>
<td>61</td>
</tr>
<tr>
<td>Table 3-2.</td>
<td>RESPONSE RATES FOR CTT AND NWP</td>
<td>62</td>
</tr>
<tr>
<td>Table 3-3.</td>
<td>CORRELATIONS BETWEEN MBI SUBSCALES AND NCES BURNOUT/ENGAGEMENT SCALE</td>
<td>69</td>
</tr>
<tr>
<td>Table 3-4.</td>
<td>CORRELATIONS BETWEEN MBI SUBSCALES AND APPLIED JOB, HOW LONG PLAN TO REMAIN TEACHER, AND BECOME TEACHER AGAIN</td>
<td>70</td>
</tr>
<tr>
<td>Table 4-1.</td>
<td>DEMOGRAPHIC CHARACTERISTICS OF CTT AND NWP PK-12 RESPONDENTS</td>
<td>77</td>
</tr>
<tr>
<td>Table 4-2.</td>
<td>SCHOOL AND STUDENT LEVEL CHARACTERISTICS OF CTT AND NWP RESPONDENTS</td>
<td>85</td>
</tr>
<tr>
<td>Table 4-3.</td>
<td>YEAR BEGAN PD PROGRAM AND TYPE OF CTT RETREAT SERIES</td>
<td>91</td>
</tr>
<tr>
<td>Table 5-1.</td>
<td>POTENTIALLY CONFOUNDING VARIABLES USED IN PROPENSITY SCORE MATCHING</td>
<td>95</td>
</tr>
<tr>
<td>Table 5-2.</td>
<td>COMPARABILITY ON COVARIATES BEFORE PROPENSITY SCORE MATCHING</td>
<td>99</td>
</tr>
<tr>
<td>Table 5-3.</td>
<td>COMPARISON OF MEAN AND STANDARDIZED DIFFERENCES BEFORE AND AFTER PROPENSITY SCORE MATCHING</td>
<td>104</td>
</tr>
<tr>
<td>Table 5-4.</td>
<td>PERCENT BALANCE IMPROVEMENT IN MEAN DIFFERENCES AFTER PROPENSITY SCORE MATCHING</td>
<td>106</td>
</tr>
<tr>
<td>Table 5-5.</td>
<td>COMPARISON OF CTT AND NWP SCORES ON MBI SUBSCALES BEFORE PROPENSITY SCORE MATCHING</td>
<td>108</td>
</tr>
<tr>
<td>Table 5-6.</td>
<td>COMPARISON OF CTT AND NWP EFFECT SIZES ON THE MBI SUBSCALES BY SUBCLASS AND OVERALL</td>
<td>109</td>
</tr>
<tr>
<td>Table 5-7.</td>
<td>COMPARISON OF CTT SCORES ON MBI SUBSCALES TO MBI NORMATIVE SAMPLE OF TEACHERS</td>
<td>113</td>
</tr>
<tr>
<td>Table 5-8.</td>
<td>DEMOGRAPHIC CHARACTERISTICS OF RECENT MBI TEACHER STUDIES</td>
<td>115</td>
</tr>
<tr>
<td>Table 5-9.</td>
<td>COMPARISON OF CTT SCORES ON MBI SUBSCALES TO OTHER CONTEMPORARY STUDIES</td>
<td>116</td>
</tr>
<tr>
<td>Table 5-10.</td>
<td>CTT RESPONDENTS COMPARED TO STUDIES AT SAME GRADE LEVEL</td>
<td>117</td>
</tr>
<tr>
<td>Table 5-11.</td>
<td>ITEMS IN PERCEIVED BENEFITS OF PARTICIPATION SUBSCALES</td>
<td>121</td>
</tr>
<tr>
<td>Table 5-12.</td>
<td>PERCEIVED BENEFITS OF PD PROGRAM BEFORE PROPENSITY SCORE MATCHING</td>
<td>122</td>
</tr>
<tr>
<td>Table 5-13.</td>
<td>PERCEIVED BENEFITS OF PD PROGRAM AFTER PROPENSITY SCORE MATCHING</td>
<td>123</td>
</tr>
<tr>
<td>Table 6-1.</td>
<td>STATUS OF RESPONDENTS NOT CURRENTLY TEACHING AND THEIR REASONS FOR LEAVING</td>
<td>127</td>
</tr>
<tr>
<td>Table 6-2.</td>
<td>INTENTIONS TO REMAIN IN TEACHING</td>
<td>129</td>
</tr>
<tr>
<td>Table 6-3.</td>
<td>COMPARISON OF PLANS TO REMAIN IN TEACHING BETWEEN CTT SAMPLE AND NEA SAMPLE</td>
<td>130</td>
</tr>
<tr>
<td>Table 6-4.</td>
<td>SELF-REPORTED EFFECTS ON RESPONDENTS’ DECISIONS TO REMAIN IN, LEAVE, OR RETURN TO TEACHING</td>
<td>133</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Figure 2-1. Desimone’s proposed core conceptual framework for studying the effects of professional development on teachers and students (p. 185). Copyright SAGE Publications, 2009. ..............................................25
Figure 2-2. Adaptation of Desimone’s conceptual framework to transformative professional development. .............................................................27
Figure 3-1. Sample selection process for CTT and NWP. .................................................................................................................................59
Figure 3-2. Sample items from the Maslach Burnout Inventory-Educators Survey..............................................................66
Figure 4-1. Comparison of CTT respondents and the NCES national sample by gender. ..................................................78
Figure 4-2. Comparison of CTT respondents and the NCES national sample by race/ethnicity. ..................79
Figure 4-3. Comparison of CTT and NWP respondents by age. .................................................................................................80
Figure 4-4. Comparison of CTT and NWP respondents by teaching experience. .................................................80
Figure 4-5. Comparison of CTT respondents and the NCES national sample by age. .................................................81
Figure 4-6. Comparison of CTT respondents and the NCES national sample by teaching experience. ....81
Figure 4-7. Comparison of CTT respondents and the NCES national sample by full time teaching status. .................................83
Figure 4-8. Comparison of CTT respondents and the NCES national sample by school level. ..........86
Figure 4-9. Comparison of CTT respondents and the NCES national sample by school size. ..................87
Figure 4-10. Comparison of CTT and the NCES national sample on school locale.................................87
Figure 4-11. Comparison of CTT and the NCES national sample by public/private sector. .........................88
Figure 4-12. Comparison of CTT respondents and the NCES national sample on percentages of non-White and FRL students. .................................89
Figure 5-1. Treatment and control cases plotted by propensity scores, matched and unmatched cases, and subclasses. ............................................................................102
Figure 5-2. Standardized mean differences on covariates before and after matching .................................................105
Figure 5-3. Comparison of CTT and NWP on perceived beneficial effects of participation in their respective PD program..............................................................122
CHAPTER 1. RESEARCH PROBLEM AND SIGNIFICANCE OF STUDY

Introduction to the Research Problem

7:33 A.M.: The shrill ringing of the phone penetrated into what had been a deep, dreamless sleep. Groggily, I answered it—I listened for a moment, and then sat bolt upright and started throwing on clothes and heading out of my apartment faster than I probably ever had in my whole life.

It was the end of my first year of teaching high school Japanese at two local schools. For one of my classes, it was the day of the final exam. That class had started 15 minutes ago, and I was not there—thus the call from the school’s secretary. I had been so exhausted from end-of-semester activities the day before that I had taken a nap (something I rarely did before I started teaching) and had forgotten to switch my alarm back to A.M. from P.M. when I had gone to bed that night.

It turned out all right in the end. It was a block class that lasted an hour and a half, and I had been planning to spend the first part reviewing anyhow—they just had to do it without me. And for my students, it was an added bonus when their teacher admitted to them that she had, indeed, overslept on the day of their final exam.

This incident, which took place over fifteen years ago, is representative in many ways of how my first year of teaching went. It took all the resources and energy I could muster that first year just to make it through each day, frantically come back home, grade papers, and try to figure out what I would do in class the next day—and often I did not succeed as well as I would have liked. It seemed that all I did that entire first year was go to school, plan for upcoming classes, eat, and sleep. But I was also offered a window into the amazing world of teaching and learning. My students were a fascinating collection of individuals, and trying to figure out how to best reach each one of them on a day-to-day basis was an emotional and intellectual challenge that I found very inspiring and satisfying. Teaching was, and still is, the most challenging and rewarding job I have ever been lucky enough to have.
After two years of teaching, I had the beginnings of a strong and self-sustaining Japanese language program at one of the schools. I had gone to Japan that summer with students and come back reenergized and with lots of new ideas and materials. But I did not get to teach that third year. My emergency teaching license was no longer sufficient, even though I planned on entering an alternative licensure program, because now another person with a Japanese teaching license in hand was available. And yet, I have to wonder—even if I had been able to teach that third year, how long would I have stayed? Would I have been able to keep up the pace I was setting for myself? Would I have left teaching altogether in a year or two more, or ended up staying but without the passion that I had for teaching when I first started? I will never know the answers to these questions, but they do help to explain how I have come to write a dissertation on transformative professional development and teacher engagement and retention.

The Person Who Teaches

I am particularly interested in professional development programs that go beyond the traditional focus on teaching technique and skills. I will refer to these programs as *transformative*, in that they focus specifically on the *person* who teaches. Thanks to this focus, the whole person becomes important: not just what she\(^1\) knows about subject matter and pedagogy, but also—for example—how she interacts with her students; what kind of relationships she has with her colleagues; how her own emotions influence her teaching; whether or not she views teaching as a vocation or as “just a job;” and how she can best take care of herself so that she has as much to give as possible to her teaching. Once again, my interest in this form of professional development has been piqued by my own experiences as a teacher.

\(^1\) For consistency, and since the majority of the subjects in my study are female, I will use “she” as a generic term intended to refer to both male and female teachers and respondents.
I alluded above to the fact that I spent not only large amounts of time and energy as I began to learn how to teach, but also a great deal of emotional energy. I quickly realized that knowing my subject matter, although an absolutely necessary part of teaching well, was insufficient. If I did not connect my subject material to my students in some way, if I did not share my love of Japanese with them and draw out their own passions, then much of what I attempted in the classroom fell on deaf ears. I also realized that I was not just dealing with Japanese vocabulary and grammar structures in my classroom, but with whole human beings who brought a wide variety of background knowledge and experiences to the table.

When I felt that I was most effective as a teacher, it was when I was able to help students see strengths in themselves and in others that they had not been able to see before. I was only able to do this if I developed relationships with my students and cultivated my own self-awareness. During my first year a group of my students and I started a Japanese culture club, and I was amazed at how different our interactions were when we were not in the classroom. In some cases, I felt as if I was seeing students in a completely different light—becoming aware of interests, talents, concerns, and insecurities that had not been apparent to me before. All of this new information helped me in the classroom, specifically in my interactions with my students, and how I responded to them and what I expected of them. When I saw how enthusiastically and knowledgeably Haley talked about Japanese anime (animated cartoons), I realized that she did have a genuine connection and interest in learning Japanese, even if I had not yet seen it in the classroom—but I could find ways to build on that interest. If I knew that Ryan was likely not paying attention because he was thinking about his parents’ impending divorce, I could avoid projecting my own insecurities onto him and thinking that he was not paying attention because he was being rebellious, or because I was a terrible teacher. As my students and I grew to know
more about each other, and as I realized more about myself and how I influenced interactions with my students, the more positive our relationships became. In turn, more learning took place in the classroom, and I felt more enthusiastic and fulfilled about teaching.

Getting to that point was not easy. I clashed with my students as I tried to figure out how strict to be, whether to allow them to turn in homework late, how to deal with absences, what tone to take with them as we interacted in the classroom. I needed all the help I could get, and I turned to colleagues and friends who were willing to listen to my worries and concerns about teaching. I needed to process what was going on in my classroom, how I had reacted, what I could do differently next time, and I desperately wanted new ideas and perspectives. I needed people who could acknowledge the conflicting emotions that I was feeling—exhilaration when something went well, anxiety when I said the wrong thing or used too harsh a tone, fear that I would come across as inexperienced. I did not want someone to tell me how to teach—I just needed someone who would listen to me and provide support as I went through the process of discovering who I was as a teacher. The people that I found with whom I could have these sorts of conversations, especially current or former teachers, were invaluable to me in my development. There was no formal outlet for this, however, and although I did find colleagues who were willing to converse about teaching in this way, I had to seek them out on my own.

Many years later, when I was teaching an introductory undergraduate education course at the University of Colorado at Boulder, I discovered a professional development program that met many of the needs I had experienced in my initial foray into teaching. Through a connection with one of my professors, I was able to attend a sampler retreat based on the Courage to Teach professional development program, which is a program that is explicitly trying to be transformative in its focus (M. Jackson & Jackson, 2002). At a retreat center tucked away in the
Geil

mountains, a diverse group of K-16 teachers, administrators, and graduate students gathered together for a weekend to discuss the meaning of teaching in their lives and to reconnect with their own personal gifts and strengths so that they could draw on them more completely in the classroom and in their work. The retreat was not about offering advice, but rather about deep listening and providing time for self-reflection, both in solitude and in the company of others. I was hooked—this was exactly the sort of community I had been seeking when I first began teaching Japanese all those years ago. I could only imagine how much having had access to a community such as this would have helped me as a new teacher.

The Courage to Teach sampler retreat provided me with the space to reflect on many questions, including how best to interact with my students, my relationships with my colleagues, and my sense of myself as a teacher. These issues are closely intertwined with whether or not I would have continued to teach at the K-12 level and the degree to which I would have remained engaged. Together, these experiences have led me to hypothesize that transformative professional development programs that focus on and provide support to the person who teaches can be a valuable tool in helping teachers to stay positively engaged with the profession of teaching.

**Research Questions**

The primary research question for this study is whether or not participation in a transformative professional development (TPD) program has an effect on subsequent teacher engagement and retention. Two other related questions involve the background characteristics of teachers who choose to participate in TPD, and the perceived benefits of participation in TPD programs.
To answer these questions, I gathered demographic information as well as data related to engagement with teaching and perceived program benefits by surveying two groups of teachers: (a) alumni of Courage to Teach, a transformative professional development program, and (b) a sample of alumni from the National Writing Project, a non-transformative professional development program. While the National Writing Project does contain some transformative elements, it is not expressly designed as a TPD program and thus acts as a control group in this quasi-experimental study. The three primary research questions are as follows:

1. What are the characteristics of teachers who participate in a transformative professional development program such as Courage to Teach? How do they compare to teachers who participate in other forms of professional development, and in what ways?

2. Does participation in Courage to Teach have an effect on subsequent engagement with and retention in teaching?

3. Are there differences between Courage to Teach and National Writing Project participants with regards to (a) their assessment of the program’s effects on their understanding of subject matter, professional relationships, energy levels, and motivation to teach, and (b) their personal perceptions of the program’s most valuable aspects?

The data from the two groups of professional development (PD) program alumni on the online survey will be compared with each other, and the Courage to Teach (CTT) data will also be compared with normative samples from previously existing instruments, and with a nationally representative sample of teachers from the U.S. Department of Education’s National Center for Education Statistics’ most recent Schools and Staffing and Teacher Follow-Up Surveys.
Characteristics that could affect engagement and retention other than participation in the PD program (e.g., age, teaching experience, school size) will be accounted for in the study design, which will be discussed in detail in Chapters Three and Five.

**Significance of the Study**

When teachers become less engaged, schools, teachers, and students all suffer. In addition, teachers who lose their sense of engagement with the profession may decide to leave the field, which has its own set of costs and consequences. Teachers are also a key component of the success of the entire educational process, and so it is critically important to find ways to promote teacher engagement.

**Engagement and Burnout**

What does an engaged teacher look like? She is enthusiastic about teaching, and looks forward to going to school in the morning. She enjoys interacting with the people she comes into contact with throughout the day, whether they are students, parents, staff, colleagues, or administrators. She looks at her students positively, and is willing to give them the benefit of the doubt even when they disappoint her; she is able to see things from their point of view. She sees potential in her students, and she challenges herself to find out what they need in order to unlock that potential and help them move forward with their learning. Her teaching brings her satisfaction; she feels efficacious in her work and confident that her time and energy are being well spent—that she is indeed making a difference (Maslach, 2003; Maslach, Schaufeli, & Leiter, 2001).

Unfortunately, the exact opposite is an all too frequent picture: a teacher who dreads going to school each day, who is sure her students are incapable of learning and have few redeeming characteristics, who feels that she is wasting her time and energy in trying to teach or
do anything beyond the bare minimum (because the students will not appreciate her efforts or take anything away from it anyway). This teacher is burned out.

Both these pictures are, of course, extremes, but they provide good descriptions of the concepts of engagement and burnout. Much research has been done on the concept of burnout, which is defined as:

...a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do “people-work” of some kind. It is a response to the chronic emotional strain of dealing extensively with other human beings, particularly when they are troubled or having problems.

(Maslach, 1982/2003, p. 2)

While burnout is often considered on its own, as a distinct phenomenon, recent work has suggested that burnout can be viewed as one end of a spectrum, the opposite end of which is “engagement” – a sense of personal fulfillment, energy, involvement, and efficacy regarding one’s work (Leiter & Maslach, 2005; Maslach, 2003; Maslach, Jackson, & Leiter, 1996; Maslach & Leiter, 2008; Maslach et al., 2001). If burnout is the negative end of the continuum, then engagement is the positive end, and this continuum can be broken down even further into three components: exhaustion-energy, cynicism-involvement, and inefficacy-efficacy (Leiter & Maslach, 2005; Maslach & Leiter, 2008).

Burnout manifests itself through the following three dimensions: emotional exhaustion, which involves a lack of energy for getting the job done, wanting to stay home from work or even quit, and a feeling of “just not having anything left to give.” The second dimension, cynicism or depersonalization, shows how the individual feels about others—someone with a high degree of cynicism might start to detach from her students, to view them more harshly and
negatively, to see them less clearly as people she can empathize with and more as “others” who are not deserving of her attention and are not capable of learning. The third dimension, *professional efficacy or personal accomplishment*, is a reflection of how the person evaluates herself. Feelings of inefficacy, a sense that nothing is being accomplished or can be accomplished, and of one’s time and energy being wasted go along with reduced professional efficacy (Byrne, 1999; Huberman & Vandenberghhe, 1999; Maslach, 1982/2003, 1993, 1999, 2003; Maslach et al., 2001; Schutte, Toppinen, Kalimo, & Schaufeli, 2000).

An engaged teacher, on the contrary, would have low *emotional exhaustion*, low levels of *cynicism*, and high feelings of *professional efficacy*. Engaged teachers have energy for getting the job done, an eagerness to go to work, and the necessary emotional resources. They are connected to their students, view them positively, see them as people they can empathize with, and they also draw strength from their interactions with colleagues and other members of the school community. Engaged teachers have strong feelings of efficacy, a sense of accomplishment, and a belief that their time and energy are being put to good use.

**The Importance of Engaged Teachers**

Over the years, reviews of studies on student achievement have consistently shown that the differences among teachers account for more of the variation in student performance than almost any other in-school factor, including class size, composition of the students, and methods or curriculum used (American Council of Education, 1999, 2002; Darling-Hammond, 2006a; Darling-Hammond & Youngs, 2002; Hawley & Valli, 1999; Rivkin, Hanushek, & Kain, 2005). While this is something that seems obvious for many people based on their own school experiences, there is now empirical research to back up this claim. As the American Council of Education’s research synthesis states, “The success of the student depends most of all on the
quality of the teacher. We know from empirical data what our intuition has always told us: Teachers make a difference. We now know that teachers make the difference” (1999, p. 5). Many educational researchers agree that we must look out for the well-being and vitality of our teachers as they are such an important part of the effective functioning of our schools and the education of our students (Darling-Hammond, 2006a; Darling-Hammond & Youngs, 2002; Intrator & Kunzman, 2006; Maslach & Leiter, 1999).

Sam Intrator (2005) shares the words of a outstanding teacher, who told him that the most critical aspect of good teaching was best expressed through the old saying, “’If Momma ain’t happy, ain’t nobody happy.’ If you get a teacher in the classroom who’s not happy, then look out, little children” (p. 12). Intrator goes on to elaborate further:

It’s worth lingering on the cold implications of this teacher’s observation. If our teachers are unwell— weary, unhappy, or demoralized— then our children will suffer. Conversely, available, energized, and soulful teachers provide opportunities for our children to thrive because—as teachers—our moral energy matters, our idealism matters, our capacity to be fully present for students matters.

In other words—who we are matters. (2005, p. 12)

This observation brings home the fact that teachers, and especially engaged teachers, are a critically important part of the learning process. Student learning is affected by teachers in many ways; for example, one study found that college students randomly assigned to hear a short lecture from a highly enthusiastic teacher (as measured by specific non-verbal cues) consistently reported feeling more intrinsic motivation to learn about the subject of the lecture than the students assigned to the low enthusiasm condition (Patrick, Hisley, & Kempler, 2000). Another study with Dutch music teachers and their students found evidence of a correlation between the
amount of work enjoyment, absorption, and intrinsic motivation that the teachers felt and the amount of similar experiences their students reported feeling (Bakker, 2005). Many teachers themselves believe this to be true: in a national survey of over 40,000 teachers (Scholastic Inc. & the Bill and Melinda Gates Foundation, 2010), 82% rated “effective and engaged teachers” as absolutely essential to improving student achievement, more than any other item on the list.

The Costs Associated with Low Engagement and Burnout

Many teachers grapple with a loss of engagement in their vocation after years of struggling with bureaucratic requirements, accountability standards, and low societal respect and salaries (Brackett, Palomera, Mojsa-Kaja, Reyes, & Salovey, 2010; Farber, 1983; Sakharov & Farber, 1983; Wood & McCarthy, 2002). This loss of engagement is exacerbated by discipline problems in the classroom and the fact that teachers may do their work each day with few opportunities to even talk to another adult, much less the chance to exchange ideas or collaborate (Brouwers & Tomic, 2000; Cherniss, 1995; Pines, 2002; Troman, 2000). Furthermore, in today’s climate of educational reforms and standardized testing, many teachers find themselves in situations that force them to act in ways that run counter to their own purposes and values regarding teaching.

All of the causes mentioned above can lead to a lack of engagement, or burnout, that can be serious for the professionals themselves, the institutions in which they work, and the clients they serve. Teachers suffering from a loss of engagement have essentially three options: somehow reengaging with the profession, leaving the profession, or staying on but teaching in a disaffected manner. Obviously those who stay on continue to affect their students most directly, but the consequences of a loss of engagement with the vocation of teaching can affect all students and teachers, regardless of where the teachers are in the process.
Initial studies conducted in the 1970s and 1980s by Maslach, Jackson, and colleagues found a variety of negative consequences for not only the burned out professional, but also the institution in which she worked and the clients in her care. These studies showed that:

[burnout can lead to] a deterioration in the quality of care or service provided by the staff. It appears to be a factor in job turnover, absenteeism, and low morale. Furthermore, burnout seems to be correlated with various self-reported indices of personal dysfunction, including physical exhaustion, insomnia, increased use of alcohol and drugs, and marital and family problems. (Maslach et al., 1996, p. 4)

Later studies have confirmed these findings—for example, Lowenstein (1991) found that burnout among teachers was correlated with feelings of hopelessness, impatience, and irritability, as well as increased drug and alcohol abuse. Teachers who have become burned out tend to have less motivation or interest in teaching. They are not as patient when interacting with students, and they are also less optimistic. As a result, they invest less time in planning for their courses, and interact less with their students in terms of both quantity and quality. Students are likely to receive less positive feedback and more criticism, which can affect their sense of self-efficacy and ultimately their sense of competence as learners and their attitudes towards school (Farber, 1991; Huberman & Vandenberghe, 1999; Hughes, 2001; Maslach & Leiter, 1999; Pines, 2002). Burned out teachers can negatively affect their colleagues as well, by causing personal conflict or not following through on job tasks (Maslach et al., 2001). Burnout is correlated with the desire to change jobs and thoughts about leaving teaching (S. E. Jackson, Schwab, & Schuler, 1986). Eventually, some teachers leave the profession all together, and this brings with it its own host of consequences.
The Costs Associated with Movers and Leavers

Districts across the nation are continually faced with the problem of attracting and retaining qualified teachers. Teachers new to the profession leave at an alarming rate: almost one-third leave within the first three years, and up to 50% after five years (Alliance for Excellent Education, 2005; National Education Association, 2003a, 2003b). Even though many teachers report high rates of fulfillment with their careers, they tend to leave at higher rates than those in other occupations (Public Education Network, 2003). Ingersoll (2001), in an analysis of School and Staffing Survey data from the early 1990s, found that the turnover rate for teachers hovered at a rather high 14% compared to the annual rate of employee turnover in all fields, which the Bureau of National Affairs has published at 11%. Approximately half of this turnover can be attributed to teachers leaving the profession due to retirement, to have a family, or because they are dissatisfied with teaching—the “leavers.” The other half consists of teachers who remain in the profession but move to different schools—the “movers” (Luekens, Lyter, & Fox, 2004; Provasnik & Dorfman, 2005). The percentage of all teachers who leave the profession in any given year has gone up fairly steadily from 5.1% in the early 1990s to 8.0% in 2008-2009 (Keigher, 2010).

The cost to schools and students of these high turnover rates is, by some counts, immense. The Alliance for Educational Excellence (2005) conservatively estimates that the nation loses $2.2 billion each year to replace just the “leavers.” If the “movers” are included, the cost rises to an estimated $4.9 billion every year. Regardless of whether teachers are transferring to other schools or leaving the profession, administrators are still faced with the same task of replacing them. This means more time and money spent hiring, recruiting, and training new teachers (Luekens et al., 2004; Provasnik & Dorfman, 2005; Public Education Network, 2003).
Some estimate that it can cost up to $50,000 just to replace one teacher (Carroll & Fulton, 2004; Darling-Hammond, 2006b).

There are also potential negative effects for both schools and students. Students suffer because new teachers, especially if they did not receive adequate preparation to become a teacher, often do not know how to effectively help all their students learn. They are too frequently overwhelmed by “basic survival and classroom management rather than student learning” (Darling-Hammond, 2006a, p. 42). Qualitative and quantitative research has shown that new teachers are not as confident and effective in their practices as more experienced teachers (Feiman-Nemser, 2001; Hanushek, Kain, & Rivkin, 1998; Rivkin et al., 2005). Even more experienced teachers that move to a new school will have to divert some of their mental energies to the tasks of getting to know the new school, its students, and its culture. Finally, on an organizational level high turnover rates can negatively affect the community and cohesiveness of a school, which are recognized as being of prime importance to the overall functioning and effectiveness of schools (Bryk & Schneider, 2002; Ingersoll, 2001).

Clearly the costs to schools and students of low teacher engagement and high teacher attrition rates are considerable in terms of time, money, energy, community, student learning, and effectiveness. Engagement and retention of teachers are major issues for schools, and finding ways to promote either one of them is a valuable goal. Recognizing the importance of teachers to the educational process also reminds us of the need to help teachers be as engaged and as effective as possible.

Possible Ways to Promote Engagement and Reduce Attrition

There are many ways we might be able to promote engagement and retention among teachers. Attempts to address various structural issues are being made all around the country. For
example, the small schools movement tries to make schools and class sizes smaller so that it is easier for meaningful relationships to be formed. Other districts are trying to adjust schedules to allow greater opportunities for teachers to collaborate with other teachers and to engage with their students in more meaningful ways. Schedules can be structured so that all of the teachers in a department have regularly scheduled times to meet together or have their planning periods at the same time. Block schedules in which students have longer class periods fewer times a week allow teachers to have more time with their students, cover the subject matter more in-depth, and get to know their students better (Coalition of Essential Schools, 2006; Hargreaves, 1998; Hoffman & Levak, 2003; Sizer, 1999). And, of course, in many places the emphasis is on raising salaries to higher levels or providing other financial incentives, both to entice qualified candidates into teaching and to encourage others to stay (Hanushek, Kain, & Rivkin, 2001; Moore Johnson et al., 2001; National Education Association, 2003a).

While structural changes to the working conditions and societal status of teachers are definitely needed, another way to increase engagement, retention, and the well-being of teachers is through professional development. Often, when we talk about influencing teachers, we focus on teacher preparation programs. However, only about 17% of the teaching force are new hires in a typical year, and only 4% are actually new to the profession and teaching for the first time—all the rest of the new hires are experienced teachers who are either moving schools or are returning to the profession after a break, often to raise a family (Provasnik & Dorfman, 2005). Thus, inservice professional development is important because it has the potential to impact a very high percentage of teachers. But all forms of professional development are not the same; in fact, they often have very different goals.
The Potential of Transformative Professional Development

Transformative professional development that focuses on the person who teaches may be able to address some of the needs that teachers have even after participating in preservice teacher education programs and becoming a teacher. While teacher preparation programs provide content and pedagogical skills, they rarely prepare new teachers for the emotional and interpersonal interactions needed to be successful in the classroom (Cherniss, 1995; Friedman, 2000; Maslach, 1993; Pines, Aronson, & Kafry, 1981; Sakharov & Farber, 1983). As Darling-Hammond says, teachers need the kind of preparation that will help them “manage, with grace and purpose, the thousands of interactions that occur in a classroom each day” (2006a, p. 5). Even the most experienced teachers are not immune from the struggles that can accompany a particularly challenging student or difficult colleague. Teachers also rarely have the chance to slow down and reflect on their strengths and weaknesses, their relationships, and the balance between their personal and professional lives in a constructive manner. Transformative professional development programs offer opportunities for the people who teach to focus on the relational, emotional, and personal aspects of teaching, while providing what is sometimes a much-needed source of support.

Summary and Structure of Remaining Chapters

This introductory chapter explained how I came to be interested in the issue of teacher engagement as well as in transformative professional development. The primary research questions and methods of data collection were introduced. Portraits of engaged and burned out teachers were painted, and the concepts of burnout and engagement explicated. I discussed how attrition and a loss of engagement on the part of teachers leads to great costs for schools,
communities, students, and teachers, and the importance of teachers themselves in the learning process.

In Chapter Two, I will define transformative professional development in more detail and introduce the transformative professional development program that will be the focus of this study: Courage to Teach (CTT). I will review the research that has been conducted to date on Courage to Teach programs to explain why I expect a program like CTT to influence engagement and retention among teachers. Characteristics of schools, students, and teachers that could also influence engagement and retention, as well as provide a descriptive picture of the teachers who participate in TPD, will also be examined.

In Chapter Three, I will discuss the design of the study—a survey administered to a sample of alumni from Courage to Teach and from the National Writing Project (NWP). The sample selection process and the survey instrument will be reviewed. The primary instrument I will use to measure engagement, the Maslach Burnout Inventory-Educators Survey, will be discussed in terms of its reliability and validity. I will also describe the pilot test I conducted, talk about confidentiality issues, and consider limitations to the survey data.

Chapter Four will discuss the results of the first research question, which asks about the demographic characteristics of PK-12 teachers who choose to participate in Courage to Teach. Chapter Five will delve into the second and third research questions, with regards to those data being used to calculate estimated effects. I will also describe the technique called propensity score matching, which matches the respondents in the two groups on a number of potentially confounding variables to obtain the most comparable sample possible. This matched sample is then used to make a causal estimation of an effect. Chapter Six and Chapter Seven will present the remaining data on the second and third research questions, which are of a qualitative,
exploratory nature. Finally, Chapter Eight will synthesize the results, consider ways in which the study could be improved, and talk about directions for future research.
CHAPTER 2. LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Transformative Professional Development and Courage to Teach

Transformative professional development (TPD) holds particular promise for the promotion of engagement with and retention in the profession of teaching. TPD encompasses professional development programs that focus on the person who teaches, and not just on the “what” or the “how” of teaching. As Parker Palmer (1998) explains,

The question we most commonly ask is the “what” question—what subjects shall we teach? When the conversation goes a bit deeper, we ask the “how” question—what methods and techniques are required to teach well? Occasionally, when it goes deeper still, we ask the “why” question—for what purpose and to what ends do we teach? But seldom, if ever, do we ask the “who” question—who is the self that teaches? How does the quality of my selfhood form—or deform—the way I relate to my students, my subject, my colleagues, my world? (p. 4)

In professional development programs that focus on the self that teaches, space opens up to consider the whole person—not only the rational and cognitive aspects of teaching, but also the emotional aspects, the relationships and interactions that take place in schools, and the teacher’s own self-understanding and personal well-being. This definition aligns with that of the Fetzer Institute, a Michigan-based philanthropic research center, which defines transformative professional development as encompassing a small but innovative group of programs that focus “on the emotional, spiritual, and personal dimensions of educators so they can bring their identity and integrity more fully into their work” (Fetzer Institute, 2005, p. 1). A review of seven transformative professional development programs found that all have a focus on wholeness, a goal of integrating personal and professional worlds, and are based on a foundation of self-
awareness and community support (Byrnes & Borko, 2008). Goals of such transformative professional development programs include giving teachers the chance “to renew their vitality and sense of purpose, increase their capacity to be present, and draw on their inner resources...[so that they can] engage in more meaningful ways in the classroom and with their colleagues” (Fetzer Institute, 2005, p. 1). Inherent in this definition of transformative professional development is a sense that the program will provide teachers with a source of personal support, something that is often lacking in our educational culture. As Bryk and Schneider (2002) point out,

While most discussions in education policy today focus on the technical dimensions of teaching and its enhancement, that teachers’ humanness is very much a part of their practice is important to remember, and teachers need expressions of personal regard and support as much as anyone else does. (p. 27)

The use of the word “transformative” is also enlightening; with regards to people it means to change or convert the appearance, character, nature, or condition of someone (American Heritage Dictionary, 2001; Merriam-Webster, n.d.). As used in TPD, the implication is that those who participate in such programs will leave feeling differently about themselves than when they came in. This is due to the emphasis on the person who teaches, and it is the “self” that is most likely to be “transformed.” In other contexts, “transformative” may refer to political or social change on a more structural or systemic level, but in this study the term indicates transformation at the level of the individual.

The primary difference between transformative professional development and other forms of professional development is the area of focus. TPD focuses on the person who teaches—the “who” of teaching, rather than the “what” and the “how”—and on the emotional
and relational aspects of teaching, how the teacher personally identifies with the profession of teaching, and the well-being of the teacher. There is a hope that participants will learn ways to take care of themselves on a personal level, which in turn may help them to better balance and integrate their life and work. It could be said that TPD programs are “tending teachers not training teachers” (Intrator & Scribner, 1998, p. 17). On the other hand, most non-transformative professional development programs focus on a particular content area and the development of the teachers’ knowledge and pedagogical skills, or on specific aspects of teaching such as classroom management (Desimone, Porter, Garet, Yoon, & Birman, 2002; No Child Left Behind Act, 2001). Specifically missing from the goals of a non-transformative professional development program is this focus on the personal well-being of the participants—although it may, of course, be a side-effect.

The History, Structure, and Mission of Courage to Teach

The Courage to Teach professional development program, now one of the most well established examples of a transformative professional development program in the country, is the focus of the current study. Courage to Teach began as a collaborative undertaking between Parker Palmer, an author and educator, and the Fetzer Institute in Kalamazoo, Michigan. The Fetzer Institute was interested in developing a long-term project that would “aid in the formation of teachers,” and in 1992 its president asked Palmer, a Senior Advisor at the institute, to write a memo that could be used to inform the creation of this project (Center for Courage and Renewal, 2006b). As Palmer (1992) explained, the focus of this program was to be on teacher formation rather than teacher training for several reasons:

Formation is a concept from the spiritual traditions, and it involves a concern for personal wholeness. Where training asks if the person has the right knowledge
and technique, formation asks after the state of the person’s soul. Where training offers the person new data and methods, formation offers the person help in discerning his or her identity and integrity. (p. 1)

In 1994 the first pilot retreat series began in southwest Michigan with 22 teachers in attendance and Palmer as the facilitator. The response to this initial foray into a retreat series for teachers that focused not on training and technique but on teachers’ individual integrity and identity was “overwhelmingly positive,” and in 1996 four more sites across the country began retreat programs: Michigan, South Carolina, Washington State, and Maryland/District of Columbia (Palmer, Jackson, Jackson, & Sluyter, 2001). Today, the Center for Courage and Renewal lists 106 Courage to Teach facilitators living in 30 states, along with an additional four facilitators in Canada and one in Australia (Center for Courage and Renewal, n.d.-a). At least 3,000 educators have participated in Courage to Teach retreat series since that first pilot program took place (Chadsey, 2010). The program has widened to include school principals and other administrators, and has also spread into the fields of medicine, law, religion, philanthropy, and the non-profit sector (Center for Courage and Renewal, 2006a, 2006b).

A Courage to Teach retreat series consists of four to eight quarterly retreats over a year and a half to two years. All of the three-day weekend retreats have a specific seasonal theme, which allows the group of twenty to thirty educators to use the “rich metaphors of the seasons as a way of exploring vocational and life questions” (Center for Courage and Renewal, n.d.-b). Both solitude and community are required for this work, and opportunities for large-group, small-group, and individual pursuits are part of each retreat (Palmer et al., 2001). A variety of methods are used to facilitate conversation and reflection, including personal stories, metaphors, and poems (Center for Courage and Renewal, n.d.-b; M. Jackson & Jackson, 2002). The retreats
themselves are held in settings conducive to these activities, with adequate space for group work, proximity to nature or walking paths, and comfortable rooms and nourishing food; participants have noted the physical environment and the degree of care and respect with which they were treated as being important parts of their overall experience (Intrator & Scribner, 1998, 2002).

Courage to Teach is specifically not about content, technique, or school reform, but rather focuses on “renewing the inner lives of professionals in education.” The intention is that participation in a Courage to Teach retreat series:

- Renews heart, mind, and spirit through the exploration of the inner landscape of a teacher’s life;
- Reconnects to one’s identity and integrity—identifying and honoring gifts and strengths, and acknowledging limits;
- Creates a context for careful listening and deep connection that also honors diversity in person and profession;
- Helps educators create safe spaces and trusting relationships in their schools, with their students and colleagues, and within their communities; and
- Explores the connection between attending to the inner life of educators and the renewal of public education. (Center for Courage and Renewal, n.d.-b)

The focus of Courage to Teach is entirely on the person who teaches: that person’s relationships, emotions, and engagement with teaching. Of particular importance in Courage to Teach is the relationship between “soul and role”—between the identity of the person who teaches and the professional role of the teacher, and the degree to which they are or are not a good match (M. Jackson & Jackson, 2002). Courage to Teach operates under the assumption that “we teach who we are,” and that it is only through exploring the self that teachers can bring the
best parts of themselves to bear in their teaching (M. Jackson & Jackson, 2002, p. 288). Courage to Teach also aims to build safe spaces in which trusting relationships, deep listening skills, and a caring community can be developed with the goal that participants will be able to create similar spaces in their own schools and communities when they return (M. Jackson & Jackson, 2002; Palmer et al., 2001). Finally, the program hopes to provide teachers with the space and time to reflect on their lives and their teaching so that they may rediscover their vocational clarity, (whether that means staying in teaching or not) and find a sense of renewal (M. Jackson & Jackson, 2002).

**Courage to Teach and the Elements of Effective Professional Development**

While there is no absolute agreement on how to determine high-quality professional development, a consensus has emerged on the elements that are most likely to lead to effective professional development, which is generally defined as professional development that results in changes in teacher knowledge, beliefs, and practices and ultimately in positive student learning outcomes (Choy, Chen, & Bugarin, 2006; Desimone, 2009; Elmore, 2002; Hawley & Valli, 1999; Little, 1993; Porter, Garet, Desimone, Yoon, & Birman, 2000; Public Education Network & The Finance Project, 2004; Wayne, Yoon, Zhu, Cronen, & Garet, 2008). Some of these elements are based on “best practices” or expert opinion, others on theory, and others on correlational research or case studies (Garet, Porter, Desimone, Birman, & Yoon, 2001). Relatively little empirical research exists on whether and how these elements translate into student outcomes or improvements in teaching, but gradually more research is being done to fill this gap (Garet et al., 2001; Wayne et al., 2008).

The elements that are mentioned most frequently in the effective professional development literature are those related to content, the teacher as a source of expertise, alignment
with school and district policies, sufficient program length, and the involvement of teachers from the same grade level or department. These are the same core features that emerged from a recent review of the available evidence on effective professional development: (a) content focus, (b) active learning, (c) coherence, (d) duration, and (e) collective participation (Desimone, 2009). See Figure 2-1 for a visual representation of this conceptual framework.

![Figure 2-1. Desimone's proposed core conceptual framework for studying the effects of professional development on teachers and students (p. 185). Copyright SAGE Publications, 2009.](image)

Because researchers did not have TPD in mind when creating the consensus on effective professional development, several of the elements do not directly apply to Courage to Teach (CTT). By definition, Courage to Teach is concerned with the person who teaches and not with a particular subject area, so the first element of content focus is not relevant to Courage to Teach or other TPD programs. Courage to Teach does operate under the assumption that by helping teachers gain more knowledge about their own selves, they can bring more to their teaching in any content area. Because CTT does not focus on a content area, curriculum, or technique, the third element of coherence with “school, district, and state reforms and policies” is also not as relevant. As Courage to Teach does not specify outcomes for its participants—it is assumed that the teachers will each discover for themselves what they are to take away from the experience—whatever discoveries teachers make through the program will necessarily be consistent with the
teachers’ current knowledge and beliefs. The fifth element of effective professional development is collective participation, which is defined as involving participants from the same grade, department, or school (Desimone, 2009). CTT programs are occasionally focused around participants from a single school, but because content is not the primary focus, this requirement is again not as critical for CTT. Courage to Teach does focus on creating a professional learning community that is collegial, collaborative, safe, and trusting, and it aims to provide participants with the skills to foster similar relationships at their own schools (M. Jackson & Jackson, 2002; Palmer, 1998)

Courage to Teach certainly possesses the second element of effective professional development, that of active learning and viewing teachers as “experts.” Participants are rarely, if ever, passively participating—they are writing, thinking, reflecting, sharing, reading, and actively listening (M. Jackson & Jackson, 2002). In addition, CTT assumes that all teachers have their own “inner teacher,” or source of wisdom and guidance, and one of the purposes of the retreats is to help teachers listen to this inner voice. The underlying philosophy of CTT is that teachers bring with them a wealth of knowledge about teaching and about students, as well as themselves, and all they need are the tools and the resources to tap into this (M. Jackson & Jackson, 2002; Palmer, 1998). The fourth element of effective professional development, which is for the program to be of sufficient duration, is also met. Courage to Teach is definitely not a one-shot workshop or conference; participants meet for at least four weekends over one to two years.

When attempting to fit the framework for effective professional development to CTT, it quickly becomes clear that several of the features either do not apply or are not relevant, primarily because of CTT’s lack of focus on a particular content area. The features that do apply,
however, are easily met, and even the ones that are not applicable or relevant are not immediately ruled out. Desimone’s conceptual framework can be adapted to fit transformative professional development (see Figure 2-2). Content focus is replaced with a focus on the self, and collective participation with relationships. These core TPD features result in changes to teachers’ attitudes, beliefs, self-awareness, and interactions, which in turn lead to increased teacher engagement and retention, or a better match between the person and the profession. In theory, increased teacher engagement and a better match between person and profession also lead to improved student learning, but this is not the focus of this study (as indicated by the dashed box). This study attempts to determine if participation in TPD has a subsequent effect on teacher engagement and retention, but even if an effect is found, this study cannot say why or how this happens, only whether or not it does.

Figure 2-2. Adaptation of Desimone’s conceptual framework to transformative professional development.

One of the questions raised by this exercise is whether professional development without a specific content focus can have an impact equal to or greater than that of professional development programs with a particular content focus on teachers in the classroom, and ultimately on student learning. If it can, then perhaps the proposed consensus on the elements of effective professional development is unnecessarily narrow, limiting our conceptions of what
effective professional development can be. While the question of the impact on student learning is beyond the scope of this study, the effect of participation in CTT on teacher engagement and retention can begin to be addressed.

**Existing Research and Evaluations on the Courage to Teach Program**

There is a small body of research on the Courage to Teach program, consisting primarily of qualitative dissertations and formal and informal evaluations. By examining this existing work, I can see what has already been accomplished and where there are still gaps to be filled, as well as find support for my hypothesis that participation in Courage to Teach has an effect on subsequent teacher engagement and retention. Studies were included in this section only if they focused specifically on Courage to Teach participants; studies on related programming such as Courage to Lead and Circles of Trust or on adaptations of Courage to Teach retreat series (such as a book group focusing on the book by the same name) were excluded. The following chart describes the existing research (see Table 2-1).

**Table 2-1. Existing Research on the Courage to Teach Program**

<table>
<thead>
<tr>
<th>Author(s) &amp; Date</th>
<th>Title</th>
<th>Data Collection*</th>
<th>CTT Participants (Response Rate)</th>
<th># of Retreat Cohorts (Locations)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dissertations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McMahon, L. (2003)</td>
<td>Rekindling the Spirit to Teach: A Qualitative Study of the Personal and Professional Renewal of Teachers</td>
<td>Semi-structured interviews with teachers having at least 8 years of teaching experience</td>
<td>11 (NA)</td>
<td>Multiple (Washington)</td>
</tr>
<tr>
<td>Simone, G. (2004)</td>
<td>Professional Development as a Process of Renewal: Case Studies of the Courage to Teach Program</td>
<td>Multiple case study; observations of CTT retreats; interviews and observations with teachers, facilitators, and students</td>
<td>4 (NA)</td>
<td>1 (Washington)</td>
</tr>
</tbody>
</table>

(Continued)
<table>
<thead>
<tr>
<th>Author(s) &amp; Date</th>
<th>Title</th>
<th>Data Collection*</th>
<th>CTT Participants (Response Rate)</th>
<th># of Retreat Cohorts (Locations)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dissertations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poutiatine, M.</td>
<td>The Role of Identity and Integrity in Teacher Development: Towards a</td>
<td>Qualitative study; individual and focus group interviews</td>
<td>16 (NA)</td>
<td>Multiple (Washington)</td>
</tr>
<tr>
<td>(2005)</td>
<td>Grounded Theory of Teacher Formation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nollet, K.</td>
<td>Teacher Transformations: A Phenomenological Study on the Effect of</td>
<td>Phenomenological study; survey and interviews after participation in CTT</td>
<td>10 (NA)</td>
<td>1 (New England)</td>
</tr>
<tr>
<td>(2009)</td>
<td>Courage to Teach on Experienced Teachers' Growth and Development</td>
<td>retreat series</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Evaluations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrator, S. &amp;</td>
<td>An Evaluation of the Courage to Teach Program</td>
<td>Phone interviews and written feedback evaluations after participation in CTT</td>
<td>64 (75%)</td>
<td>4 (MD, MI, SC, WA)</td>
</tr>
<tr>
<td>Scribner, M.</td>
<td></td>
<td>retreat series</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1998)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrator, S. &amp;</td>
<td>Courage to Teach - Longitudinal Program Evaluation</td>
<td>Open-ended survey completed 3-5 years after participation in CTT retreat series</td>
<td>50 (53%)</td>
<td>5 (MD, MI, MI, SC, WA)</td>
</tr>
<tr>
<td>Scribner, M.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scribner, M.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2002)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poutiatine, M.</td>
<td>Data Analysis of Courage to Teach Teachers Surveys: Fall 2001</td>
<td>Survey completed before participation in first CTT retreat</td>
<td>45 (92%)</td>
<td>2 (Washington)</td>
</tr>
<tr>
<td>(2002)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poutiatine, M.</td>
<td>Data Analysis of Teachers' Pre-Participation Surveys: Fall 2002</td>
<td>Survey completed before participation in first CTT retreat</td>
<td>51 (NR)</td>
<td>2</td>
</tr>
<tr>
<td>(2003a)</td>
<td></td>
<td></td>
<td></td>
<td>(Washington)</td>
</tr>
<tr>
<td>Poutiatine, M.</td>
<td>Data analysis of Courage to Teach Teachers' Post Participation Survey:</td>
<td>Surveys completed after participation in CTT retreat series</td>
<td>41 (89%)</td>
<td>2</td>
</tr>
<tr>
<td>(2003c)</td>
<td>Surveys Teachers Groups A+B 2001 and 2002</td>
<td></td>
<td>51 (NR)</td>
<td></td>
</tr>
<tr>
<td>Faulkner, A.</td>
<td>Evaluation of Courage to Teach Program - Texas</td>
<td>Surveys completed by community college instructors after participation in CTT</td>
<td>18 (NR)</td>
<td>1 (Texas)</td>
</tr>
<tr>
<td>(2003)</td>
<td></td>
<td>retreat series</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* NA=Not applicable; NR=Not reported.

* None of these studies involve control groups.
The dissertations by McMahon (2003), Simone (2004), Poutiatine (2005), and Nollet (2009) are qualitative studies. Participant numbers were necessarily small in all four given the methods being used; none had more than 16 Courage to Teach alumni. Interviews with participants were used to gather data in all of the dissertations; some also used surveys, observations of retreats and/or classroom practice, and interviews with facilitators of the retreats and students of the participants.

All the evaluations involved some form of survey research either before or after participation in a CTT retreat series. Two evaluations (Intrator & Scribner, 2000, 2002) also included phone interviews with selected participants. The number of participants ranged from 20 to 64 and generally only involved alumni from one program or site, with the exception of two evaluations that drew on alumni from four and five sites respectively (Intrator & Scribner, 1998, 2000).

One study (Intrator & Scribner, 2000) did gather data from colleagues and supervisors of participants so that self-reported data could be triangulated, but to date there have been no known studies or evaluations using any sort of control group in the study design. The majority of the existing studies have involved participants from either a single site or a handful of sites, and also from the same time range. In addition, the data related to engagement with teaching collected by previous studies has been primarily anecdotal. The study being conducted here is the first known to use a quasi-experimental design with a control group, the first to attempt to gather data from Courage to Teach alumni all across the country and from those who have participated recently and as early as the program’s inception 15 years ago, and the first to use a specific instrument to attempt to measure the concept of engagement. Nevertheless, the existing research on Courage to
Teach provides an important foundation to build upon, as well as support for the hypothesis that participation in CTT affects subsequent teacher engagement and retention.

**Findings of Existing Courage to Teach Research Studies**

A common thread running through the evaluations is the improvement that teachers noticed in their relationships with both students and colleagues, which they commonly attributed to their participation in CTT. For example, one teacher (Intrator & Scribner, 2002) said

*I think it [participation in CTT] has made me get down to the root of it all – the relationship between the teacher and student…The teachers kids talk about are those who have made that connection with them…It helped me accept the kids as who they are…I have developed more compassion, empathy, to look through the world at a kid’s eye level (Elementary teacher, 28 years experience). (p. 15)*

In another evaluation (Intrator & Scribner, 2000), 100% of the teachers responding reported that they had seen improvements in their classroom practice, which they primarily attributed to their new ability to create genuine connections with their students. Particularly in the evaluative studies, CTT participants consistently report that their greatest source of satisfaction and fulfillment in their professional lives revolves around connecting with their students and helping them to learn (Poutiatine, 2002, 2003a, 2003b, 2003c). This mirrors studies done on teachers in general and the aspects of teaching that bring the most fulfillment (e.g., Cohn & Kottkamp, 1993; Lortie, 1975).

In a post-participation evaluation of 41 teachers (Poutiatine, 2003b), the majority said that their relationships with colleagues had improved since their participation in the retreat series, and they had become more open and less judgmental (although they were not specifically asked if they felt these were results of their participation in CTT). In Intrator and Scribner’s (2000)
study, 68% of the participants said that CTT had led them to initiate more collegial relationships at their schools. In another study in which participants’ supervisors were interviewed about any changes they had noticed in the participant since the CTT retreat series, one remarked that “…the experience gave her [the participant] some skills to deal with some of the more difficult people on the faculty. She seemed to have more patience and acceptance for people who might be tough to handle on a regular basis…” (Intrator & Scribner, 2002, p. 9).

Teachers report taking some of the activities that were modeled for them in the Courage to Teach retreats, as well as the norms that were established, back to their own classrooms and schools. For example, one high school department chair now begins each departmental meeting by inviting one faculty member to talk for “five minutes about his or her passion for teaching English or current areas of “aliveness” in teaching. The result has been a much greater sense of connection and collegiality within the department…” (M. Jackson & Jackson, 2002, p. 302-03).

Teachers report being more comfortable with silence in the classroom and allowing students more time to gather their thoughts and reflect on what they are learning. In turn, this allows the teachers more opportunity to get to know their students. Some teachers also try to see their students more clearly, recognize their strengths, and listen to them closely. “By being more attentive to students’ gifts and lifting them up, not only is the student-teacher relationship enhanced, but so is the opportunity for mutual respect and learning” (M. Jackson & Jackson, 2002, p. 299). This also applies to colleagues, as explained by this teacher, “I am less critical of teachers in my department. I look more for their gifts than I do for their shortcomings. I find what I seek. My colleagues have more gifts to share with students and staff than I noticed previously” (Poutiatine, 2003b, p. 35).
Participants anecdotally report that their experiences in CTT helped them to learn more about themselves and their strengths, as well as their needs, and that this enabled them to achieve a better balance between their life and work (Intrator & Scribner, 2000; Poutiatine, 2003b). In one study of 50 alumni that took place three to five years after their retreat series, 82% made specific references to ways in which the program had helped them to live in a more balanced and mindful manner, with over half saying that they were now better able to manage the demands of both their work and their personal lives (Intrator & Scribner, 2000).

There is evidence that many teachers find their participation in CTT to be rejuvenating or renewing in terms of their commitment to teaching (McMahon, 2003; Poutiatine, 2005; Simone, 2004). Anecdotal remarks also indicate that participation in CTT can be a factor in whether or not teachers remain in the profession (Intrator & Scribner, 1998, 2000; Poutiatine, 2002, 2003b). In Intrator and Scribner’s (2000) study, more than half had felt “burned out, frustrated, and overwhelmed” at the time they enrolled in the retreat series, but 3 to 5 years later only 3 out of 113 had left the field of education; the rest were still teaching, in administrative positions, or had retired. Out of this same group, 60% stated that CTT had helped them to renew their commitment to teaching. In an earlier study (Intrator & Scribner, 1998), all 64 respondents said that CTT had helped renew their faith in teaching, and some even attributed it to keeping them in the field, as did this teacher:

I really care about kids and I’ve been told I’ve been an effective teacher… But I think I would have quit. There’s nothing else that I could have been given that would have been more valuable than the experience of Courage to Teach (Elementary teacher, 5 years’ experience). (p. 14)
In a survey of participants before they began a CTT retreat series in Washington, 74% said that they only very rarely or occasionally considered quitting their jobs as teachers. When asked the same question two years later, after completion of the CTT retreat series, this number had gone up to 84% (Poutiatine, 2002, 2003b). Again, many teachers in this study reported feeling renewed and recommitted to teaching, and several stated that CTT had helped to keep them in the profession:

When I applied for CTT I had a job lined up and was planning to leave education.
This fall I hosted two student teachers and I am mentoring another teacher on my staff. The only change I made was within myself. (Poutiatine, 2003b, p. 53)

Participants in CTT retreat series consistently state that their participation in CTT is an extremely positive experience (Intrator & Scribner, 1998, 2000, 2002; Poutiatine, 2003b, 2005). There is also reason to believe, as the existing research suggests, that participation in CTT has the potential to influence subsequent engagement with and retention in teaching.

Potentially Confounding and Descriptive Variables

Research has also shown that characteristics of teachers themselves, the schools they teach at, and the students they teach can affect teacher engagement and retention. By gathering information on these variables in my survey, I can describe the teachers who choose to participate in transformative professional development, which helps to answer one of the research questions of my study. In addition, these characteristics are important to consider as potentially confounding variables for this quasi-experimental study: I am interested in establishing that participation in CTT has a subsequent effect on teacher engagement and retention, and the section above reviewed the research that supports this hypothesis. However, if there are other variables that can also affect teacher engagement and retention, then I need to
consider those as well. If they are not accounted for, then any claim that participation in the TPD program affects engagement can be countered with a claim that it is actually these other variables that are causing the effects. In Chapter Five, I will explain how I used the technique of propensity score matching to account for these potentially confounding variables. The remainder of this chapter will review the existing research on the effects of these variables on teacher engagement and retention (see Appendix A for details on the studies reviewed).

There are some limitations to the burnout/engagement research. Many of the studies involve some degree of self-selection bias and a lack of a control group. Or, they were conducted in particular regions of the country and/or with subsets of teachers that cannot be generalized. Other studies on burnout and engagement have used an abridged or significantly modified version of the Maslach Burnout Inventory that makes results challenging to compare. Still other studies were conducted with teachers outside of the United States and cross-cultural differences or expectations regarding teaching may influence the results. It is important to note that many of the researchers acknowledge the limitations of their studies, and as I discuss in Chapter Three, in social science research it is particularly difficult to conduct randomized experiments that would yield unbiased estimates of causal effects (Ho, Imai, King, & Stuart, 2007; Rubin, 2007).

Many of the studies on teacher attrition and retention utilize the National Center for Education Statistics’ School and Staffing Survey (SASS) and the related Teacher Follow-Up Survey (TFS). The advantage of these surveys is that they allow researchers access to data on a large, nationally representative sample of teachers. The surveys, which have been administered six times since 1987, track actual turnover and attrition rates, as opposed to just intentions to leave. Other studies examined here utilize data on specific subgroups of the teaching population or from particular geographic regions, however, and as such their findings cannot be generalized.
to teachers as a whole (Achinstein, Ogawa, Sexton, & Freitas, 2010; Borman & Dowling, 2008). Nevertheless, these studies provide insight into how engagement and retention might be influenced by these potentially confounding variables.

**Demographic Characteristics of Teachers**

The demographic characteristics of teachers are frequently included as potentially confounding variables in other studies, and are used to provide descriptive statistics as well. According to the existing research, there is reason to believe that age, teaching experience, eligibility for retirement, gender, race/ethnicity, teaching certification, full-time status, and satisfaction with salary could influence teacher engagement and retention (see Table 2-2).

**Table 2-2. Research on Demographic Characteristics of Teachers on Burnout/Engagement and Attrition/Retention**

<table>
<thead>
<tr>
<th>Characteristics and Findings</th>
<th>Relevant Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age and Teaching Experience</strong></td>
<td></td>
</tr>
<tr>
<td>Younger, Less Experienced More Burned Out</td>
<td>Byrne (1991); Kahn, Schneider, Jenkins-Henkelman, &amp; Moyle (2006); Lau, Yuen, &amp; Chan (2005); Russell, Altmaier, &amp; Van Velzen (1987)</td>
</tr>
<tr>
<td>Older, More Experienced More Burned Out</td>
<td>DeHeus &amp; Diekstra (1999); Friedman (1991)</td>
</tr>
<tr>
<td>New Teachers More Likely to Leave</td>
<td>Hanushek, Kain, &amp; Rivkin (2001)</td>
</tr>
</tbody>
</table>

**Gender**


(continued)
<table>
<thead>
<tr>
<th>Characteristics and Findings</th>
<th>Relevant Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men More Cynical</td>
<td>DeHeus &amp; Diekstra (1999); Lau, Yuen, &amp; Chan (2005); Mearns &amp; Cain (2003); Russell, Altmaier, &amp; Van Velzen (1987)</td>
</tr>
<tr>
<td>No Effect on Engagement</td>
<td>Hakanen, Bakker, &amp; Schaufeli (2006); Kahn, Schneider, Jenkins-Henkelman, &amp; Moyle (2006)</td>
</tr>
<tr>
<td>No Effect on Attrition</td>
<td>Henke, Chen, &amp; Geis (2000)</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
</tr>
<tr>
<td>Minority Teachers Less Satisfied</td>
<td>Liu &amp; Ramsey (2008)</td>
</tr>
<tr>
<td>White Teachers More Likely to Leave</td>
<td>Borman &amp; Dowling (2008); Guarino, Santibanez, &amp; Daley (2006); Hancock &amp; Scherff (2010)</td>
</tr>
<tr>
<td>No Effect on Attrition</td>
<td>Henke, Chen, &amp; Geis (2000)</td>
</tr>
<tr>
<td>Teaching Certificate</td>
<td></td>
</tr>
<tr>
<td>Full Time Status</td>
<td></td>
</tr>
<tr>
<td>Part Time Teachers More Likely to Leave</td>
<td>Keigher (2010)</td>
</tr>
<tr>
<td>Satisfaction with Salary</td>
<td></td>
</tr>
<tr>
<td>Important, But Not Most Important for Engagement</td>
<td>Cohn &amp; Kottkamp (1993); Liu &amp; Ramsey (2008); Lortie (1975)</td>
</tr>
<tr>
<td>Important, But Not Most Important for Retention</td>
<td>Hanushek, Kain, &amp; Rivkin (2001); Henke, Chen, &amp; Geis (2000); Scholastic &amp; Gates (2010)</td>
</tr>
</tbody>
</table>

**Age, Teaching Experience, and Retirement Eligibility**

The age, teaching experience, and eligibility for retirement of teachers are all factors in whether or not they remain engaged with the profession, and also somewhat intertwined as age itself is often correlated with how many years of teaching experience teachers have, or how soon they will be eligible for retirement. Several studies found that teachers who are younger and/or
have less teaching experience are more prone to burnout on at least one of the three subscales, but most commonly emotional exhaustion (Byrne, 1991; Kahn, Schneider, Jenkins-Henkelman, & Moyle, 2006; Lau, Yuen, & Chen, 2005; Russell, Altmaier, & Van Velzen, 1987). Other studies found that burnout was more pronounced the older the teachers and the more teaching experience they had (DeHeus & Diekstra, 1999; Friedman, 1991). Still other studies found no influence on burnout of either age or teaching experience (Grayson & Alvarez, 2008; Hakanen, Bakker, & Schaufeli, 2006; McCarthy, Lambert, O'Donnell, & Melendres, 2009; Ozer & Beycioglu, 2010).

The teacher attrition/retention research suggests that age and teaching experience actually have a U-shaped effect, in that younger and newer teachers are consistently more likely to leave teaching than older, more experienced teachers—that is, until the older teachers reach retirement age, at which point they are just as likely to leave as the newer teachers (Borman & Dowling, 2008; Guarino, Santibanez, & Daley, 2006). A study involving the entire population of Texas public school teachers (over 375,000) also found that teachers with less than three years of teaching experience were twice as likely to leave the Texas public schools as teachers in the prime of their career with 11 to 30 years experience (Hanushek et al., 2001).

**Gender and Race/Ethnicity**

The evidence regarding the effect of gender on teacher burnout varies depending on the MBI subscale being examined. Four studies reviewed here found that female teachers had higher levels of emotional exhaustion than male teachers (Byrne, 1991; Grayson & Alvarez, 2008; Lau et al., 2005; Ozer & Beycioglu, 2010), but one study in Greece found higher levels of emotional exhaustion among male teachers (Bibou-Nakou, Stogiannidou, & Kiosseoglou, 1999). On the cynicism subscale, the majority of studies find that male teachers are more likely to be
depersonalized (DeHeus & Diekstra, 1999; Lau et al., 2005; Mearns & Cain, 2003; Russell et al., 1987). Another study found that in low-burnout schools, on average 15% more females were employed than in high-burnout schools (Friedman, 1991), while two studies found no influence of gender on burnout at all (Hakanen et al., 2006; Kahn et al., 2006).

A comprehensive review of 46 peer-reviewed empirical studies by Guarino, Santibanez, and Daley (2006) on teacher recruitment and retention found that women are slightly more likely to leave teaching than men. Borman and Dowling (2008), who conducted a meta-analysis of 34 quantitative studies on teacher attrition, agreed: for the 19 studies in their review that looked at gender, they calculated that overall women were 1.3 times more likely to leave teaching than men.

In terms of the race/ethnicity of the teacher, one study (Liu & Ramsey, 2008) analyzed the 2000-2001 Teacher Follow-Up Survey data on those who voluntarily left teaching before becoming eligible for retirement and their satisfaction with teaching. In general, they found that minority teachers were actually less satisfied than White teachers on all but one aspect of teaching measured by their model.

In the attrition/retention research the evidence leans towards White teachers being more likely to leave the field or to be classified as a high-attrition risks than teachers of color. Guarino, Santibanez, and Daley (2006) found that White teachers are more likely to leave than non-White teachers. Borman and Dowling (2008) also calculated that for White teachers, the odds are 1.36 times more likely that they would leave teaching than non-White teachers. A study of the 4,520 full-time English/Language Arts teachers who had participated in the 2003-2004 Schools and Staffing Survey found that White teachers were 45% more likely to be classified as a high-

---

2 The terms “minority” or “non-White” are typically used in the United States as a collective reference to any of the following races/ethnicities: African American or Black; American Indian or Alaskan Native; Asian; Hispanic, Chicano, Mexican American, or Latino; and Pacific Islander or Filipino.
attrition risk than non-White teachers (Hancock & Scherff, 2010). In a longitudinal study of college graduates who had entered into teaching but left by the time they were re-surveyed four years later, however, neither gender nor race/ethnicity were associated with new teachers leaving the profession (Henke, Chen, & Geis, 2000).

**Teaching Certification and Full Time Status**

While I could not locate any studies that looked at the effect of teaching certification or full time status on burnout and engagement, the retention research indicates that teachers who do not hold certificates are considerably more likely to leave the field. Borman & Dowling (2008) reviewed three studies that looked at rates of teacher attrition by whether or not respondents held a teaching certificate, and they calculated the overall odds of leaving the profession as being 2.63 times greater for teachers without a teaching certificate as compared to teachers who did hold a teaching certificate. The data from the two most recent Teacher Follow-Up Surveys in 2004-2005 and 2008-2009 (Keigher, 2010; Marvel, Lyter, Peltola, Strizek, & Morton, 2007) confirm this, with 85% of the teachers who hold regular teaching certificates staying in teaching, versus only 67% of the teachers without a teaching certificate. So does the study of college graduates who entered the teaching profession and then were resurveyed four years later: only 14 percent of those holding teaching certificates had left the field, compared to 49 percent of those who were not certified to teach (Henke et al., 2000).

There is also some evidence indicating that part-time teachers leave the profession at a greater rate than those teaching full-time. In the most recent Teacher Follow-Up Survey from 2008-2009, 15.2% of the teachers who had been in part-time positions the previous year had left teaching, as opposed to 7.3% of the teachers with full-time positions (Keigher, 2010).
Satisfaction With Salary

Liu and Ramsey (2008), in an analysis of the 2000-2001 Teacher Follow-Up Survey data, found that satisfaction with salary and other forms of compensation was not correlated with satisfaction with work conditions. Both Lortie (1975) and Cohn & Kottkamp (1993) found that while salary mattered to teachers in terms of their satisfaction, it was most important only to a very small percentage.

The attrition/retention research confirms this finding, in that while dissatisfaction with salary is often associated with teacher attrition, other factors such as student characteristics or administrative support are more strongly related or viewed as more important. Hanushek, Kain, and Rivkin (2001) found in their study of Texas public school teachers that characteristics associated with students were more strongly correlated with teacher turnover than salary, and salary was a larger factor in whether or not teachers moved schools rather than left teaching altogether. A survey of over 40,000 United States teachers by Scholastic and Gates (2010) revealed that teachers felt that while salary was important when it came to retaining good teachers, non-monetary compensation (such as supportive leadership or time to collaborate with other teachers) was even more important. Henke and colleagues (2000) found that 10% of the new graduates in their study who had gone into teaching and then left did so because they were dissatisfied with salary and benefits.

School and Student Characteristics

Certain characteristics of schools and students appear to influence teachers’ engagement with and decisions about whether or not to stay in the profession, such as grade level, location, total number of students, student-teacher ratio, public or private sector, and the socioeconomic
class (as measured by free and reduced lunch eligibility) and race/ethnicity of students (see Table 2-3).

### Table 2-3. Research on School and Student Characteristics and Teacher Attrition/Retention and Burnout/Engagement

<table>
<thead>
<tr>
<th>Characteristics and Findings</th>
<th>Relevant Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School Level</strong></td>
<td></td>
</tr>
<tr>
<td>No Effect on Engagement</td>
<td>Hakanen, Bakker, &amp; Schaufeli (2006)</td>
</tr>
<tr>
<td><strong>School Locale</strong></td>
<td></td>
</tr>
<tr>
<td>Teachers More Likely to Leave Urban Schools</td>
<td>Borman &amp; Dowling (2008); Hanushek, Kain, &amp; Rivkin (2001)</td>
</tr>
<tr>
<td><strong>School Size and Student/Teacher Ratio</strong></td>
<td></td>
</tr>
<tr>
<td>Teachers With Larger Classes More Exhausted</td>
<td>Russell, Altmaier, &amp; Van Velzen (1987)</td>
</tr>
<tr>
<td>Teachers More Likely to Leave Small Schools</td>
<td>Borman &amp; Dowling (2008); Ingersoll (2001); Keigher (2010); Luekens, Lyter, &amp; Fox (2004); Marvel, Lyter, Peltola, Strizek, &amp; Morton (2007)</td>
</tr>
<tr>
<td><strong>Public or Private Sector</strong></td>
<td></td>
</tr>
<tr>
<td>Teachers More Likely to Leave Private Schools</td>
<td>Borman &amp; Dowling (2008); Ingersoll (2001); Keigher (2010); Luekens, Lyter, &amp; Fox (2004); Marvel, Lyter, Peltola, Strizek, &amp; Morton (2007)</td>
</tr>
<tr>
<td><strong>Free or Reduced Lunch (FRL)</strong></td>
<td></td>
</tr>
<tr>
<td>Teachers More Likely to Leave Schools w/FRL Students</td>
<td>Borman &amp; Dowling (2008)</td>
</tr>
</tbody>
</table>
Table 2-3 (Continued)

<table>
<thead>
<tr>
<th>Characteristics and Findings</th>
<th>Relevant Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-White Students</td>
<td>Borman &amp; Dowling (2008); Hanushek, Kain, &amp; Rivkin (2001)</td>
</tr>
<tr>
<td>Teachers More Likely to Leave Schools w/Non-White Students</td>
<td></td>
</tr>
<tr>
<td>Non-White Teachers More Likely to Stay at Schools w/Non-White Students</td>
<td>Achinstein, Ogawa, Sexton, &amp; Freitas (2010); Hanushek, Kain, &amp; Rivkin (2001)</td>
</tr>
</tbody>
</table>

**Grade Level Taught**

In terms of the burnout research there is little recent work available regarding grade level, especially conducted in the United States. A study of K-12 teachers in Iowa found that secondary school teachers reported greater levels of cynicism, while elementary school teachers scored higher on professional efficacy (Russell et al., 1987). A study in the United Kingdom, although it did not use the MBI as an instrument, did find that primary school teachers had both higher commitment levels and higher feelings of professional efficacy than secondary school teachers (Day et al., 2006). A study of over 2,000 teachers at elementary, secondary, and vocational schools in Finland, however, did not find any differences on the MBI based on the grade level taught (Hakanen et al., 2006).

When the effects of 14 different studies are combined, teachers who teach in elementary schools are slightly more likely to leave teaching than secondary school teachers, and this difference is statistically significant (Borman & Dowling, 2008). A similar pattern develops in the most recent Teacher Follow-Up Survey data, with greater percentages of elementary school teachers leaving the profession than secondary school teachers (13.5% compared to 9.4% in 2004-2005, and 14.6% compared to 12.2% in 2008-2009) (Keigher, 2010; Marvel et al., 2007).
School Locale, Size, and Public/Private Sector

Little research was located connecting burnout and engagement with these school characteristics. One study on burnout in teachers did not find any significant effects regarding school size, but did find that teachers with larger classes reported higher levels of emotional exhaustion (Russell et al., 1987). There is, however, research on these characteristics and their effects on teacher attrition and retention.

With regards to where schools are located, Borman & Dowling (2008) analyzed six studies and found a small but significant difference indicating that teachers at urban and suburban schools are slightly more likely (1.13 times) to leave teaching than teachers at rural schools. Hanushek, Kain, and Rivkin (2001), in their study of Texas public school teachers, found that new teachers were 3.5 percentage points more likely to leave teaching if they had been teaching at urban schools than were their suburban counterparts.

School size may also affect teacher attrition rates, with the evidence showing that teachers at smaller schools are actually more likely to exit the profession (Borman & Dowling, 2008; Ingersoll, 2001; Keigher, 2010; Luekens et al., 2004; Marvel et al., 2007). The data on school size may be confounded by whether or not the school is in the public or private sector. Several studies have found that teachers at private schools are consistently more likely to leave teaching than those at public schools (Borman & Dowling, 2008; Ingersoll, 2001; Keigher, 2010; Luekens et al., 2004; Marvel et al., 2007). More than three-fourths of private schools, however, are small in size (less than 300 students), so it is possible that teachers are more likely to leave smaller schools not because they are smaller, but because they are more likely to be private (Ingersoll, 2001).
Free and Reduced Lunch Eligibility

One commonly used measure of student socioeconomic class at a school is the percentage of students that qualify for the federal free or reduced lunch programs. Eligibility for free or reduced lunch (FRL) is calculated based on family household income; students qualify for free lunch if their family income is less than 130% of federal poverty guidelines ($18,941 for a family of two in 2009-2010) or for a reduced price lunch if their family income is less than 185% of federal poverty guidelines ($26,955 for a family of two in 2009-2010) (USDA Food and Nutrition Service, March 27, 2009). Students can also directly qualify for free or reduced school lunch if they are receiving certain federal benefits such as the Supplemental Nutrition Assistance Program (USDA Food and Nutrition Service, July 21, 2010).

I could not find any burnout/engagement research on this topic that has been conducted in the United States, but a study in England of teachers’ commitment and effectiveness found that for younger teachers, those at schools with lower populations of students eligible for Free Student Meals (FSM) showed higher levels of commitment. However, across all phases of the teaching career, it was actually teachers at the schools with the highest number of students eligible for FSM who showed more sustained commitment and increased motivation (Day et al., 2006).

In the attrition/retention research, Borman & Dowling (2008) found in a meta-analysis of eight studies using a continuous measure of the percentage of students qualifying for FRL that as the percentage of students went up, the odds of teachers leaving increased. Three other studies in their review that classified schools as “low” socioeconomic status (more than 50% of students qualifying for FRL) also found that the odds of teachers leaving were higher in the “low” socioeconomic status schools.
Racial Distribution of Students

I was unable to find research related to this topic in the burnout/engagement field, but according to the available attrition/retention research the odds of teachers leaving schools with larger minority student populations are higher. Borman & Dowling’s (2008) meta-analysis of the effects of five studies found that teachers were up to three times more likely to leave predominantly minority schools than schools in which the majority of the student population was White. Seven more studies that measured the percentage of minority students continuously also found higher odds of attrition as the percentage increased. Hanushek, Kain, and Rivkin’s (2001) study of public schools and teachers in Texas also found a similar pattern, in which predominantly Black or Hispanic schools had higher rates of teacher attrition than non-Black or non-Hispanic schools. They also found strong evidence that the teachers in their study who moved to a different teaching position systematically moved to districts with higher percentages of students matching their own race/ethnicity. A review of the research on the attrition rates of minority teachers found that minority teachers were not only more likely to teach at urban schools with high proportions of minority students and students on free and reduced lunch, but also more likely to stay at these schools than non-minority teachers (Achinstein et al., 2010).

Looking back on the research on teacher burnout/engagement and attrition/retention that has been reviewed here, there is fairly consistent evidence that certain background characteristics of teachers, schools, and students are related to whether or not teachers remain engaged with, and ultimately stay in the profession. There is not always agreement on the direction of effects, but clearly correlations do exist. Since characteristics of teachers, schools, and students may be just as likely to affect engagement and retention as participation in a TPD program, it is important to include as many of these potentially confounding variables in the study design as possible.
Summary of Chapter

This chapter began by putting forth the definition of transformative professional development used in this study, and introduced Courage to Teach, the TPD program that is this study’s focus. A conceptual framework for studying effective professional development was discussed, applied to CTT, and adapted for use with TPD programs. Studies and evaluations specific to CTT were analyzed for evidence that supports the hypothesis that participation in CTT has a positive effect on subsequent teacher engagement and retention, and to see if any gaps exist that might need to be filled. Finally, a set of teacher, school, and student characteristics that could be used both to describe participants in TPD, and that might also confound the results of the study were introduced, along with the relevant literature. In the next chapter, I will discuss the design of the study, sample selection, the survey instrument, and data collection.
CHAPTER 3. STUDY DESIGN AND DATA COLLECTION

This chapter will discuss the study design, sampling procedures, and survey instrument with regards to the main research questions of the study. The first goal of this research study is to describe the teachers who choose to participate in Courage to Teach and how they are similar to and different from those who participate in the National Writing Project and teachers in general. The second research question encompasses my main hypothesis, which is that participation in a transformative professional development program such as CTT will affect subsequent teacher engagement and retention. My third research question asks about the respondents’ perceived benefits of participation regarding various aspects of teaching.

Study Design

The ideal way to answer these research questions, particularly when the goal is to estimate causal effects, would be to design a study in which a large representative sample of teachers is chosen from the entire population of teachers, and then each teacher is randomly assigned to one of two treatment conditions: participation in Courage to Teach, or not. Upon completion of the program, both groups could then be compared in terms of their engagement with teaching, and if there are mean differences between the groups we can support the causal inference that participation in the treatment has an effect on the outcome. In other words, because of random assignment we could confidently claim that participation in CTT affects engagement with teaching, and because of random sampling we can generalize this claim to the entire population of teachers. It is critical in this scenario that the subjects are both randomly sampled and randomly assigned to the treatment conditions, and the sample size must also be sufficiently large (Ho et al., 2007). Of course, in the real world, it is extremely difficult to meet all of these conditions. In most laboratories or research settings, randomized experiments have
random assignment but not random sampling, and often the number of subjects is relatively small. And especially in the social sciences, issues such as expense, time, and ethical considerations make it very difficult to perform even a randomized experiment (Ho et al., 2007; Rubin, 2007).

My limited resources make a randomized experiment infeasible for this study. It is, however, possible for me to conduct a quasi-experimental study (also known as an observational study) and this is what I have chosen to do. Like a randomized experiment, an observational study has a treatment and a control group, but the subjects in each group are not randomly assigned. Observational studies are very common in education research, where it is often quite difficult to randomly assign subjects (e.g., students, teachers) to treatment and control groups (e.g., classes, programs, schools.) The simplest form of an observational study for my research question would be to compare a group of teachers who have chosen to participate in CTT with a group of teachers who have not participated in any professional development with respect to the outcomes of interest. Unfortunately, from the outset the types of teachers who choose to participate in a program like CTT no doubt have different characteristics from those who choose not to participate, especially in terms of motivation (Wayne et al., 2008). When there are differences like this that exist before a program begins, and if these differences are also associated with the outcome of interest, any comparison of mean outcomes among the two groups will be confounded by selection bias (Caliendo & Kopeinig, 2008; Campbell & Stanley, 1963; Shadish, Cook, & Campbell, 2002). In other words, there will be no way to know if any observed differences in the outcomes are due to the treatment or to characteristics of the groups themselves which exist even in the absence of treatment. A method is needed to deal with the issue of selection bias and to ensure that the two groups in the study are as similar as possible,
regardless of the group they have self-selected into. For this study, this is a two-step process: (a) selecting an appropriate control group, and (b) using a technique known as propensity score matching to obtain the most comparable samples possible (propensity score matching is discussed in detail in Chapter Five).

**Appropriate Control Group and the Counterfactual**

First, it is important to find a control group that is as close of a match as possible for the CTT teachers. For my primary research question, I want to know if teachers who participate in CTT are more engaged than if they had not participated in CTT. If I could measure each teacher’s engagement in both of these scenarios, then I could take each teacher’s scores, subtract the non-CTT score from the CTT score, and I would know the individual effect that CTT has on engagement for each teacher. I could then proceed to average all the scores in each scenario together, subtract one mean from the other, and I would be able to summarize with a single number the *average causal effect* that CTT has on engagement.

The problem is that I cannot measure each teacher’s engagement in both of these situations; I can only measure it in one. Two potential outcomes for each teacher exist; the one that I cannot observe is known as the *counterfactual*. In order to obtain an estimate for this potential outcome that I cannot observe, I use a control group. The control group’s scores on engagement essentially act as a proxy for the scores that the treatment group *would have received* (i.e., the counterfactual) if they had not participated in CTT, so it is important that the control group be as similar as possible to the treatment group to minimize bias. Also, rather than comparing individual teachers to each other, I am comparing the means of the two groups: the *average causal effect*. However, this is not the *actual* average causal effect, as I cannot observe
it, but rather an estimated average causal effect (Briggs & Wiley, 2008; Caliendo & Kopeinig, 2008; Dawid, 2000; Winship & Morgan, 1999).

As there is reason to believe that teachers who choose to participate in voluntary, long-term, time-intensive PD programs look different from teachers who do not, a control group consisting of teachers who participate in no PD at all is probably not the best choice. This would have the potential of overestimating the effect of CTT on engagement. The ideal control group would be teachers who are just as motivated as those who participate in CTT, yet do not participate in any professional development. As this ideal control group was not readily available, a control group consisting of teachers who also choose to participate in a similarly structured PD program is a good alternative, even though it might underestimate the effects of CTT on engagement. Also, comparing CTT to a well-known, nationally recognized PD program can provide useful information about CTT even if no effects on engagement are found.

In this study, the National Writing Project (NWP) fills this role. The National Writing Project possesses Desimone’s five features of an effective professional development program (see Chapter Two), is one of the largest nationwide PD programs in existence, and has been described as “arguably the most successful teacher network in the United States” (Lieberman & Wood, 2002, p. 40). Like CTT, participation in NWP is also a voluntary, time-intensive, long-term commitment. Teacher-consultants of the NWP participate in a 4- to 5-week daily summer institute during which they share their best teaching practices with each other, read research and other professional literature, and engage in writing. The focus of the institutes is on improving the teaching and learning of writing, and a side effect for many teacher-consultants is a strengthening of their own identities as writers. In addition, teacher-consultants are encouraged and expected to continue participation with their local Writing Project after the end of the actual
summer institute in a variety of ways (Blau, 1999; Gray, 2000; National Writing Project, 2006b). It seems reasonable to expect that teachers who choose to participate in a 4- to 5-week intensive summer program with follow-up are likely to resemble the CTT participants on a number of characteristics, especially motivation. Because both CTT and NWP participants have self-selected into similarly structured professional development programs, selection bias is decreased to some degree, and I should have increased my chances of accurately capturing the counterfactual outcome. Before continuing on to a discussion of how I obtained my samples, I will first provide some background on the National Writing Project as well as a brief review of the research that has been conducted on the program.

The History, Mission, and Structure of the National Writing Project

In the summer of 1974, James Gray attempted something quite different for the times—a summer writing workshop for K-12 teachers in which the teachers participating in the workshop would be the experts (Blau, 1999; Gray, 2000). Gray believed that successful teachers were an extremely valuable resource, and their knowledge and experience should be shared outside their own classrooms. It was clear that teachers in this first workshop were eager to learn from one another and that the idea had a lot of promise. In 1976 Gray and his colleagues won a grant from the National Endowment for the Humanities, which supported what was now known as the Bay Area Writing Project, and helped spread the model across California and into other states (Gray, 2000).

Today, the National Writing Project has more than 200 sites located in all 50 states as well as in Washington D.C., Puerto Rico, and the U.S. Virgin Islands. Funding, as of the early
nineties, comes in large part from the federal government along with matching funds from corporations, foundations, universities, and K-12 schools (Gray, 2000; National Writing Project, 2005, 2008). In a typical calendar year, over 135,000 teachers take part in more than 7,000 programs associated with a National Writing Project site, and more than 12,000 teacher-leaders conduct workshops or presentations in their own schools (National Writing Project, 2005; Stokes & St. John, 2008).

All National Writing Project sites run summer institutes, generally four to five weeks, at which a group of teachers who teach a variety of different levels and subjects gather together. These teachers’ interactions during the institute focus on two main activities: demonstrating their own successful teaching ideas to each other, and becoming “students” themselves as they work on their own writing projects. They also study relevant research and theory in their fields (Blau, 1999; National Writing Project, 2006b).

After the summer institute has been completed, the teachers go back to their own schools and districts. But, rather than losing touch, they stay connected with their writing project site in a variety of ways. Many will lead workshops or presentations at their own area schools. Other teachers form book clubs, teacher research or writing groups, or attend advanced summer institutes or meetings for NWP alumni (Blau, 1999; Gray, 2000; National Writing Project, 2006b).

The stated goals of the National Writing Project are four-fold:

1. To improve student writing and learning in kindergarten through university classrooms,

2. To extend the uses of writing in all disciplines,

---

3 On March 2, 2011, President Obama signed a bill that eliminates direct federal funding for the National Writing Project, according to an NWP press release (www.nwp.org/cs/public/print/resource/3507).
3. To provide schools, colleges, and universities with an effective professional development model, and

4. To identify, celebrate, and enhance the professional role of successful classroom teachers (National Writing Project, 2005, p. 2).

The overarching goal of the National Writing Project is to improve the teaching and learning of writing in all disciplines across all age groups.

**Existing Research on the National Writing Project**

Evaluations of the National Writing Project have been conducted since the late 1990s by Inverness Associates. Each participant is asked to complete a short survey at the completion of the summer institute, and again at the end of the following school year. Response rates for these surveys from the years 2000 to 2006 were 88% for the initial survey (19,536 respondents), and 29% overall (6,205 respondents) for the follow-up survey. On the initial survey, summer institute participants consistently indicate very high satisfaction (over 95% every year) with the quality of the overall experience, as well as its contribution to their understanding of the teaching of writing, their own classroom practices, and expectations that their participation will result in better writing skills for their students. In the follow-up surveys approximately eight months after the completion of the summer institute, respondents also agree that their participation has given them concrete teaching strategies (96%), helped them stay more up-to-date on the latest research and practice (95%), and inspired them to seek further training and information (90%), among other things. Approximately 80% or more of the follow-up respondents also agree that their students wrote more and longer pieces, better understood the value of writing and the qualities of good writing, and enjoyed writing more than their students had prior to their participation in the summer institute (Stokes & St. John, 2008).
An internally conducted research project, known as the National Writing Project Legacy Study, surveyed all summer institute participants from 1974 to 1994 about their professional histories, receiving more than 2,000 responses (16.7%) by 2007. The study found that only 2% leave the field of education before retirement, and 70% stay in the classroom for the entirety of their careers. Out of those who have retired, 72% continue to volunteer or work in education even after their retirement, and out of those who leave the classroom, 83% move to leadership or administrative positions at the school level (LeMahieu, Fessahaie, Yang, Brown, & Friedrich, 2007; LeMahieu, Smith, & Hutchinson, 2008).

The National Writing Project is also conducting research on the question of whether participation in NWP summer institutes results in increased student learning. Sixteen sites in seven states employed pre- and post-assessments of student writing skills for students whose teachers participated in NWP and for comparison classes of students whose teachers did not participate. In all sixteen studies, the students whose teachers had participated in NWP showed more growth than the comparison students, and the results favored the NWP students in assessments of overall writing quality (National Writing Project, 2010).

Other research on the NWP has focused on the program as an example of an educational reform network or professional learning community, particularly that of Lieberman and Wood, who conducted an in-depth study of two summer institute sites, one urban and one rural, in which they observed the institutes and interviewed participants. They determined that there are social practices and norms that are formed in the summer institutes, and these norms help to create networks, which in turn support participants in learning to become better teachers of writing. Through the activities of teaching each other, taking the time to write and share their writing, and engaging in research, participants learn to place a high priority on professional
relationships with colleagues and students. Lieberman and Wood make a point of saying that these relationships are not for the purpose of “feel-good” interactions, but to establish an intellectual context for learning (Lieberman, 2000; Lieberman & Wood, 2003). This speaks to the NWP’s emphasis on the professional aspect of teaching and relationships, and a tendency in our culture to privilege the cognitive and rational over the personal and emotional (Zembylas, 2003).

There is also anecdotal evidence that some participants find the experience to be renewing and energizing. Participants have made comments along the lines of being “jazzed” or “exhilarated,” and have said that being a part of a professional community keeps them “caring and enthusiastic over the years” along with providing excitement and stimulation regarding teaching (Lieberman & Wood, 2001, 2003).

Some participants in summer institutes even report that it is a transformational experience for them, in that the experience “strongly influences how teachers think about their own professional roles, changes what they do in classrooms, and affects how and what students learn” (Lieberman & Wood, 2003, p. 99). Ann Whitney (2008), drawing on a case study of seven NWP participants, argues that the act of writing itself is transformative, and that some of her subjects experienced transformative learning—the ability to reframe an existing situation in a new way—as a result of their participation in the summer institute.

The existing research on the National Writing Project highlights similarities and differences between it and Courage to Teach. Both programs receive very high ratings from participants, and there is at least anecdotal evidence that they both promote engagement and retention. While NWP is not designed as a TPD program, some participants view it as a transformative experience. Both CTT and NWP have a focus on relationships, but in NWP the
focus is primarily on professional relationships for the purposes of enhancing the teaching of writing, although obviously for some participants these relationships have a personal dimension as well. In Courage to Teach, there is a very strong emphasis on relationships and community, but it differs from NWP in that it focuses on the connection between the personal and the professional. And of course, the primary difference between the two programs is that the NWP focuses on a specific content area, whereas CTT does not.

The similarities make it clear that the NWP is a well-matched control group for CTT on a number of characteristics. In fact, the bar has been set rather high for CTT in terms of whether it has an effect on engagement that is equal to or above that of NWP. Many of the characteristics of CTT that are likely to lead to higher engagement, such as the development of community, also exist in NWP. The question that remains is whether or not the emphasis on the self and on personal aspects of relationships found in CTT results in a positive effect on engagement relative to the emphasis on writing and on professional relationships that is found in NWP.

**Sample Selection**

Now that the two PD programs that are the focus of this study have been identified, I will discuss how I obtained my sample of respondents from each program. Facilitators of CTT programs are trained and supported by the Center for Courage and Renewal (CCR), which is located in Seattle, Washington. According to the Director of the CCR, an estimated 30,000 people have participated in programs associated with the Center over the past 15 years, and approximately 3,000 of those have taken part in Courage to Teach retreat series of at least four retreats or more (Chadsey, 2010). However, there is no central office or database of CTT alumni; records are kept by the retreat facilitators themselves. With the help of the assistant director at CCR, all of the CTT facilitators in the country for which the CCR had contact information were
identified. In essence, an attempt was made to invite the entire population of CTT alumni to participate in the research study; 24 distinct CTT programs in 18 states were identified at this stage (see Figure 3-1).

The next step in the process was to secure a sample of NWP alumni. First of all, the “population” approach taken with the CTT alumni could not be used as the number of NWP alumni is vastly larger, with an average of 3,000 summer institute participants per year, or potentially as many as 90,000 since 1974. In fact, an average of 135,000 teachers per year participate in an NWP program or workshop, but for the purposes of this study, it is only those teachers who take part in a summer institute who are of interest (National Writing Project, 2005, 2006a; St. John & Stokes, 2008). Because of the lack of centralized Courage to Teach data, little was known about the CTT retreat program sites other than the state in which they had taken place, and in some cases, the closest large city or general region of the retreat program. Using this information, and with the help of the Director of Research and Evaluation at the NWP, a sample of 24 NWP sites in the same 18 states was chosen to match the CTT sites based on geography. CTT and NWP programs were matched geographically in an attempt to increase the likelihood of obtaining respondents who are similar in regards to the demographics of their teaching situations (e.g., school locale, student racial/ethnic composition, and free and reduced lunch eligibility of students).

The NWP has been in existence since 1974, a good two decades before CTT held its first retreat series in 1994. NWP is also more geographically diverse than CTT, as it has sites in all 50 states. So that the NWP sample would be more representative of NWP sites in general (based on geography and age of site), 6 more sites were added to the NWP sample as “Round Two” sites. This resulted in a total NWP sample of 30 sites in 24 states.
Figure 3-1. Sample selection process for CTT and NWP.
Facilitators and site directors of both programs were then contacted, again through representatives from the national offices, and asked to forward the survey invitation to their alumni via e-mail (for an example of these e-mails, see Appendix B). The survey was designed to have three total contacts with alumni (the initial invitation and two follow-up reminders) which has been shown to be the most effective number of contacts regarding response rates for online surveys (Cook, Heath, & Thompson, 2000).

Ultimately, 21 CTT sites and 23 NWP sites forwarded the survey invitation on to their alumni, reaching approximately 1350 and 1500 alumni respectively. These numbers are based on the number of alumni each CTT facilitator or NWP site director reported sending the online survey invitation to, minus the number of individual e-mail addresses that “bounced back” or were no longer accurate. For both CTT and NWP, not all facilitators and site directors responded to e-mails, even after multiple attempts to contact them. There were also a few facilitators and site directors who did respond to the e-mail but were then unable to actually forward the survey invitation to their alumni.

Four CTT programs in Illinois, Oregon, and Wisconsin in the initial sample turned out to be defunct, too new to have alumni, or to be Courage to Lead programs instead of Courage to Teach programs. These four programs are marked as N/A on Table 3-1 below. Four other CTT programs in Arizona, Georgia, New York, and Virginia were added to the sample as “Round Two” sites. Although not on the original list of programs identified by the Center for Courage and Renewal, the facilitators of these programs responded to the initial invitation, indicated that they had conducted at least one retreat series, and forwarded the invitation to those alumni. As it turns out, three of these Round Two CTT sites matched geographically with three of the NWP Round Two sites.
Table 3-1 shows all the sites that were invited to participate in the study from both CTT and NWP. Shading indicates that both geographically matched sites forwarded the survey invitation to their alumni.

**Table 3-1. CTT and NWP Sample Sites**

<table>
<thead>
<tr>
<th>Round One Sites</th>
<th>NWP City</th>
<th>State</th>
<th>Sent*</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTT State</td>
<td>CTT City</td>
<td>Sent</td>
<td>NWP Site</td>
</tr>
<tr>
<td>1</td>
<td>California</td>
<td>Bay Area</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>California</td>
<td>San Rafael</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>Hawaii</td>
<td>Honolulu</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>Illinois</td>
<td>Winnetka</td>
<td>N/A</td>
</tr>
<tr>
<td>5</td>
<td>Maryland</td>
<td>Baltimore</td>
<td>Yes</td>
</tr>
<tr>
<td>6</td>
<td>Massachusetts</td>
<td>Boston</td>
<td>Yes</td>
</tr>
<tr>
<td>7</td>
<td>Michigan</td>
<td>Kalamazoo</td>
<td>Yes</td>
</tr>
<tr>
<td>8</td>
<td>Minnesota</td>
<td>Minneapolis</td>
<td>Yes</td>
</tr>
<tr>
<td>9</td>
<td>Mississippi</td>
<td>rural</td>
<td>No</td>
</tr>
<tr>
<td>10</td>
<td>Montana</td>
<td>rural</td>
<td>Yes</td>
</tr>
<tr>
<td>11</td>
<td>New Hampshire</td>
<td>unknown</td>
<td>Yes</td>
</tr>
<tr>
<td>12</td>
<td>N. Carolina</td>
<td>Charlotte</td>
<td>No</td>
</tr>
<tr>
<td>13</td>
<td>Oregon</td>
<td>Portland area</td>
<td>Yes</td>
</tr>
<tr>
<td>14</td>
<td>Oregon</td>
<td>Portland</td>
<td>N/A</td>
</tr>
<tr>
<td>15</td>
<td>Oregon</td>
<td>Bend area</td>
<td>N/A</td>
</tr>
<tr>
<td>16</td>
<td>S. Carolina</td>
<td>Myrtle Beach</td>
<td>Yes</td>
</tr>
<tr>
<td>17</td>
<td>South Dakota</td>
<td>unknown</td>
<td>Yes</td>
</tr>
<tr>
<td>18</td>
<td>Texas</td>
<td>Ft. Worth</td>
<td>Yes</td>
</tr>
<tr>
<td>19</td>
<td>Texas</td>
<td>Austin</td>
<td>Yes</td>
</tr>
<tr>
<td>20</td>
<td>Texas</td>
<td>San Antonio</td>
<td>No</td>
</tr>
<tr>
<td>21</td>
<td>Vermont</td>
<td>unknown</td>
<td>Yes</td>
</tr>
<tr>
<td>22</td>
<td>Washington</td>
<td>Seattle</td>
<td>Yes</td>
</tr>
<tr>
<td>23</td>
<td>Wisconsin</td>
<td>Madison</td>
<td>Yes</td>
</tr>
<tr>
<td>24</td>
<td>Wisconsin</td>
<td>Milwaukee</td>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Round Two Sites</th>
<th>City</th>
<th>State</th>
<th>Sent</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTT State</td>
<td>CTT City</td>
<td>Sent</td>
<td>NWP Site</td>
</tr>
<tr>
<td>1</td>
<td>Arizona</td>
<td>Tucson</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Georgia</td>
<td>Atlanta</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>New York</td>
<td>Rensselaer</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>No site in sample</td>
<td>N/A</td>
<td>NWP at Rutgers University</td>
</tr>
<tr>
<td>5</td>
<td>No site in sample</td>
<td>N/A</td>
<td>Red Mountain Writing Project</td>
</tr>
<tr>
<td>6</td>
<td>No site in sample</td>
<td>N/A</td>
<td>Northern Plains W.P.</td>
</tr>
<tr>
<td>7</td>
<td>Virginia</td>
<td>Free Union</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*“Sent” refers to the decision to send the survey invitation to alumni, something that was at the discretion of the facilitators and site directors of each program.*
Response Rates

Out of the more than 2800 alumni who were sent the survey invitation, almost 800 started the online survey, and over 650 of them completed it (see Table 3-2).

Table 3-2. Response Rates for CTT and NWP

<table>
<thead>
<tr>
<th></th>
<th>CTT</th>
<th>NWP</th>
</tr>
</thead>
<tbody>
<tr>
<td># of sites contacted</td>
<td>28</td>
<td>30</td>
</tr>
<tr>
<td># of sites that sent out invitation</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td>Total # of alumni sent invitation*</td>
<td>1349</td>
<td>1504</td>
</tr>
<tr>
<td># of surveys started</td>
<td>294</td>
<td>485</td>
</tr>
<tr>
<td>Started response rate**</td>
<td>21.8%</td>
<td>32.2%</td>
</tr>
<tr>
<td># of surveys completed</td>
<td>249</td>
<td>413</td>
</tr>
<tr>
<td>Completed response rate**</td>
<td>18.5%</td>
<td>27.5%</td>
</tr>
</tbody>
</table>

*Alumni whose e-mail addresses “bounced” are excluded from totals as they did not have the opportunity to respond (86 bounced for CTT; 72 bounced for NWP).

**In Arizona, the CTT invitation was sent to school addresses not accessed in the summer, and only one response was received. In Washington, the entire state’s CTT alumni were invited via a listserv, rather than by a personal e-mail from individual program directors, and the response rate was significantly lower than all remaining sites. If Arizona and Washington are excluded, CTT’s response rate is comparable to NWP’s response rate: the number of surveys started is 30.1%, and the number of surveys completed is 25.3%.

The response rates for CTT alumni were considerably lower than those of NWP alumni. This can be attributed to the following factors. In Arizona, the CTT invitation was sent to school addresses not accessed in the summer, and only one response out of 60 was received, the lowest by far. In Washington, the entire state’s CTT alumni were invited via a listserv, rather than by a personal e-mail from individual program directors as occurred in other states, and the response rate was significantly lower than all remaining sites: only 26 responses were received out of 398 invitations. If Arizona and Washington are excluded, CTT’s response rate becomes comparable to NWP’s response rate, with 30.1% starting the survey, and 25.3% completing it.

The question of what is an “acceptable” response rate is a thorny one, and often overlooks the issue of representativeness. Just as a high response rate does not guarantee that those who responded are representative of all who could have responded, a lower response rate
does not mean that those who did respond are not a good representation of the whole population (Krosnick, 1999). When the data is available, the best way to determine this is to analyze characteristics of the non-respondents to see if there are any systematic patterns that explain why they did not respond.

For both programs, there are reasons why the response rates may not have been higher. First, in most cases, facilitators were asked to send out the initial survey invitation and two follow-up reminders to encourage more participation. However, not all of the follow-up reminders were sent out, and in a few cases, none of the follow-up reminders were sent out at all, just the initial survey invitation was issued. Second, it is possible that some e-mail addresses were out of date and did not reach the intended recipient, even though the e-mail message itself did not “bounce back.” And third, the survey itself was administered near the end of the 2009 school year and into the summer, with some sites not issuing the original invitation until well into the summer. In these cases, it is possible that teachers were either not looking at their school e-mail or were not responding to e-mails because of summer vacation or other responsibilities.

Finally, people in the United States are becoming “over surveyed” and response rates to surveys in all forms have generally been dropping, perhaps because being part of a survey is no longer considered unique or unusual (Bickart & Schmittlein, 1999; Dey, 1997; Groves, Cialdini, & Couper, 1992; Krosnick, 1999). Two meta-analyses of response rates for internet surveys (Cook et al., 2000; Sheehan, 2001) found average mean response rates of 39.6% and 36.8% for studies conducted between 1994 and 2000, and 1986 and 2001 respectively, and both noted that response rates are falling. In fact, Sheehan’s meta-analysis showed a drop in response rates from 46% in 1995 to 24% in 2000. Given this, the response rate appears adequate, if not even on the high side, for an internet survey of this type.
Survey Instrument

The online survey used in this research study consists of pre-existing items and survey instruments as well as items that I created or adapted.

The Maslach Burnout Inventory

There are many possible ways to measure engagement with the profession of teaching, such as participation in educational opportunities beyond the classroom, or the taking on of additional responsibilities and leadership roles. The primary instrument used to measure engagement in this study, however, is the Maslach Burnout Inventory-Educators’ Survey (MBI-ES) (Maslach, Jackson, & Schwab, 1986). The creators of the MBI started by collecting interview, questionnaire, and observational data on the attitudes and feelings of burned-out human service professionals in a variety of fields, including teaching. In addition, they reviewed other established scales for content material. Based on this initial exploratory research, they hypothesized about the aspects that characterized the syndrome of burnout, and then designed the items on the MBI to measure these aspects (Maslach & Jackson, 1981).

After running a factor analysis, three subscales emerged: emotional exhaustion, cynicism (formerly depersonalization), and professional efficacy (formerly personal accomplishment). The three-factor, or subscale, model of burnout and engagement has been confirmed with numerous samples, including 469 teachers (Iwanicki & Schwab, 1981) and 710 teachers (Belcastro, Gold, & Hays, 1983). Confirmatory factor analyses by Lee and Ashforth (1993) also have confirmed the three-factor model, showing that emotional exhaustion and cynicism are “distinct but highly correlated,” and that professional efficacy remains independent of the other two subscales (Maslach et al., 1996).
The reader may recall the discussion in Chapter One of burnout and engagement and the vignettes of an engaged versus a burned out teacher. While the MBI was initially created to measure the concept of burnout, more recent research and writings by the authors of the tool encourage the use of the MBI to measure the concept of engagement, with the theory being that burnout and engagement are on opposite ends of a scale (Maslach, 2003; Maslach et al., 2001). High engagement with the profession of teaching is operationalized here as low emotional exhaustion, low cynicism, and high professional efficacy scores on the MBI-ES.

The original version of the MBI was designed for use with human service professionals, and contains 22 statements about personal feelings and attitudes. The MBI-ES is essentially the same as the original human services version, except that the word “recipient” has been replaced with “student” (Maslach et al., 1996). Respondents indicate how often they experience the feelings or attitudes depicted in the items using a 7-point scale ranging from “never” to “every day.” There are nine items on the emotional exhaustion subscale, all of which describe feelings of being exhausted by one’s work and emotionally overextended. The five items on the cynicism subscale describe feelings of distance towards the recipients of one’s care, or an impersonal or uncaring response. The eight items on the professional efficacy subscale, on the other hand, describe positive feelings of competence, effectiveness, and meaning regarding one’s work and the people that are the focus of that work (Maslach & Jackson, 1981; Maslach et al., 1996). For a sample of items\(^4\) from the MBI (from this point on, the MBI-ES will be referred to simply as the MBI), see Figure 3-2.

\(^4\) Due to copyright restrictions on the MBI, the only items that can be published are the sample items in Figure 3-2.
Directions: The purpose of this survey is to discover how educators view their jobs and the people with whom they work closely.

Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, write a "0" (zero) before the statement. If you have had this feeling, indicate how often you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way.

How Often: 0 Never 1 A few times a year or less 2 Once a month or less 3 A few times a month 4 Once a week 5 A few times a week 6 Every day

I. Emotional Exhaustion

I feel like I'm at the end of my rope.

II. Cynicism (Depersonalization)

I feel I treat some students as if they were impersonal objects.

III. Professional Efficacy (Personal Accomplishment)

I feel I'm positively influencing other people's lives through my work.

From the Maslach Burnout Inventory - Educators Survey by Christina Maslach, Susan E. Jackson, and Richard L. Schwab. Copyright 1986 by CPP, Inc. All rights reserved. Further reproduction is prohibited without the Publisher's consent.

Figure 3-2. Sample items from the Maslach Burnout Inventory-Educators Survey.

One thing to keep in mind when interpreting scores on the three subscales is that the emotional exhaustion and cynicism statements all represent negative feelings or attitudes, so a high score actually indicates burnout, while a low score indicates engagement. The professional efficacy subscale is the opposite: all of the statements are positive, so a high score is indicative of higher engagement, and a low score of burnout.

Reliability of the MBI

It is important to know that an instrument is reliably measuring what it is intended to measure. For example, if you weighed yourself several days in a row, you would expect your weight to not fluctuate too much; if the second day the scale reported that your weight was 15 lbs
higher than the previous day, and on the third day it said you weighed 10 lbs less, you would begin to suspect that you could not trust your scale to reliably measure your true weight (Thompson, 2003). The most commonly used reliability coefficient is Cronbach’s alpha, and what it tells you is how much of the variation you measure is “real” versus how much is “noise.” The higher the reliability, the more true variation you are detecting and the less noise. Reliability coefficients, however, tend to go up as the number of items on a scale increases, so a high reliability coefficient on a scale with 100 items may not actually be as good of a measure as a scale with 10 items and a lower reliability coefficient. Generally speaking, Cronbach’s alpha values of .70 and higher are considered acceptable (Field, 2005; Hogan, Benjamin, & Brezinski, 2000), though to a large extent this will depend on the intended use of the measure.

The following reliability coefficients were reported for the subscales of the MBI when they were originally created: emotional exhaustion (.90), cynicism (.79), and professional efficacy (.71) (Maslach et al., 1996). However, reliability cannot be established once and for all; each time a test is used the sample of respondents may differ and this may affect the reliability, so it must be measured for each study (Thompson, 2003; Wilkinson & the APA Task Force on Statistical Inference, 1999). As it turns out, the reliabilities estimated using Cronbach’s alpha for the data in this study are quite similar: emotional exhaustion is almost exactly the same (.91), cynicism is lower (.71), and professional efficacy is higher (.77).

The MBI is intended to measure an “enduring state,” but because of the time frame and nature of this study, it was not possible to conduct test-retest reliability analyses. However, previous analyses of test-retest reliability by the instrument’s creators have indicated high degrees of consistency within each subscale, with emotional exhaustion consistently having the
highest test-retest correlation (S. E. Jackson et al., 1986; Lee & Ashforth, 1993; Leiter, 1990; Leiter & Durup, 1996).

**Validity of the MBI**

Typically, the purpose of measuring something is so that we can make inferences or take actions based on the results we obtain. Along with reliability, it is important for an instrument to be valid: for the inferences and actions we base on it to be supported by the available empirical evidence and theoretical rationales (Messick, 1989). To continue with the above example, if you decided to use a bathroom scale to measure students’ IQ, and then placed students in advanced or remedial classes based on those results, you would obviously not have a valid instrument for that purpose.

The MBI’s validity was originally evaluated relative to several different criteria, including personal experience, dimensions of the job, and personal outcomes. For example, coworkers or spouses of those who had taken the MBI were asked to provide a behavioral evaluation of that person, including ratings of “how emotionally drained” the person was and what his or her mood was upon returning home. High correlations emerged between the respondent’s scores on the MBI, especially the emotional exhaustion and cynicism subscales, and what his or her coworker or spouse said in the evaluations (S. E. Jackson & Maslach, 1982; Maslach & Jackson, 1979). High burnout scores were found to be predictive of teachers’ desire to quit their jobs (S. E. Jackson et al., 1986), and the hypothesis that workers who dealt with higher numbers of clients would be closer to the burnout end of the scale was also confirmed (Maslach & Jackson, 1984).

For the current study, the only data available with which to attempt to establish the validity of the MBI by a similar method to that taken by Maslach and colleagues is that provided
by respondents to the survey questions. The following questions from the National Center for Education Statistics were included on the survey so that their responses could be triangulated with responses on the MBI: *I sometimes feel it is a waste of time to try to do my best as a teacher; If I could get a higher paying job I’d leave teaching as soon as possible; I don’t seem to have as much enthusiasm now as I did when I began teaching; and I think about staying home from school because I’m just too tired to go* (respondents could choose from “Strongly disagree,” “Somewhat disagree,” “Somewhat agree,” or “Strongly agree”). After combining these four items into a subscale, correlations were run between it and the three subscales of the MBI (see Table 3-3).

**Table 3-3. Correlations Between MBI Subscales and NCES Burnout/Engagement Scale**

<table>
<thead>
<tr>
<th>NCES Burnout/Engagement Subscale (n=410)</th>
<th>Emotional Exhaustion Subscale</th>
<th>Cynicism Subscale</th>
<th>Professional Efficacy Subscale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson's r</td>
<td>0.59</td>
<td>0.52</td>
<td>-0.45</td>
</tr>
</tbody>
</table>

Strong correlations emerged: the higher a respondent’s scores on the emotional exhaustion and cynicism subscales, the more likely they were to agree with the items on the NCES Burnout/Engagement Subscale, as would be expected. On the other hand, there was a strong negative correlation between the NCES Burnout/Engagement Subscale and the professional efficacy subscale of the MBI, also as expected: the stronger a respondent’s feelings of accomplishment about teaching, the less likely they were to agree that trying to do their best as a teacher was a waste of time, for example.

It also seems reasonable to expect that those who have scores indicative of higher engagement with teaching would be less likely to have applied for a job in an attempt to leave
teaching, would want to remain a teacher for as long as possible, and would want to become a teacher again if they could go back in time (see Table 3-4).

Table 3-4. Correlations between MBI Subscales and Applied Job, How Long Plan To Remain Teacher, and Become Teacher Again

<table>
<thead>
<tr>
<th>Item/Pearson's r</th>
<th>Emotional Exhaustion Subscale</th>
<th>Cynicism Subscale</th>
<th>Professional Efficacy Subscale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Job (n=417)</td>
<td>0.09</td>
<td>0.14</td>
<td>-0.04</td>
</tr>
<tr>
<td>How Long Remain Teacher (n=420)</td>
<td>0.19</td>
<td>0.19</td>
<td>-0.13</td>
</tr>
<tr>
<td>Become Teacher Again (n=417)</td>
<td>0.35</td>
<td>0.31</td>
<td>-0.26</td>
</tr>
</tbody>
</table>

The correlations here are very weak between the MBI subscales and the first two items, and only moderately strong for the third item. The correlations are at least all in the expected directions: positive for the emotional exhaustion and cynicism subscales, and negative for the professional efficacy subscale.

While no evidence was collected from this sample of teachers, the creators of the MBI did test for social desirability bias, as many of the statements on the MBI regard feelings that may not be socially acceptable in most professions. Social desirability bias occurs when respondents answer questions in a manner that they believe is socially desirable, even if this is not how they truly feel. A group of 40 graduate students in social welfare completed the human services version of the MBI (only different from the educator’s version in that “student” is replaced with “recipient”) and the Crowne-Marlowe Social Desirability Scale. The two sets of scores were uncorrelated, which suggests that reported burnout is not influenced by social desirability on the part of respondents (Maslach et al., 1996).
Normative Sample of the MBI

One advantage of using the MBI is that it is an instrument that has been administered to thousands of subjects across a wide variety of careers, including teachers. Most importantly, the responses of this study on the MBI can be compared to those of a normative sample of 4,163 K-12 teachers. A normative sample is a group within a population who takes a test and is intended to represent the larger population. This group’s scores are then used to create “norms” with which other test takers’ scores can be compared. The normative sample for the MBI is not chronologically matched (the majority of the studies used to create the sample are well over 15 years old), and very little is known about the demographics of the sample, so any comparisons must be taken under consideration. Nevertheless, it can provide a starting comparison tool for this study.

National Center for Education Statistics’ School and Staffing Surveys

There is also a set of items on the survey taken from the National Center for Education Statistics’ Schools and Staffing Survey (SASS) Teacher Questionnaire and from the Teacher Follow-Up Surveys (TFS). The set of surveys administered by this governmental agency is given to a nationally representative sample of teachers, principals, schools, and school districts and has been given since the mid-1980s, most recently in 2003-2004 and in 2007-2008 (National Center for Education Statistics, 2010). I included some items in my survey because they probed important demographic issues, and others were chosen specifically because of their overlap with concepts measured by the MBI. The responses to these items can provide a chronologically appropriate, nationally representative sample of teachers to act as another comparison group for CTT when the data are available (not all of the SASS and TFS data are available to the public).
**Researcher-Created Items**

I created (or adapted from preexisting instruments) the remaining items on the survey, which fell into four main categories: demographics, information related to professional development participation, a scale of items attempting to measure the quality of the teacher’s relationship with the subject he/she teaches\(^5\), and a scale of items specifically asking about the effects of participation in the professional development program on various issues. The entire survey (with the exception of the MBI, which for copyright purposes is limited to sample statements) is available in Appendix C and D. Appendix C contains the CTT version of the online survey, and Appendix D contains just those items on the NWP online survey that are different from the CTT version.

**Pilot Test**

Before its final administration to the CTT and NWP alumni samples described above, two rounds of pilot testing were undertaken. The CTT and NWP programs in Denver, CO both agreed to ask their alumni to complete the pilot survey and to respond to the question: *Do you have any comments or suggestions about the survey in general that could be used to improve the final version or increase the likelihood of busy teachers being willing to complete it?* Twenty-three responses were received from the Colorado CTT group and 28 responses were received from the NWP group. Based on the results of the pilot survey and an analysis of the responses received, many of the researcher-created items were reworded, changed, or discarded, several of the NCES items were added or discarded, and parts of the survey were restructured to make it as easy to complete as possible and not too lengthy. Because the final survey instrument is different

---

\(^5\) This subscale ended up both to be a relatively weak measurement, and also not as related to the outcomes of the study as I had anticipated, so it is not used in this analysis. Other survey items are also not used in this analysis for similar reasons.
from the version used in the pilot testing, the responses from the Colorado groups on the pilot survey are not included in the analysis presented here.

**Confidentiality of Data**

Human Research Committee (HRC) approval for this study has been obtained from the appropriate authorities at the University of Colorado at Boulder. In accordance with human research guidelines, all data is kept on a secure computer in the researcher’s office, which is locked. Printed data is also kept in a locked file cabinet in the researcher’s office. The anonymity of all participants is preserved by reporting results in the aggregate, using pseudonyms or identifying numbers, and/or excluding information that could be used to identify the subject. Five years after the conclusion of the study, all data will be destroyed.

**Survey Data Limitations**

Even with all the care taken on the construction of the survey and sampling of survey respondents there are clear limitations to the database that resulted, primarily with regards to response rates and representativeness. As I analyzed the data, other limitations also emerged, which will be discussed in future chapters.

**Response Rates and Representativeness**

I was not able to guarantee participation of all sites in my samples, which means that even though the samples were designed to be representative in terms of geographical region and age of site (both vis-à-vis each other and on an individual program basis), this level was not achieved. Also, a geographic match was not obtained for all sites, and even for those sites that are matched geographically, the respondents themselves are not matched one-to-one. To a large degree, the propensity score matching techniques (to be described in Chapter Five) will help to minimize this issue, as the respondents were ultimately matched on variables that encompass
geography. However, it is not accurate to state that the CTT and NWP samples are representative of all sites in each program.

Nor is it possible to claim that the CTT and NWP respondents are representative of all participants of each program as a whole. Although my response rate was high for a study of this nature, there are still many who did not choose to respond, and there is little data available with which to analyze the non-respondents. I have no way of knowing, for example, if only the participants who benefited most from their participation in the PD program chose to respond, or if it was only those who are already engaged with teaching. Any conclusions reached must therefore be limited to the sample of CTT and NWP alumni who participated in this study.

**Focus of Analysis on PK-12 Teachers**

Although the survey was administered to respondents who teach at all levels, only those respondents who were PK-12 teachers at the time they completed the survey are being analyzed in the chapters that follow. While there are certainly differences between PK-12 schools at the various levels, the differences between them are not as great as those between PK-12 schools and colleges/universities. To keep the groups as comparable as possible, instructors at the college/university level or other non-PK-12 levels have been excluded as well as any respondents who indicated that they are administrators. Any respondents who were not currently teaching were also taken out of the sample. In addition, a small proportion of cases were excluded either because they had missing data regarding their current teaching status or because they had participated in both CTT and NWP. After removing these cases, a total of 420 (144 CTT and 276 NWP) cases remain out of the original 662 completed responses received on the survey. All of these 420 respondents completed the survey, participated in just one of the two PD programs, and are currently PK-12 teachers.
For those who are interested in descriptive statistics on the subset of respondents who are college and university level instructors, this information can be found in Appendix E. The number of administrators who completed the survey was very small, and descriptive statistics would not be particularly meaningful so they have not been calculated for this subset of respondents.

Summary of Chapter

This chapter has explained how I came to use a quasi-experimental study design, as well as the issues involved with trying to measure a counterfactual outcome and how an appropriately selected control group can help minimize bias. The National Writing Project was introduced and existing research examined to illuminate similarities and differences between the two PD programs. The procedures that I used to select my sample were explained, along with my response rates. The survey instrument, the pilot test, confidentiality issues, and survey data limitations were also discussed.

In the next chapters, I will present my findings: Chapter Four will cover descriptive characteristics of the CTT and NWP respondents and nationally representative samples of teachers in general. Chapter Five will address the question of CTT’s effect on subsequent teacher engagement and perceived benefits. Chapter Six will present exploratory data related to retention, and Chapter Seven will do the same with regards to the most valuable aspects of the PD programs.
CHAPTER 4. CHARACTERISTICS OF RESPONDENTS

My first research question asks about the teachers who choose to participate in a transformative professional development program:

Research Question #1: What are the characteristics of teachers who participate in a transformative professional development program such as Courage to Teach? How do they compare to teachers who participate in other forms of professional development, and in what ways?

This chapter will describe the demographics of the Courage to Teach and National Writing Project respondents, as well as the characteristics of the schools they teach at and the students they teach. The National Center for Education Statistics’ 2007-2008 Schools and Staffing Survey (SASS) and 2008-2009 Teacher Follow-Up Survey (TFS) collect data on a nationally representative sample of teachers. This sample will be used as a comparison group for the CTT respondents (Coopersmith, 2009; Keigher, 2010). As a reminder, this section will focus on those respondents who are current PK-12 teachers, completed the survey, and have only participated in one of the two PD programs. Comparing CTT to NWP respondents allows us to see if there are differences between the two PD programs in the types of teachers they attract and serve, while comparing CTT to the NCES sample allows us to see if CTT respondents are dramatically different from the teaching population as a whole.

Demographics

I begin by comparing the CTT and NWP respondents with respect to their gender, race/ethnicity, age, teaching experience, retirement eligibility, certification status, whether or not they teach full time or part time, and their satisfaction with their salary (see Table 4-1). Next, for survey variables where this is possible, I compare the responses of CTT participants to a
nationally representative sample of teachers from the NCES’s 2007-2008 Schools and Staffing Survey (Coopersmith, 2009; Keigher, 2010).

Table 4-1. Demographic Characteristics of CTT and NWP PK-12 Respondents

<table>
<thead>
<tr>
<th></th>
<th>CTT</th>
<th>NWP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Female</td>
<td>126</td>
<td>88.1</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>129</td>
<td>90.2</td>
</tr>
<tr>
<td>African American</td>
<td>6</td>
<td>4.2</td>
</tr>
<tr>
<td>Multiracial</td>
<td>5</td>
<td>3.5</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2</td>
<td>1.4</td>
</tr>
<tr>
<td>Asian</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>American Indian</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 yrs or younger</td>
<td>4</td>
<td>2.8</td>
</tr>
<tr>
<td>31-40 yrs old</td>
<td>29</td>
<td>20.1</td>
</tr>
<tr>
<td>41-50 yrs old</td>
<td>46</td>
<td>31.9</td>
</tr>
<tr>
<td>51-60 yrs old</td>
<td>55</td>
<td>38.2</td>
</tr>
<tr>
<td>61 yrs or older</td>
<td>10</td>
<td>6.9</td>
</tr>
<tr>
<td>Teaching Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 yrs or less</td>
<td>20</td>
<td>14.0</td>
</tr>
<tr>
<td>6-10 yrs</td>
<td>32</td>
<td>22.4</td>
</tr>
<tr>
<td>11-20 yrs</td>
<td>59</td>
<td>41.3</td>
</tr>
<tr>
<td>21 yrs or more</td>
<td>32</td>
<td>22.4</td>
</tr>
<tr>
<td>Retirement Eligibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In 5 years or less</td>
<td>34</td>
<td>23.8</td>
</tr>
<tr>
<td>In 6 to 10 years</td>
<td>34</td>
<td>23.8</td>
</tr>
<tr>
<td>In 11 years or more</td>
<td>67</td>
<td>46.9</td>
</tr>
<tr>
<td>Has Teaching Certificate</td>
<td>134</td>
<td>94.4</td>
</tr>
<tr>
<td>Full Time Teacher</td>
<td>133</td>
<td>92.4</td>
</tr>
<tr>
<td>Satisfied With Salary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>12</td>
<td>8.3</td>
</tr>
<tr>
<td>Somewhat disagree</td>
<td>37</td>
<td>25.7</td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>69</td>
<td>47.9</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>26</td>
<td>18.1</td>
</tr>
</tbody>
</table>
Gender and Race/Ethnicity

The majority of respondents in this study (at least 85% or more) are primarily female and primarily white for both CTT and NWP. Compared to a nationally representative sample of teachers surveyed by NCES on the 2007-2008 SASS (Coopersmith, 2009), the CTT teachers are less diverse in terms of gender and race. Nationwide, almost 25% of the K-12 teaching force is male, compared to only 12% of the CTT respondents (see Figure 4-1).

Figure 4-1. Comparison of CTT respondents and the NCES national sample by gender.

In the national sample, 16% of teachers are estimated to be non-White, as opposed to only 10% of the CTT respondents (see Figure 4-2).
Age, Teaching Experience, and Retirement Eligibility

While CTT and NWP participants look fairly similar in terms of race and gender, there are large differences in age and teaching experience, as well as retirement eligibility. CTT participants are older than the NWP participants in this sample, and correspondingly have greater amounts of teaching experience at the time of their participation in the program (see Figures 4-3 and 4-4).
As would be expected given the differences in age and teaching experience, the CTT respondents are also much closer to retirement than the NWP respondents, with almost half of the CTT sample becoming eligible in the next 10 years compared to slightly less than a third of the NWP sample.
CTT teachers are also considerably older and have more teaching experience than the National Center for Education Statistics’ nationally representative sample of teachers in the 2007-08 Schools and Staffing Survey (Coopersmith, 2009) (see Figures 4-5 and 4-6).

![CTT Age Distribution](image1)

**Figure 4-5. Comparison of CTT respondents and the NCES national sample by age.**

![CTT Teaching Experience Distribution](image2)

**Figure 4-6. Comparison of CTT respondents and the NCES national sample by teaching experience.**

No data were available on the Schools and Staffing Survey regarding when teachers were eligible for retirement, but as this correlates with age and teaching experience, it is reasonable to expect that the CTT respondents are closer to retirement than teachers in general.
Certification and Full Time Status

The vast majority of both the CTT and the NWP respondents hold teaching certificates for the state in which they are currently teaching. Slightly more of the NWP respondents have teaching certificates than the CTT respondents, but both groups are well over 90%. The same pattern exists for the CTT and NWP respondents in terms of their teaching status. Again, more than 90% of the respondents in both programs teach full time, and NWP has slightly more full time teachers than CTT in this sample.

It is challenging to directly compare the teaching certification of the CTT respondents to the nationally representative sample of teachers from the 2007-2008 SASS (Keigher, 2010) because of differences in how the data were collected. In the SASS, the data is broken down by type of certificate: regular certificate, provisional certificate (still needs to complete a probationary period, a certification program, or other requirements such as additional coursework or student teaching), or none of the above. If we compare the number of CTT respondents reporting they hold a teaching certificate (94.4%) to the estimated number of teachers in the nationwide sample holding a regular certificate (87.1%), then CTT appears to have more teachers who hold a teaching certificate. But, if we compare the CTT respondents to the estimated number of the nation’s teachers holding a regular or a provisional certificate (98.6%), then CTT has fewer teachers with certification. Because no distinction was made between regular or provisional certification for the CTT sample, it is not possible to determine which scenario is more accurate.

When the CTT respondents are compared to a nationally representative sample of teachers from the 2007-2008 SASS (Keigher, 2010) on full time teaching status, the two groups look quite similar (see Figure 4-7).
Figure 4-7. Comparison of CTT respondents and the NCES national sample by full time teaching status.

In the CTT sample, 92% reported teaching full time, and an estimated 91% of the nation’s teachers are full time teachers as well.

**Satisfaction With Salary**

About a third of the respondents from both PD programs indicated that they were not completely satisfied with their salary, but the differences between the two groups are very slight. While CTT had more respondents overall who agreed with the statement (I am satisfied with my teaching salary), NWP had more respondents who strongly disagreed with the statement than CTT. Both PD programs had exactly the same percentage of respondents who strongly agreed with the statement (18%), indicating that they are indeed satisfied with their teaching salary.

While the data from the most recent SASS/TFS surveys is not available, I can compare the CTT teachers to the teachers who completed the previous administration of the TFS (National Center for Education Statistics, 2004-2005). Two-thirds (66%) of the CTT teachers strongly or somewhat agreed with the statement: *I am satisfied with my teaching salary*. Slightly less than half (48%) of the teachers on the TFS, regardless of whether they had stayed at the
same school or moved to another, said the same. So it appears that a significantly higher percentage of the CTT teachers are satisfied with their salaries than in the nationally representative sample.

**School and Student Characteristics**

Differences exist between CTT and NWP respondents in terms of the characteristics of the schools at which they teach and the students at those schools. For all respondents who provided their school’s name, city, and state, this information was used to search for their schools on the Common Core of Data (CCD) database, a program of the U.S. Department of Education’s National Center for Education Statistics. When a match was found, the relevant characteristics of the school were retrieved from the CCD database. This section will examine differences and similarities between the samples on school level, school size, school locale, public or private sector, and percentages of non-White students and students eligible for free and reduced lunch (FRL) (see Table 4-2).
Table 4-2. School and Student Level Characteristics of CTT and NWP Respondents

<table>
<thead>
<tr>
<th></th>
<th>CTT</th>
<th></th>
<th></th>
<th>NWP</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td></td>
<td>n</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>School Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary (PK-6)</td>
<td>56</td>
<td>39.4</td>
<td></td>
<td>65</td>
<td>23.7</td>
<td></td>
</tr>
<tr>
<td>Secondary (7-12)</td>
<td>41</td>
<td>28.9</td>
<td></td>
<td>104</td>
<td>38.0</td>
<td></td>
</tr>
<tr>
<td>Combined (PK-12)</td>
<td>32</td>
<td>22.5</td>
<td></td>
<td>80</td>
<td>29.2</td>
<td></td>
</tr>
<tr>
<td>No CCD data available</td>
<td>13</td>
<td>9.2</td>
<td></td>
<td>25</td>
<td>9.1</td>
<td></td>
</tr>
<tr>
<td>School Size</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 500 students</td>
<td>65</td>
<td>50.4</td>
<td></td>
<td>91</td>
<td>37.0</td>
<td></td>
</tr>
<tr>
<td>500-999 students</td>
<td>38</td>
<td>29.5</td>
<td></td>
<td>81</td>
<td>32.9</td>
<td></td>
</tr>
<tr>
<td>1,000 or more students</td>
<td>26</td>
<td>20.2</td>
<td></td>
<td>74</td>
<td>30.1</td>
<td></td>
</tr>
<tr>
<td>Student/Teacher Ratio</td>
<td>14.8</td>
<td></td>
<td></td>
<td>16.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Locale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>52</td>
<td>40.3</td>
<td></td>
<td>64</td>
<td>25.5</td>
<td></td>
</tr>
<tr>
<td>Suburban</td>
<td>33</td>
<td>25.6</td>
<td></td>
<td>90</td>
<td>35.9</td>
<td></td>
</tr>
<tr>
<td>Town</td>
<td>10</td>
<td>7.8</td>
<td></td>
<td>38</td>
<td>15.1</td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>34</td>
<td>26.4</td>
<td></td>
<td>59</td>
<td>23.5</td>
<td></td>
</tr>
<tr>
<td>Teaches at Public School</td>
<td>121</td>
<td>93.8</td>
<td></td>
<td>241</td>
<td>97.2</td>
<td></td>
</tr>
<tr>
<td>% of Non-White Students</td>
<td>129</td>
<td>37</td>
<td></td>
<td>246</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>% of Students Eligible for FRL</td>
<td>129</td>
<td>36</td>
<td></td>
<td>246</td>
<td>31</td>
<td></td>
</tr>
</tbody>
</table>

School Level Taught

There is a clear difference between the two PD program samples on school level. The largest percentage of CTT respondents teach at elementary schools, while more of the NWP respondents teach at secondary schools.

In order to compare the CTT respondents with the nationally representative sample from the 2007-2008 SASS (Coopersmith, 2009), we will look only at those who have Common Core of Data statistics available on school level and exclude all those for whom data were not available. Although this raises the percentage of CTT respondents at elementary schools up to 43%, it is still far shy of the national estimate of 61% (see Figure 4-8).
The CTT sample also has a much higher percentage of teachers at combined schools (which can include schools serving grades PK-12 or grades 6-8, as long as the school includes at least one grade between PK-6 and one between grades 7-12).

**Size of School**

In terms of school size, the CTT teachers are more likely to be teaching at smaller schools, while the NWP respondents are more likely to be teaching at larger schools. The CTT respondents also have slightly lower student/teacher ratios at their schools than the NWP respondents, although the difference is not great.

When the CTT respondents are compared to the nationally representative sample of teachers and students from the 2007-08 Schools and Staffing Survey (Coopersmith, 2009), again a higher percentage of the CTT participants teach at smaller schools (see Figure 4-9).
Location of School

There are differences between the two PD program samples regarding school locale, in that more of the CTT respondents teach at urban schools, while more NWP respondents teach at suburban schools. Compared to the nationwide sample on school locale (Coopersmith, 2009), CTT has more teachers at urban schools than is estimated nationwide, and fewer teachers at suburban schools (see Figure 4-10).

![Figure 4-9. Comparison of CTT respondents and the NCES national sample by school size.](image)

![Figure 4-10. Comparison of CTT and the NCES national sample on school locale.](image)
Public or Private Sector

Slightly more CTT respondents (6%) than NWP respondents (3%) teach at private schools. Over ninety percent of the respondents from both PD programs teach at public schools. Compared to the nationally representative sample of teachers, a higher percentage of the CTT respondents are public school teachers (Coopersmith, 2009). Only 87% of teachers nationwide teach at public schools, compared to 94% of the CTT sample (see Figure 4-11).

![Figure 4-11. Comparison of CTT and the NCES national sample by public/private sector.](image)

Percentages of Non-White Students and Students on Free or Reduced Lunch

There are some differences in the characteristics of the students that the two groups teach as well. Compared to the NWP respondents, the CTT participants as a whole have slightly higher percentages of both non-White\(^6\) students and students on free or reduced lunch (FRL) at their schools. However, compared to teachers nationwide (Coopersmith, 2009), the CTT respondents have both fewer non-White students and fewer students approved for free and reduced lunch in their schools (see Figure 4-12).

---

\(^6\) The term non-White refers to all students who are American Indian/Alaskan Native, Asian/Pacific Islander, Hispanic, or Black as reported by the Common Core of Data. Because at any particular school the non-White students may be either in the minority or majority relative to the entire student body, I chose to use the term non-White rather than minority.
As the above comparisons show, at least relative to the participants in these two PD programs, the CTT program appeals to older, more experienced teachers while the NWP program appears to attract teachers at earlier stages in their careers. The CTT respondents are also more likely to teach at schools that are smaller, private, urban, and at the elementary level than the NWP respondents, who are more likely to be at secondary schools that are larger, public, and in suburban areas. There are small differences in terms of the percentages of minority students and students eligible for free and reduced lunch, with the CTT teachers having slightly higher percentages in both categories. The respondents of both PD programs are primarily White and female. The vast majority of the respondents from both PD programs teach full time and hold teaching certificates in their states, and more than half are satisfied with their salaries.

A somewhat different picture emerges when the CTT respondents are compared to a nationally representative sample of teachers from the 2007-2008 SASS. The CTT sample is again considerably older and more experienced than the nationally representative sample, but less diverse in terms of gender and race/ethnicity. The CTT respondents are less likely to teach at
elementary schools compared to the nationwide estimates, but a considerably higher percentage of them teach at combined schools. The CTT program appears to attract teachers who are more likely to teach at smaller schools (500 students or less) and in urban areas, but the students at these schools are not as diverse with regards to percentages of minority students and students eligible for free and reduced lunch. The CTT respondents are also more likely to teach at public schools than the nationally representative sample. According to the available data, CTT respondents are just as likely to hold teaching certificates and work full time as teachers nationwide.

**Characteristics of the Professional Development Programs**

This last section examines when the respondents of the two professional development programs participated, and also the type of CTT retreat series that the CTT respondents participated in (see Table 4-3).

The NWP has been in existence twenty years longer than CTT, so it is no surprise that the NWP respondents participated longer ago, in general, than the CTT respondents. Almost two-thirds of the CTT respondents have participated in the last five years, compared to slightly over half of the NWP respondents.
Almost half of the CTT respondents (48%) participated in a retreat series of five retreats. Slightly more than a third (36%) participated in an eight-retreat series, and the remaining 16% participated in a series of four or fewer. Although the CTT program was initially conceived as a series of eight retreats over two years, as time went on many programs shifted to the five-retreat model as it was more manageable in terms of time and cost. Because of this, it is not surprising that the majority of the CTT respondents participated in a series of five retreats rather than eight.

**Summary of Chapter**

This chapter answers the question of how the CTT participants in this study compare to those who participated in NWP and to a nationally representative sample of teachers. In many ways, the CTT respondents look similar to both comparison groups: the majority teach full time, hold teaching certificates, and teach in public schools. In other areas, there are some distinct differences, especially in terms of the age and teaching experience of the CTT respondents.

The next chapter will discuss the data relevant to the second and third research questions that can be used to estimate causal effects of participation in CTT on teacher engagement and
perceived benefits. These are the questions for which the propensity score matching techniques are being used, so first this process will be explained, and then the results will be presented.
CHAPTER 5. EFFECTS OF PARTICIPATION IN COURAGE TO TEACH ON TEACHER ENGAGEMENT AND PERCEIVED BENEFITS

The second research question asked about the effects of participation in a transformative professional development (TPD) program on teacher engagement and retention:

Research Question #2: Does participation in Courage to Teach have an effect on subsequent engagement with and retention in teaching?

This chapter will use the Maslach Burnout Inventory (MBI) to answer the part of the question regarding engagement, comparing scores between Courage to Teach (CTT) and the National Writing Project (NWP) and also CTT and normative/other samples of teachers who have taken the MBI. As the data collected is not representative or generalizable, the results must be constrained to the effects of CTT on teacher engagement for these respondents, as opposed to TPD programs or CTT participants in general.

In this chapter I will also address the first part of the third research question, as it too involves estimating effects:

Research Question #3a: What is the effect of participation in Courage to Teach on the perceived benefits of participation with regards to: understanding of subject matter, professional relationships, energy levels, and enjoyment of teaching?

Before analyzing the data relevant to the effect of CTT on teacher engagement or on perceived benefits of participation, I will explain the technique of propensity score matching. I used propensity score matching to select comparable subsets from my treatment and control groups, which is critical to estimating effects with as little bias as possible.
Propensity Score Matching

Even though I am comparing the CTT teachers in my study to a sample of teachers who participated in NWP (as opposed to teachers who have not chosen to participate in any professional development) differences may still exist between the groups. Many of these differences became apparent in Chapter Four; for example, the CTT respondents are older, have considerably more teaching experience, and are closer to retirement than the NWP respondents. Another step is needed to make these two groups comparable before looking at the outcomes.

The technique used here is known as propensity score matching, which in essence matches the respondents on selected covariates so that they look as similar as possible. This step takes place before any outcome variables have been analyzed; this is critical so as to avoid introducing any bias (for example, choosing the samples that result in the outcomes the researcher wishes to see) (Ho et al., 2007; Rubin, 2001, 2007).

Covariate Selection

Through propensity score matching techniques, the same distribution of all observed covariates can be obtained for both the treatment and control groups (Rubin, 2001). Based on the review of the literature on teacher burnout/engagement and attrition/retention in Chapter Two, a number of variables emerged that could affect the outcomes of interest (e.g., age, teaching experience, characteristics of students and schools). If the individuals in the treatment and control groups are comparable on these covariates, one can be much more confident that any mean differences found on the outcomes are due to the treatment rather than differences in the groups themselves. To the extent that all plausible confounding variables have been measured and the two groups are comparable with respect to these variables, then the resulting mean

---

7 A covariate is a variable that is not a part of the treatment but that could have an effect on the outcome; the terms covariate and variable are often used interchangeably.
difference on the outcome serves as a valid approximation of what would be obtained in a randomized experiment (Caliendo & Kopeinig, 2008; Dehejia & Wahba, 2002; Domingue & Briggs, 2009; Ho et al., 2007; Morgan, 2001; Rosenbaum & Rubin, 1983, 1985; Rubin, 2001, 2007). Of course, if there are confounding variables that were not measured, or omitted variables, then the approximation may still be biased (Ho et al., 2007). The potentially confounding variables that were available after administering the survey for this study are listed in Table 5-1.

**Table 5-1. Potentially Confounding Variables Used in Propensity Score Matching**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year Began</td>
<td>Year respondent began participation in PD program.</td>
</tr>
<tr>
<td>Age</td>
<td>Age of respondent.</td>
</tr>
<tr>
<td>Teaching Experience</td>
<td>Teaching experience of respondent at time of participation in PD program.</td>
</tr>
<tr>
<td>Retirement</td>
<td>Time frame in which respondent becomes eligible for retirement.</td>
</tr>
<tr>
<td>Gender</td>
<td>Gender of respondent.</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>Race/ethnicity of respondent.</td>
</tr>
<tr>
<td>Certificate</td>
<td>Whether respondent holds a teaching certificate.</td>
</tr>
<tr>
<td>Full Time</td>
<td>Whether respondent teaches full time or part time.</td>
</tr>
<tr>
<td>Salary</td>
<td>Whether respondent is satisfied with current salary.</td>
</tr>
<tr>
<td>School Level</td>
<td>Level (elementary, etc.) of school at which respondent currently teaches.</td>
</tr>
<tr>
<td>School Locale</td>
<td>Location (urban, etc.) of school at which respondent currently teaches.</td>
</tr>
<tr>
<td>Total # Students</td>
<td>Total number of students at respondent’s current school.</td>
</tr>
<tr>
<td>Student/Teacher Ratio</td>
<td>Ratio of students to teachers at respondent’s current school.</td>
</tr>
<tr>
<td>Sector</td>
<td>Whether respondent teaches at a public or private school.</td>
</tr>
<tr>
<td>% FRL Students</td>
<td>Percentage of students at respondent’s current school who are eligible for free or reduced lunch.</td>
</tr>
<tr>
<td>% Non-White Students</td>
<td>Percentage of students at respondent’s current school who are non-White.</td>
</tr>
</tbody>
</table>
The covariates included in the propensity score matching should be those that could influence the treatment assignment and also the outcome; they should not, however, be affected by the treatment itself. This is in contrast to the outcome variables, which are expected to change as a result of the treatment. All the variables should be measurable before participation in the professional development program (Ho et al., 2007; Rubin, 2007).

**Proxy Variables**

Unfortunately, due to the retrospective nature of the survey it is difficult to know whether or not certain covariates were themselves influenced by participation in CTT or NWP. Rather than ask respondents how they felt at the time of their participation in the PD program, which could easily have been a decade or two ago, I asked them about their current or most recent teaching situation. For example, I gathered information on respondents’ current schools and used these data as proxies for the covariates related to school and student characteristics. I reasoned that if respondents hold the same position now that they did at the time they participated in the PD program, these variables would be an acceptable estimate of the values I would have obtained if the variables were measured before the treatment took place. Even for those respondents who changed positions since their participation, chances are good that not all of the characteristics of their school and students changed as well. Also, those characteristics that did change may not have changed as a result of the respondent’s participation in the PD program. I chose to use the school and student characteristics, as well as a few of the current teacher characteristics (full time status, teaching certification, and satisfaction with salary) as proxy variables even though I knew that I might be introducing some bias. Although the bias may be minimal, I cannot know for certain. These proxy variables are a definite weakness of my study.
and will limit any claims I may be able to make, but they allow me to account for contextual variables in my analysis.

**Level of Involvement**

The National Writing Project decided to have site directors invite only the most involved alumni (all summer institute alumni who had participated in an activity within the past three years), but all CTT alumni were invited to participate, regardless of the degree to which they had stayed involved with the program after their initial participation. As expected, more of the NWP respondents (36%) rated themselves as very involved with the program, compared to the CTT respondents (20%). While it would seem that the obvious solution is to include level of involvement as one of the potentially confounding variables, I decided not to do so. Given that a respondent’s level of involvement with the PD program can only occur after the treatment takes place and is 100% affected by the treatment, including it in the propensity score matching seemed sure to introduce bias (whereas I was able to make a reasonable argument for including current school and student level characteristics as proxy variables). After obtaining my results, I can run the propensity score matching again with level of involvement included to see if the results change. If they do, I will know that level of involvement does have some influence on engagement, although it will be difficult to say exactly what (see Chapter Eight).

**Balance Before Matching**

Now that the covariates have been decided upon, I want to know how comparable the two groups are before any matching is done. If large differences exist between the groups on particular variables and are allowed to remain, there is no way of knowing whether or not any variations in the outcomes are actually due to these differences rather than participation in CTT.
In Table 5-2, I look at two measurements of balance on the covariates: (a) the difference between the means of the two PD groups, which tells me how close or far apart they are in the original units (for example, YrBeganPDProgram is measured in years, and the positive sign indicates that the CTT mean is greater than the NWP mean), and (b) the standardized mean difference, which standardizes all the units so that they can be compared to one other on the same scale. Those variables with the largest standardized differences, whether positive or negative, are the ones on which the two PD programs are most different before matching.

As can be seen in Table 5-2, some noticeable differences exist between the CTT and NWP respondents. In fact, almost two-thirds of the covariates in the model have standardized differences of .20 or higher, and seven covariates have standardized differences of .30 or greater. After propensity score matching is completed, the groups will be compared again to see if the differences between them on these variables have gotten closer, or in other words, if the balance has improved. The goal of propensity score matching is to find the subsets of the two groups that have the best balance on the selected covariates. To achieve this, respondents are analyzed based on their propensity score and only those that are comparable to respondents in the other group are retained in the sample; this process will be discussed in more detail in the next section.
### Table 5-2. Comparability on Covariates Before Propensity Score Matching

<table>
<thead>
<tr>
<th></th>
<th>CTT (n=118)</th>
<th>NWP (n=222)</th>
<th>Mean Diff*</th>
<th>Std Mean Diff**</th>
</tr>
</thead>
<tbody>
<tr>
<td>YrBeganPDProgram</td>
<td>2004.74</td>
<td>2003.55</td>
<td>1.19</td>
<td>0.22</td>
</tr>
<tr>
<td>Total#Students</td>
<td>649.89</td>
<td>804.51</td>
<td>-154.62</td>
<td>-0.25</td>
</tr>
<tr>
<td>StudentTeacherRatio</td>
<td>14.59</td>
<td>16.14</td>
<td>-1.56</td>
<td>-0.19</td>
</tr>
<tr>
<td>%FRLStudents</td>
<td>0.36</td>
<td>0.31</td>
<td>0.05</td>
<td>0.18</td>
</tr>
<tr>
<td>%NonWhiteStudents</td>
<td>0.36</td>
<td>0.34</td>
<td>0.02</td>
<td>0.08</td>
</tr>
</tbody>
</table>

Variables below are categorical; means expressed as percents.

<table>
<thead>
<tr>
<th></th>
<th>CTT (n=118)</th>
<th>NWP (n=222)</th>
<th>Mean Diff*</th>
<th>Std Mean Diff**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age30YrsOrLess</td>
<td>0.03</td>
<td>0.15</td>
<td>-0.12</td>
<td>-0.33</td>
</tr>
<tr>
<td>Age31To40Yrs</td>
<td>0.19</td>
<td>0.30</td>
<td>-0.11</td>
<td>-0.23</td>
</tr>
<tr>
<td>Age41To50Yrs</td>
<td>0.36</td>
<td>0.25</td>
<td>0.10</td>
<td>0.24</td>
</tr>
<tr>
<td>Age51To60Yrs</td>
<td>0.34</td>
<td>0.23</td>
<td>0.10</td>
<td>0.25</td>
</tr>
<tr>
<td>TeachExp5YrsOrLess</td>
<td>0.14</td>
<td>0.41</td>
<td>-0.26</td>
<td>-0.53</td>
</tr>
<tr>
<td>TeachExp6to10Yrs</td>
<td>0.23</td>
<td>0.23</td>
<td>-0.01</td>
<td>-0.01</td>
</tr>
<tr>
<td>TeachExp11to20Yrs</td>
<td>0.41</td>
<td>0.42</td>
<td>0.19</td>
<td>0.45</td>
</tr>
<tr>
<td>Retire5YrsOrLess</td>
<td>0.23</td>
<td>0.16</td>
<td>0.07</td>
<td>0.18</td>
</tr>
<tr>
<td>Retire6To10Yrs</td>
<td>0.21</td>
<td>0.15</td>
<td>0.06</td>
<td>0.18</td>
</tr>
<tr>
<td>Retire11YrsOrMore</td>
<td>0.51</td>
<td>0.64</td>
<td>-0.13</td>
<td>-0.27</td>
</tr>
<tr>
<td>Female</td>
<td>0.89</td>
<td>0.86</td>
<td>0.02</td>
<td>0.07</td>
</tr>
<tr>
<td>White</td>
<td>0.89</td>
<td>0.87</td>
<td>0.02</td>
<td>0.06</td>
</tr>
<tr>
<td>TeachesFullTime</td>
<td>0.92</td>
<td>0.98</td>
<td>-0.05</td>
<td>-0.36</td>
</tr>
<tr>
<td>HasCertificate</td>
<td>0.96</td>
<td>0.99</td>
<td>-0.03</td>
<td>-0.35</td>
</tr>
<tr>
<td>SatisfiedWithSalary</td>
<td>0.63</td>
<td>0.69</td>
<td>-0.06</td>
<td>-0.13</td>
</tr>
<tr>
<td>Elementary</td>
<td>0.43</td>
<td>0.28</td>
<td>0.15</td>
<td>0.34</td>
</tr>
<tr>
<td>Secondary</td>
<td>0.31</td>
<td>0.39</td>
<td>-0.09</td>
<td>-0.18</td>
</tr>
<tr>
<td>CombinedK12</td>
<td>0.26</td>
<td>0.33</td>
<td>-0.07</td>
<td>-0.14</td>
</tr>
<tr>
<td>Urban</td>
<td>0.40</td>
<td>0.27</td>
<td>0.13</td>
<td>0.30</td>
</tr>
<tr>
<td>Suburban</td>
<td>0.25</td>
<td>0.35</td>
<td>-0.10</td>
<td>-0.20</td>
</tr>
<tr>
<td>Town</td>
<td>0.08</td>
<td>0.15</td>
<td>-0.07</td>
<td>-0.20</td>
</tr>
<tr>
<td>Rural</td>
<td>0.27</td>
<td>0.23</td>
<td>0.04</td>
<td>0.09</td>
</tr>
<tr>
<td>Public</td>
<td>0.93</td>
<td>0.97</td>
<td>-0.04</td>
<td>-0.21</td>
</tr>
</tbody>
</table>

*Mean Diff = CTT Mean−NWP Mean  **Standardized Mean Diff = Mean Diff/Control SD
Propensity Scores and Selection of Matched Cases

A propensity score is “the conditional probability of assignment to a particular treatment given a vector of observed covariates” (Rosenbaum & Rubin, 1983, p. 41). More specifically, a propensity score is a numerical value computed for each individual (typically using logistic regression) that represents that person’s probability of being assigned to the treatment group based on the covariates in the model—the higher the propensity score, the more likely this is (Caliendo & Kopeinig, 2008; Dehejia & Wahba, 2002; Domingue & Briggs, 2009; Rosenbaum & Rubin, 1983). The score itself says nothing about what PD program an individual actually participated in, but rather her chances of having participated in CTT (indicated by a higher propensity score) or in NWP (indicated by a lower propensity score), given her responses on the covariates in the propensity score matching.

For the actual process of propensity score matching, only those cases without any missing responses on the selected covariates can be included. I began with 420 respondents (144 CTT and 276 NWP) who are currently PK-12 teachers, only participated in one of the two PD programs, and reached the end of the survey. Out of this group, 26 of the CTT cases and 54 of the NWP cases have some missing data on the covariates used in the matching process. Once these cases are removed so that the propensity score matching can be done, 340 cases remain (118 CTT and 222 NWP) in the sample. Propensity scores are then calculated for each remaining respondent on the selected covariates.

Each group of respondents has a range of propensity scores; the participants who were in CTT had scores that ranged from .05 to .97, and the NWP participants had scores ranging from .

---

8 While there are procedures for estimating or imputing missing values (e.g., Little, R. J. A., & Rubin, D. B. (2002). *Statistical Analysis with Missing Data, 2nd edition*. New York: Wiley), implementing these procedures were outside the scope of this study.

9 The software package MatchIt in the R programming environment was used to calculate propensity scores and match cases (Gentleman, Ihaka, & R Core Development Team, 1993; Ho et al., 2007; Ho, Imai, King, & Stuart, 2010).
.01 to .83. All the cases with scores less than .05 (23 NWP cases) and greater than .83 (7 CTT cases) were excluded from the sample because they were not comparable to anyone in the opposite group. This leaves a sample of 111 CTT respondents and 199 NWP respondents, for a total of 310 cases overall.

In Figure 5-1, the “Matched Treatment Units” represent the CTT respondents, and the “Matched Control Units” represent the NWP respondents. All of the circles representing these survey participants fall between approximately .05 and .83 on their propensity score, which is the range of the overlap in propensity scores between the two groups. On the lower left hand corner, a cluster of circles is apparent; these represent the 23 NWP cases with propensity scores less than .05 that were “unmatched” and therefore excluded from the sample. The cluster of circles at the top right hand corner of Figure 5-1 represents the seven CTT respondents with propensity scores higher than .83 who were also excluded from the matched sample.
Figure 5-1. Treatment and control cases plotted by propensity scores, matched and unmatched cases, and subclasses.

The size of the circles represents the weight given to that case in the matched sample; the larger the circle, the greater the weight. The treatment unit circles are the same size, as all the treated units have the same weight. There are more control units with lower propensity scores, so those all have smaller circles to represent smaller weights. Since there are fewer control units with high propensity scores, they are weighted more heavily, as represented by the large circles (Ho et al., 2010; Stuart & Green, 2008).
Subclasses and Balance After Matching

Even within the area of propensity score overlap there is quite a wide range of scores. It makes more sense to compare CTT participants with low propensity scores to NWP participants who also have low propensity scores, and vice versa. To accomplish this, the groups are divided into subclasses or strata (Domingue & Briggs, 2009; Ho et al., 2007; Rosenbaum & Rubin, 1983). The default number of subclasses is six in the MatchIt software, and the best balance for my data is achieved with six subclasses, as opposed to either four or five. The cutoff points for the six subclasses are represented by the vertical gray lines in Figure 5-1. Once the subclasses have been established, the two groups are analyzed again with respect to all of the covariates, subclass by subclass, and then standardized, weighted by the number of treatment units in each subclass, and averaged.

If the matching has been done correctly and the model is a good fit, then the mean differences and the standardized mean differences between the groups on the variables will have gotten smaller or disappeared altogether. We can see in Table 5-3 and Figure 5-2 that this is indeed the case. Before matching, many of the standardized differences between the means were .20 or higher, whereas after matching, no standardized difference is greater than .02, and many are at zero. This means that the propensity score matching has done its job, in that now our two groups are as close to each other as possible with respect to the covariates included in the matching process.
Table 5-3. Comparison of Mean and Standardized Differences Before and After Propensity Score Matching

<table>
<thead>
<tr>
<th>Variable</th>
<th>Before matching</th>
<th>After matching and across all subclasses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CTT Mean</td>
<td>NWP Mean</td>
</tr>
<tr>
<td></td>
<td>(n=118)</td>
<td>(n=222)</td>
</tr>
<tr>
<td>Overall Propensity Scores</td>
<td>0.49</td>
<td>0.27</td>
</tr>
<tr>
<td>YrBegan</td>
<td>2004.74</td>
<td>2003.55</td>
</tr>
<tr>
<td>Total#Students</td>
<td>649.89</td>
<td>804.51</td>
</tr>
<tr>
<td>StudentTeacherRatio</td>
<td>14.59</td>
<td>16.14</td>
</tr>
<tr>
<td>%FRLStudents</td>
<td>0.36</td>
<td>0.31</td>
</tr>
<tr>
<td>%NonWhiteStudents</td>
<td>0.36</td>
<td>0.34</td>
</tr>
</tbody>
</table>

Variables below are categorical; means expressed as percents.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Before matching</th>
<th>After matching and across all subclasses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age30YrsOrLess</td>
<td>0.03</td>
<td>0.15</td>
</tr>
<tr>
<td>Age31To40Yrs</td>
<td>0.19</td>
<td>0.30</td>
</tr>
<tr>
<td>Age41To50Yrs</td>
<td>0.36</td>
<td>0.25</td>
</tr>
<tr>
<td>Age51To60Yrs</td>
<td>0.34</td>
<td>0.23</td>
</tr>
<tr>
<td>TeachExp5YrsOrLess</td>
<td>0.14</td>
<td>0.41</td>
</tr>
<tr>
<td>TeachExp6to10Yrs</td>
<td>0.23</td>
<td>0.23</td>
</tr>
<tr>
<td>TeachExp11to20Yrs</td>
<td>0.41</td>
<td>0.22</td>
</tr>
<tr>
<td>Retire5YrsOrLess</td>
<td>0.23</td>
<td>0.16</td>
</tr>
<tr>
<td>Retire6To10Yrs</td>
<td>0.21</td>
<td>0.15</td>
</tr>
<tr>
<td>Retire11YrsOrMore</td>
<td>0.51</td>
<td>0.64</td>
</tr>
<tr>
<td>Female</td>
<td>0.89</td>
<td>0.86</td>
</tr>
<tr>
<td>White</td>
<td>0.89</td>
<td>0.87</td>
</tr>
<tr>
<td>TeachesFullTime</td>
<td>0.92</td>
<td>0.98</td>
</tr>
<tr>
<td>HasCertificate</td>
<td>0.96</td>
<td>0.99</td>
</tr>
<tr>
<td>SatisfiedWithSalary</td>
<td>0.63</td>
<td>0.69</td>
</tr>
<tr>
<td>Elementary</td>
<td>0.43</td>
<td>0.28</td>
</tr>
<tr>
<td>Secondary</td>
<td>0.31</td>
<td>0.39</td>
</tr>
<tr>
<td>CombinedK12</td>
<td>0.26</td>
<td>0.33</td>
</tr>
<tr>
<td>Urban</td>
<td>0.40</td>
<td>0.27</td>
</tr>
<tr>
<td>Suburban</td>
<td>0.25</td>
<td>0.35</td>
</tr>
<tr>
<td>Town</td>
<td>0.08</td>
<td>0.15</td>
</tr>
<tr>
<td>Rural</td>
<td>0.27</td>
<td>0.23</td>
</tr>
<tr>
<td>Public</td>
<td>0.93</td>
<td>0.97</td>
</tr>
</tbody>
</table>
The success of the propensity score matching can also be seen in Table 5-4, which shows the percent balance improvement over the raw data for the mean differences. The overall distance between the propensity scores of the two groups improved by 97.5%. All of the covariates show improvement compared to the original balance before matching, and most show significant improvement. Those covariates that showed the least amount of improvement are primarily those where the CTT and NWP respondents were already very close to each other before matching, so they did not have as much room to improve from the start.
Table 5-4. Percent Balance Improvement in Mean Differences After Propensity Score Matching

<table>
<thead>
<tr>
<th>Variable</th>
<th>% Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Propensity Scores</td>
<td>97.5</td>
</tr>
<tr>
<td>YrBeganPDPProgram</td>
<td>94.2</td>
</tr>
<tr>
<td>TotalStudents</td>
<td>94.0</td>
</tr>
<tr>
<td>StudentTeacherRatio</td>
<td>95.3</td>
</tr>
<tr>
<td>FRLStudents</td>
<td>75.4</td>
</tr>
<tr>
<td>NonWhiteStudents</td>
<td>45.4</td>
</tr>
<tr>
<td>Age30YrsOrLess</td>
<td>89.3</td>
</tr>
<tr>
<td>Age31To40Yrs</td>
<td>91.2</td>
</tr>
<tr>
<td>Age41To50Yrs</td>
<td>90.5</td>
</tr>
<tr>
<td>Age51To60Yrs</td>
<td>99.5</td>
</tr>
<tr>
<td>TeachExp5YrsOrLess</td>
<td>96.8</td>
</tr>
<tr>
<td>TeachExp6to10Yrs</td>
<td>29.0</td>
</tr>
<tr>
<td>TeachExp11to20Yrs</td>
<td>94.1</td>
</tr>
<tr>
<td>Retire5YrsOrLess</td>
<td>88.0</td>
</tr>
<tr>
<td>Retire6To10Yrs</td>
<td>99.9</td>
</tr>
<tr>
<td>Retire11YrsOrMore</td>
<td>96.7</td>
</tr>
<tr>
<td>Female</td>
<td>83.4</td>
</tr>
<tr>
<td>White</td>
<td>29.3</td>
</tr>
<tr>
<td>TeachesFullTime</td>
<td>95.1</td>
</tr>
<tr>
<td>HasCertificate</td>
<td>90.4</td>
</tr>
<tr>
<td>SatisfiedWithSalary</td>
<td>77.0</td>
</tr>
<tr>
<td>Elementary</td>
<td>88.0</td>
</tr>
<tr>
<td>Secondary</td>
<td>98.9</td>
</tr>
<tr>
<td>CombinedK12</td>
<td>73.6</td>
</tr>
<tr>
<td>Urban</td>
<td>94.1</td>
</tr>
<tr>
<td>Suburban</td>
<td>98.4</td>
</tr>
<tr>
<td>Town</td>
<td>92.6</td>
</tr>
<tr>
<td>Rural</td>
<td>68.2</td>
</tr>
<tr>
<td>Public</td>
<td>49.8</td>
</tr>
</tbody>
</table>

Of course, I can only control for those variables on which data was collected; there may be unknown confounding variables that are not taken into account in this model. However, short of a randomized experiment, these two samples are now quite well matched on many variables that might confound estimates of an effect on teacher engagement. Therefore, if any significant mean outcome differences are found a stronger case can be made that such differences may
indeed be due to the treatment (participation in CTT). Such claims must be tempered due to the existence of proxy variables and the possibility of omitted variables, but it is the best approximation available given the study design and data. In the following sections, as I attempt to answer the question of whether participation in CTT has an effect on engagement or on perceived benefits of the PD programs, I will put the propensity score matched sample to use.

**What is the Effect of Participation in Courage to Teach on Subsequent Teacher Engagement?**

My primary research question asks if participation in CTT has an effect on subsequent teacher engagement. In this study, engagement with teaching is measured using the Maslach Burnout Inventory-Educators Survey (MBI) (Maslach et al., 1986). There are three subscales of the MBI: emotional exhaustion, cynicism, and professional efficacy. Low emotional exhaustion, low cynicism, and high professional efficacy scores are all meant to be indicative of engagement with teaching, while scores on the other end of the scale would indicate burnout. While there are other methods by which the concept of engagement could be operationalized, such as leadership positions taken or educational activities outside of the classroom, these are not the focus of this study.

**Comparisons Before Propensity Score Matching**

To begin with, I will look at the original sample of 420 CTT and NWP respondents who are current PK-12 teachers, reached the end of the survey, and only participated in one out of the two PD programs. This will show how the two samples compare before any matching has been done to make the groups more similar on the potentially confounding variables. Table 5-5 shows the means and standard deviations for both CTT and NWP on the MBI subscales and the standardized difference between the means. As is evident from this table, prior to matching the
full CTT sample is slightly more emotionally exhausted, slightly less cynical, and has a higher level of professional efficacy\(^{10}\), on average, than the full NWP sample.

**Table 5-5. Comparison of CTT and NWP Scores on MBI Subscales Before Propensity Score Matching**

<table>
<thead>
<tr>
<th>MBI Subscale</th>
<th>CTT (n=144)</th>
<th>NWP (n=276)</th>
<th>Mean Diff</th>
<th>Std Mean Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Exhaustion</td>
<td>20.87</td>
<td>20.01</td>
<td>0.86</td>
<td>0.08</td>
</tr>
<tr>
<td>Cynicism</td>
<td>4.15</td>
<td>4.33</td>
<td>-0.18</td>
<td>-0.04</td>
</tr>
<tr>
<td>Professional Efficacy</td>
<td>41.21</td>
<td>40.64</td>
<td>0.57</td>
<td>0.11</td>
</tr>
</tbody>
</table>

*Note. The reliability of the three subscales ranges from .7-.9 (Cronbach’s alpha). Bold font indicates higher engagement on the part of the CTT respondents.*

The standardized differences between the means are in general quite small by most conventions (small effect=.20, medium effect=.50, large effect=.80). These conventions are just guidelines, however, and do not mean that even a very small effect might not be meaningful (Cohen, 1969, 1992; Howell, 2002; Prentice & Miller, 1992).

**Comparisons After Propensity Score Matching**

The next step is to see what happens to comparisons of the two groups’ mean scores on the MBI subscales after propensity score matching. As discussed earlier in this chapter, propensity score matching selects only the cases that are comparable with respect to a number of potentially confounding variables, which in this study include demographic characteristics of the respondents as well as school and student level characteristics. The process then attempts to only compare those cases that are the most alike, and it does this by placing cases in subclasses

---

\(^{10}\) The items on the emotional exhaustion and cynicism subscales represent negative feelings and attitudes, so a higher score indicates higher burnout, while a lower score indicates greater engagement. Because of this, an effect size with a positive sign actually indicates less engagement on the part of the CTT respondents. For the professional efficacy subscale, an effect size with a positive sign indicates greater engagement on the part of the CTT respondents.
according to the range of their propensity scores. Because most of the NWP respondents have low propensity scores (indicating that they are not very likely to be in the CTT condition, as one might expect), there are many more NWP cases in the lower subclasses than in the higher subclasses (refer to Figure 5-2). Table 5-6 shows the effect size for each subclass and the weighted effect size across all the subclasses.

Table 5-6. Comparison of CTT and NWP Effect Sizes on the MBI Subscales by Subclass and Overall

<table>
<thead>
<tr>
<th>MBI Subscale</th>
<th>Subclass 1</th>
<th>Subclass 2</th>
<th>Subclass 3</th>
<th>Subclass 4</th>
<th>Subclass 5</th>
<th>Subclass 6</th>
<th>Weighted Effect Size*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Exhaustion</td>
<td>0.49</td>
<td>0.03</td>
<td>-0.49</td>
<td>0.06</td>
<td>0.06</td>
<td>0.81</td>
<td>0.12</td>
</tr>
<tr>
<td>Cynicism</td>
<td>0.13</td>
<td>-0.48</td>
<td>-0.19</td>
<td>0.33</td>
<td>0.67</td>
<td>0.80</td>
<td>0.18</td>
</tr>
<tr>
<td>Professional Efficacy</td>
<td>0.14</td>
<td>0.53</td>
<td>0.14</td>
<td>0.54</td>
<td>-0.07</td>
<td>-0.75</td>
<td>0.13</td>
</tr>
<tr>
<td>CTT n</td>
<td>20</td>
<td>19</td>
<td>20</td>
<td>19</td>
<td>20</td>
<td>13</td>
<td>111</td>
</tr>
<tr>
<td>NWP n</td>
<td>105</td>
<td>31</td>
<td>28</td>
<td>20</td>
<td>9</td>
<td>6</td>
<td>199</td>
</tr>
</tbody>
</table>

Note. Bold font indicates higher engagement on the part of the CTT respondents.
*Weighted Effect Size is weighted by the number of cases in the treatment (CTT).

Even after matching, the CTT respondents are again on average somewhat more emotionally exhausted than the NWP respondents, and the size of the effect aggregated over all six subclasses has increased to .12 from .08. On the cynicism subscale, the direction has actually changed, and now the CTT respondents are more cynical than the NWP respondents, with an effect size of .18 (from -0.4 in the unmatched sample). The CTT respondents continue to have a stronger sense of professional efficacy than the NWP respondents, but the size of the effect increases only slightly from .11 in the unmatched sample to .13 in the matched sample.
These findings seem to indicate that the results shown in Table 5-5 (before matching) were biased in favor of CTT, particularly on the cynicism subscale. In other words, there appear to have been pre-existing differences between CTT and NWP participants that confounded the results. One potential confounder is the fact that the CTT respondents are more likely to teach at elementary schools than the NWP respondents before being matched. A study conducted in the United States several decades ago (Russell, 1987) suggests that secondary school teachers are more cynical than elementary school teachers. Common sense also argues that this may be the case, as teenagers who are struggling to assert their independence, acting out, and rebelling against authority may be more challenging to empathize with than younger students. It is possible that once the number of elementary school teachers is comparable between the two groups, the CTT respondents are no longer less cynical by comparison.

Subclass Interactions

One problem with interpreting the main effect aggregated over all six subclasses is that there are differences (i.e., interactions) in the effects by subclass. For example, on emotional exhaustion, the negative\(^\text{11}\) effect of CTT relative to NWP is largest in the first and last subclasses. There are only very small differences in subclasses 2, 4, and 5, and in subclass 3 there is a positive\(^\text{12}\) effect of CTT relative to the NWP respondents in that subclass.

If I look at the characteristics of the teachers in each subclass, these provide some clues to help explain the differences between the subclasses. I will focus my attention on those variables that contribute most to the propensity score matching, or in other words, those with the greatest influence on whether or not the respondent was predicted to be in the CTT condition.

\(^{11}\)“Negative effect of CTT” is used to refer to any effect of CTT that results in decreased engagement (higher emotional exhaustion, higher cynicism, or lower professional efficacy).

\(^{12}\)“Positive effect of CTT” is used to refer to any effect of CTT that results in increased engagement (lower emotional exhaustion, lower cynicism, or higher professional efficacy).
Five variables stand out: age (particularly those who are 30 years or younger), teaching experience (those who have had 11-20 years of teaching experience), school level (elementary school), school locale (urban), and the year they began their participation in the PD program (see Appendix F for logistic regression coefficients and descriptive statistics on each subclass).

The first subclass has the youngest respondents and the ones with the least teaching experience when they participated in the PD program, as well as the most secondary school teachers. The CTT and NWP respondents in the first subclass also participated in the PD program the least recently, so more time on average has elapsed between when they participated and when they completed the survey for this study. The next three subclasses in general contain the respondents who are middle-aged and with more teaching experience: neither the least nor the most experienced teachers, nor the youngest or the oldest, although as the subclasses go up, age and experience go up as well. These respondents are also relatively well distributed amongst elementary, secondary, and combined K-12 schools and also across urban, suburban, town, and rural locales. The last two subclasses have the highest percentages of elementary school teachers who teach in urban locations, and these respondents also participated most recently on average. These respondents are older than all the other subclasses, and they had the most teaching experience at the time they participated in the PD program.

If I look at the effects in each subclass, there is an imperfect, upside-down U-shaped pattern: the first subclass indicates that participation in CTT has mostly negative effects on engagement relative to participation in NWP. The next three subclasses contain the largest positive effects of CTT on engagement, with the third subclass showing only positive effects of CTT on engagement. In the fifth and sixth subclasses, the effects of CTT on engagement are
almost entirely negative and the largest of all. The effect sizes vary, and the pattern is not completely consistent, but this description loosely fits the data.

What this pattern suggests is that CTT does not have equal effects for all respondents. For those who are most likely to be in NWP (younger, the least experience at the time of their participation, secondary school teachers, and participated the least recently), participation in CTT actually has a negative effect on emotional exhaustion and cynicism relative to participation in NWP, but a small positive effect on professional efficacy. For those respondents in the middle (neither the youngest or the oldest, the teachers in the prime of their careers), participation in CTT is more likely to have a positive effect on engagement relative to the NWP respondents in those subclasses, especially for cynicism and professional efficacy. And finally, for those respondents who are most likely to be in CTT (older, the most experience at the time of their participation, elementary school teachers in urban locales, and who participated in the PD program most recently), the negative effects of CTT on engagement are the most pronounced, particularly on the cynicism subscale.

One possible explanation for why CTT appears to be least effective for those teachers who are most likely to participate in it is that these teachers choose to participate in CTT because they are seeking renewal or are questioning their commitment to teaching after many years in the field. Relative to the comparable NWP respondents, perhaps participation in CTT appears to have a less positive effect on engagement because these respondents were more in need of engagement to begin with. This survey does not include data that would help to determine if this is indeed the case, which is an issue in other areas as well and will be discussed later. Also, the last subclasses are the ones with the smallest number of NWP respondents, and so the results may not be as representative as those from the first four subclasses.
Nevertheless, the results from the matched samples seem to indicate that as age and teaching experience increase, the effectiveness of CTT relative to NWP decreases, particularly for respondents at urban, elementary schools. Participation in CTT also seems to have more of a negative effect on engagement relative to NWP for the youngest and least experienced respondents. It is those respondents in the prime of their careers with regards to age and teaching experience who are most likely to reap a positive effect on engagement from their participation in CTT relative to NWP.

**Courage to Teach and the Normative Sample of the MBI**

When the CTT sample is compared to the MBI’s normative sample of 4,163 teachers (Maslach et al., 1996), large differences are seen on the cynicism and professional efficacy subscales (see Table 5-7).

### Table 5-7. Comparison of CTT scores on MBI Subscales to MBI Normative Sample of Teachers

<table>
<thead>
<tr>
<th>MBI Subscale</th>
<th>CTT (n=144)</th>
<th>MBI (n=4163)</th>
<th>Mean Diff</th>
<th>Std Mean Diff*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Exhaustion</td>
<td>21.90</td>
<td>21.25</td>
<td>0.65</td>
<td>0.06</td>
</tr>
<tr>
<td>Cynicism</td>
<td>4.35</td>
<td>11.00</td>
<td>-6.65</td>
<td>-1.07</td>
</tr>
<tr>
<td>Professional Efficacy</td>
<td>41.44</td>
<td>33.54</td>
<td>7.90</td>
<td>1.15</td>
</tr>
</tbody>
</table>

*Note. The reliability of the three subscales ranges from .7-.9 (Cronbach’s alpha). Bold font indicates higher engagement on the part of the CTT respondents.  
*Standardized Mean Difference = Mean Diff/Control SD

On the emotional exhaustion subscale (lower means indicate engagement), the CTT group mean of 21.90 is slightly higher than the normative sample mean of 21.25. For the cynicism subscale, the CTT group mean is indicative of greater engagement (CTT=4.35, normative sample=11.00). The same is true for the professional efficacy subscale, on which higher means indicate engagement (CTT=41.44, normative sample=33.54). When standardized...
differences between the means are looked at, there are large differences on both the cynicism and professional efficacy subscales (-1.07 and 1.15 respectively).

Of course, these are not matched samples and there is quite a large time difference between when they were taken, so these differences must be taken with a grain of salt. Nevertheless, it is interesting that the CTT PK-12 teachers in my study are just as emotionally exhausted as the normative sample, yet have much higher levels of professional efficacy and much lower levels of cynicism, both of which indicate higher engagement.

**Courage to Teach and Other Studies of Teachers and the MBI**

There are a few studies that have (a) been conducted within the past ten years, (b) administered the MBI-ES to teachers in the United States, and (c) provided means and standard deviations for their samples on all three subscales of the MBI. These studies, along with the normative sample of the MBI, act as proxies for the control group that I did not choose: teachers who, at least as a whole, have not participated in any professional development programs. While there are still differences between these studies and the sample of CTT teachers in this research, these four studies also provide more chronologically appropriate comparisons than the normative sample of the MBI.

All the studies mentioned here use self-selected, convenience samples of teachers. They all take place in the United States, although only one (Kahn et al., 2006) samples teachers from multiple states as in this study. Two are with K-12 teachers (Grayson & Alvarez, 2008; Mearns & Cain, 2003), and one each is with elementary (McCarthy et al., 2009) and secondary (Kahn et al., 2006) teachers only. In terms of gender, the range is from 68% to 96% female. The CTT sample for this study is right in the middle, with 88% females. Because I asked the teachers in my study to provide a range for both age and teaching experience, it is difficult to compare
directly to the other studies. It appears that the teachers in my study are slightly older than the teachers in the other studies, and with correspondingly more teaching experience as well. With the exception of one study in which just 71% of the respondents were Caucasian (Mearns & Cain, 2003), in all the other studies 90% or higher of the sample is Caucasian (see Table 5-8).

### Table 5-8. Demographic Characteristics of Recent MBI Teacher Studies

<table>
<thead>
<tr>
<th>Study</th>
<th>School Level (n)</th>
<th>Females</th>
<th>Age</th>
<th>Teaching Experience</th>
<th>White</th>
<th>Locale</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mearns &amp; Cain (2003)</td>
<td>K-12 (86)</td>
<td>76%</td>
<td>39.52 yrs (SD=11.43)</td>
<td>13.88 yrs (SD=11.20)</td>
<td>71%</td>
<td>urban &amp; suburban</td>
<td>Southern California</td>
</tr>
<tr>
<td>Kahn, Schneider, Jenkins-Henkelman, &amp; Moyle (2006)</td>
<td>9-12 (339)</td>
<td>68%</td>
<td>NR</td>
<td>13.70 yrs (SD=10.07)</td>
<td>90%</td>
<td>NR</td>
<td>United States (41 states)</td>
</tr>
<tr>
<td>Grayson &amp; Alvarez (2008)</td>
<td>K-12 (304)</td>
<td>74%</td>
<td>42.34 yrs (SD=11.59)</td>
<td>NR</td>
<td>99%</td>
<td>rural</td>
<td>Ohio</td>
</tr>
<tr>
<td>McCarthy, Lambert, O’Donnell, &amp; Melendres (2009)</td>
<td>K-6 (451)</td>
<td>96%</td>
<td>37.77 yrs (SD=10.56)</td>
<td>12.80 yrs (SD=8.94)</td>
<td>NR</td>
<td>urban &amp; suburban</td>
<td>Southeastern United States</td>
</tr>
<tr>
<td>CTT Sample</td>
<td>PK-12 (144)</td>
<td>88%</td>
<td>38% btwn 51-60 yrs</td>
<td>40% btwn 11-20 yrs</td>
<td>90%</td>
<td>all locales</td>
<td>United States (19 states)</td>
</tr>
</tbody>
</table>

When I compare the scores of my CTT sample on the three MBI subscales to the samples of teachers in these four studies, the CTT scores are indicative of higher engagement in all but two of the twelve possible comparisons (see Table 5-9).
### Table 5-9. Comparison of CTT Scores on MBI Subscales to Other Contemporary Studies

<table>
<thead>
<tr>
<th>MBI Subscale</th>
<th>CTT Sample (n=144)</th>
<th>Mearns &amp; Cain (2003) (n=86)</th>
<th>Mean Diff</th>
<th>Std Mean Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Exhaustion</td>
<td>20.87 10.56</td>
<td>19.34 10.54</td>
<td>1.53</td>
<td>0.15</td>
</tr>
<tr>
<td>Cynicism</td>
<td>4.15 4.22</td>
<td>5.00 4.93</td>
<td>-0.85</td>
<td>-0.17</td>
</tr>
<tr>
<td>Professional Efficacy</td>
<td>6.79* 5.25</td>
<td>9.79* 7.53</td>
<td>-3.00</td>
<td>-0.40*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>CTT Sample (n=144)</th>
<th>Kahn et al. (2006) (n=339)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Exhaustion</td>
<td>20.87 10.56</td>
<td>24.39 12.04</td>
<td>-3.52</td>
<td>-0.29</td>
</tr>
<tr>
<td>Cynicism</td>
<td>4.15 4.22</td>
<td>7.23 5.75</td>
<td>-3.08</td>
<td>-0.54</td>
</tr>
<tr>
<td>Professional Efficacy</td>
<td>41.21 5.25</td>
<td>37.35 6.95</td>
<td>3.86</td>
<td>0.56</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>CTT Sample (n=144)</th>
<th>Grayson &amp; Alvarez (2008) (n=304)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Exhaustion</td>
<td>20.87 10.56</td>
<td>22.94 10.54</td>
<td>-2.07</td>
<td>-0.20</td>
</tr>
<tr>
<td>Cynicism</td>
<td>4.15 4.22</td>
<td>5.71 5.00</td>
<td>-1.56</td>
<td>-0.31</td>
</tr>
<tr>
<td>Professional Efficacy</td>
<td>41.21 5.25</td>
<td>37.84 7.03</td>
<td>3.37</td>
<td>0.48</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>CTT Sample (n=144)</th>
<th>McCarthy et al. (2009) (n=451)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Exhaustion</td>
<td>20.87 10.56</td>
<td>20.56 10.11</td>
<td>0.31</td>
<td>0.03</td>
</tr>
<tr>
<td>Cynicism</td>
<td>4.15 4.22</td>
<td>4.46 4.41</td>
<td>-0.31</td>
<td>-0.07</td>
</tr>
<tr>
<td>Professional Efficacy</td>
<td>6.79* 5.25</td>
<td>13.28* 5.33</td>
<td>-6.49</td>
<td>-1.22*</td>
</tr>
</tbody>
</table>

*Note.* Bold font indicates higher engagement on the part of the CTT respondents.

* = reverse coded

On the emotional exhaustion subscale, there are two studies (McCarthy et al., 2009; Mearns & Cain, 2003) with mean scores that are slightly lower (indicative of less emotional exhaustion and less engagement) than the CTT sample mean. On the cynicism subscale, the CTT sample mean is lower (indicative of less cynicism and higher engagement) than all four studies, and the standardized mean difference is relatively large (greater than .30) in two cases. The CTT
sample mean on the professional efficacy subscale is also higher (indicative of higher engagement) than two of the studies, with relatively large standardized mean differences (greater than .40). The other two studies reverse-coded the professional efficacy subscales; when I do the same with the CTT sample the mean is now lower, which again indicates greater engagement. The standardized mean differences are also large, with one reaching -1.22.

Since two of the studies look at just elementary school teachers (McCarthy et al., 2009) and just secondary school teachers (Kahn et al., 2006), it could be that differences are being inaccurately created or masked by comparing those studies to all of the CTT PK-12 teachers in my sample. To see if this is the case, I looked at the means on the MBI subscales for the CTT elementary school teachers in my sample only and compared them to the McCarthy et al. (2009) study. I then did the same with the secondary school teachers in my CTT sample and the Kahn et al. (2006) study (see Table 5-10).

**Table 5-10. CTT Respondents Compared to Studies at Same Grade Level**

<table>
<thead>
<tr>
<th>Subscale</th>
<th>CTT Sample (n=56)</th>
<th>McCarthy et al. (2009) (n=451)</th>
<th>Mean Diff</th>
<th>Std Mean Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Elementary</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Exhaustion</td>
<td>21.04</td>
<td>20.56</td>
<td>0.48</td>
<td>0.05</td>
</tr>
<tr>
<td>Cynicism</td>
<td>3.75</td>
<td>4.46</td>
<td>-0.71</td>
<td>-0.16</td>
</tr>
<tr>
<td>Professional Efficacy</td>
<td>5.96*</td>
<td>13.28*</td>
<td>-7.32</td>
<td>-1.37*</td>
</tr>
<tr>
<td><strong>Secondary</strong></td>
<td></td>
<td>Kahn et al. (2006) (n=339)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Exhaustion</td>
<td>20.78</td>
<td>24.39</td>
<td>-3.61</td>
<td>-0.30</td>
</tr>
<tr>
<td>Cynicism</td>
<td>4.88</td>
<td>7.23</td>
<td>-2.35</td>
<td>-0.41</td>
</tr>
<tr>
<td>Professional Efficacy</td>
<td>40.71</td>
<td>37.35</td>
<td>3.36</td>
<td>0.48</td>
</tr>
</tbody>
</table>

*Note. Bold font indicates higher engagement on the part of the CTT respondents.*

* = reverse coded
As can be seen, the overall story remains the same, with the CTT sample means indicative of higher engagement in all cases except one (the CTT elementary school teachers are just slightly more emotionally exhausted than the elementary school teachers in the McCarthy et al. study). The CTT elementary teachers in my sample are less cynical and considerably higher in their feelings of professional efficacy. The CTT secondary school teachers in the sample are more engaged than the secondary school teachers in the Kahn et al. (2006) study on all three subscales, with all the standardized mean differences being larger than .30.

Discussion

So, how do I answer the question of whether or not participation in CTT affects subsequent engagement with teaching as measured by the MBI? Given the data, it seems that the effects are mixed. As a reminder, the NWP respondents are acting as a control group, or as a proxy for the counterfactual: I want to know what a person’s level of engagement would be as measured by the MBI if they had not chosen to participate in CTT, and the NWP program was chosen for its similarity to CTT on several key components (e.g., voluntary, time-intensive).

With regards to emotional exhaustion, CTT appears to have a slight negative effect, as the results for both the unmatched and matched samples indicate that the CTT respondents have higher levels of emotional exhaustion than the NWP respondents.

The results also indicate an apparent negative effect of CTT on cynicism. While the CTT respondents were less cynical before matching, after matching they were more cynical than the NWP respondents and the effect size was the largest of the three subscales. I proposed that if secondary teachers are indeed more cynical than elementary school teachers, then matching the two groups on school level could help explain this switch in direction. Also, when I look at the characteristics of the respondents in the various subclasses, the largest negative effects of CTT
on cynicism are in the last subclasses, which contain the oldest, most experienced teachers in the study. This implies that there may be some sort of interaction between age, teaching experience, and the effect of participation in CTT on cynicism.

The third subscale of professional efficacy is the only one to indicate a positive effect of CTT on engagement. In both the matched and unmatched samples, the CTT respondents have consistently higher levels of professional efficacy than the NWP respondents, although the effect size is not large. Looking at the subclasses, the positive effects of participation in CTT relative to NWP are found in the first four subclasses, which hold the younger teachers and those in the prime of their careers, whereas the negative effects are again seen in the last two subclasses.

One issue that comes up when analyzing these results is the threat of temporal precedence. In other words, to establish a causal effect I must be able to show that the cause comes before the effect. The effects being studied here are scores on the subscales of the MBI: emotional exhaustion, cynicism, and professional efficacy, and the cause is participation in CTT. As it turns out, I cannot say with certainty that the higher emotional exhaustion I see in the CTT respondents happened after they participated in CTT. The same applies for the CTT respondents’ higher cynicism and higher professional efficacy scores. It may be that the CTT respondents were already emotionally exhausted, cynical, and feeling professionally efficacious even before they participated in CTT. My results may reflect this prior state, rather than an actual effect of participation in the PD program. Because of this threat to validity, coupled with the bias that may have been introduced by the proxy variables I discussed at the beginning of the chapter, it is more appropriate to consider my results as correlational rather than causal.

I also compared the CTT respondents in my study to the normative teaching sample of the MBI, and to other more recent studies involving K-12 teachers. The CTT respondents
consistently score higher on engagement on all three subscales, with some small exceptions on the emotional exhaustion subscale. As these are not matched samples, it is quite plausible that these differences could have been caused by other variables that were not accounted for, but the findings are at the very least suggestive in a correlational sense. It is worth noting that the CTT respondents in this study score higher on engagement than the normative sample of the MBI and samples of teachers in four other contemporary studies.

**What is the Effect of Participation in Courage to Teach on Perceived Benefits of the Professional Development Program?**

This next section of the chapter will present the results to the first part of the third research question, as it also involves an estimation of effects. The degree to which the respondents felt their participation in the PD program was beneficial or detrimental to their understanding of subject matter, professional relationships, energy and stress levels, and motivation to teach was measured using subscales of related Likert-scale items (see Table 5-11).
Table 5-11. Items in Perceived Benefits of Participation Subscales

<table>
<thead>
<tr>
<th>Item</th>
<th>Subscale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding of subject matter</td>
<td>Subject</td>
</tr>
<tr>
<td>Repertoire of teaching ideas</td>
<td>Subject</td>
</tr>
<tr>
<td>Interest in subject matter</td>
<td>Subject</td>
</tr>
<tr>
<td>Relationships with students</td>
<td>Relationships</td>
</tr>
<tr>
<td>Relationships with colleagues</td>
<td>Relationships</td>
</tr>
<tr>
<td>Relationships with principals and/or administrators</td>
<td>Relationships</td>
</tr>
<tr>
<td>Relationships with parents and community members</td>
<td>Relationships</td>
</tr>
<tr>
<td>Energy levels</td>
<td>Energy &amp; stress</td>
</tr>
<tr>
<td>Stress levels</td>
<td>Energy &amp; stress</td>
</tr>
<tr>
<td>Enjoyment of teaching</td>
<td>Teaching</td>
</tr>
<tr>
<td>Motivation to teach</td>
<td>Teaching</td>
</tr>
</tbody>
</table>

1-Very detrimental, 2-Somewhat detrimental, 3-No effect, 4-Somewhat beneficial, 5-Very beneficial

Note. The reliability of the four subscales ranges from .7-.9 (Cronbach’s alpha).

Comparisons Before Propensity Score Matching

In all four areas with the unmatched samples of PK-12 teachers, there were large differences: the NWP respondents reported their participation in NWP as being more beneficial to their subject understanding and enjoyment of teaching than the CTT respondents did, while the CTT respondents felt their participation in CTT was more beneficial to their energy/stress levels and their professional relationships than the NWP participants (see Table 5-12 and Figure 5-3).
Table 5-12. Perceived Benefits of PD Program Before Propensity Score Matching

<table>
<thead>
<tr>
<th>PD Effect Subscale</th>
<th>CTT</th>
<th></th>
<th></th>
<th>NWP</th>
<th></th>
<th></th>
<th>Mean Diff</th>
<th>Std Mean Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD Subject</td>
<td>144</td>
<td>3.61</td>
<td>0.59</td>
<td>276</td>
<td>4.66</td>
<td>0.47</td>
<td>-1.04</td>
<td>-2.21</td>
</tr>
<tr>
<td>PD Relationships</td>
<td>143</td>
<td>4.29</td>
<td>0.61</td>
<td>272</td>
<td>4.01</td>
<td>0.59</td>
<td>0.28</td>
<td><strong>0.48</strong></td>
</tr>
<tr>
<td>PD Energy</td>
<td>144</td>
<td>4.42</td>
<td>0.65</td>
<td>276</td>
<td>4.09</td>
<td>0.69</td>
<td>0.32</td>
<td><strong>0.47</strong></td>
</tr>
<tr>
<td>PD Teaching</td>
<td>143</td>
<td>4.41</td>
<td>0.65</td>
<td>275</td>
<td>4.63</td>
<td>0.60</td>
<td>-0.21</td>
<td>-0.36</td>
</tr>
</tbody>
</table>

*Note.* Bold font indicates a positive effect of participation in CTT relative to participation in NWP.

Figure 5-3. Comparison of CTT and NWP on perceived beneficial effects of participation in their respective PD program.

Comparisons After Propensity Score Matching

As all of the four subscales could influence engagement with teaching, it is appropriate to analyze them using the propensity score matched samples as well. The effect sizes are similar to those of the unmatched samples, and are also quite consistent across subclasses (see Table 5-13).
### Table 5-13. Perceived Benefits of PD Program After Propensity Score Matching

<table>
<thead>
<tr>
<th>PD Effect Subscale</th>
<th>Subclass 1</th>
<th>Subclass 2</th>
<th>Subclass 3</th>
<th>Subclass 4</th>
<th>Subclass 5</th>
<th>Subclass 6</th>
<th>Weighted Effect Size*</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD Subject</td>
<td>-1.88</td>
<td>-1.36</td>
<td>-1.49</td>
<td>-1.40</td>
<td>-0.87</td>
<td>-1.76</td>
<td>-1.44</td>
</tr>
<tr>
<td>PD Relationships</td>
<td>0.47</td>
<td>0.39</td>
<td>0.84</td>
<td>0.47</td>
<td>0.75</td>
<td>0.17</td>
<td>0.54</td>
</tr>
<tr>
<td>PD Energy</td>
<td>0.68</td>
<td>0.10</td>
<td>0.16</td>
<td>1.09</td>
<td>0.60</td>
<td>0.76</td>
<td>0.55</td>
</tr>
<tr>
<td>PD Teaching</td>
<td>-0.27</td>
<td>-0.47</td>
<td>-0.52</td>
<td>-0.10</td>
<td>0.38</td>
<td>-0.88</td>
<td>-0.27</td>
</tr>
<tr>
<td>CTT n</td>
<td>20</td>
<td>19</td>
<td>20</td>
<td>19</td>
<td>20</td>
<td>13</td>
<td>111</td>
</tr>
<tr>
<td>NWP n</td>
<td>105</td>
<td>31</td>
<td>28</td>
<td>20</td>
<td>9</td>
<td>6</td>
<td>199</td>
</tr>
</tbody>
</table>

*Note. Bold font indicates a positive effect of participation in CTT relative to participation in NWP. *Weighted Effect Size is weighted by the number of cases in the treatment (CTT).

After propensity score matching, the direction of the effects is the same, but the size of the effects is more in favor of CTT. Relative to NWP, participation in CTT still has a negative effect on respondents’ perceived benefits to their subject understanding and their motivation to teach. The size of the effects has decreased, however, and while they are still in favor of NWP the effects are no longer as large: subject understanding has dropped from -2.21 to -1.44, and motivation to teach has dropped from -0.36 to -0.27. The other two subscales of relationships and energy have seen their effect sizes increase slightly, indicating a slightly larger positive effect of CTT on these perceived benefits of participation in the PD program: the effect on relationships has risen from 0.48 to 0.54, and from 0.47 to 0.56 on energy levels. When I look at the effect sizes across each of the subclasses, there is some variation between subclasses, but the direction of the effects is consistent (with one exception on the teaching subscale, which also has the smallest effect size).
Discussion

The pattern of effects above meshes well with the stated goals of each professional development program. NWP respondents felt that their participation in the program was beneficial to their understanding of subject matter, repertoire of teaching ideas, and interest in subject matter. This makes sense, as one of the main goals of NWP is to share good teaching ideas and research on the teaching of writing. On the other hand, CTT has no specific subject focus, so it follows that in general the CTT respondents reported less of a beneficial effect on these items. While both NWP and CTT respondents felt that participation was beneficial to their enjoyment of teaching and motivation to teach, the NWP respondents reported slightly higher benefits than did the CTT respondents. This may be due to the fact that NWP respondents went back to their classrooms armed with many new teaching ideas that they may have been excited to put to use, whereas this was not a specific goal of CTT.

CTT respondents reported that their participation in the program was beneficial to their relationships with students, colleagues, administrators, and parents, while NWP respondents reported less of a benefit with respect to these relationships. Again, this makes sense, because one of the goals of CTT is to allow participants “to engage in more meaningful ways in the classroom and with their colleagues” (Fetzer Institute, 2005, p. 1). NWP does not have this as a specific goal, even though creating a professional community is a large aspect of the summer institutes. Both CTT and NWP respondents felt that their participation was beneficial to their energy levels and to their stress levels, but the CTT respondents reported more benefits in these areas than the NWP respondents. This may be due to the fact that the CTT program typically provides time for participants to relax, think, journal, and reflect, as well as provide tools that can be put to use in their day-to-day lives.
Summary of Chapter

This chapter explained the propensity score matching techniques that I used to obtain the most comparable subset of respondents from each PD program on a set of potentially confounding variables. To answer the question about whether or not participation in CTT has a subsequent effect on engagement, I compared the scores of the CTT and NWP respondents on the MBI subscales both before and after matching, and discussed the changes that occurred after the samples were matched. The results were mixed, with participation in CTT appearing to have small negative effects on engagement for emotional exhaustion and cynicism, and a small positive effect on professional efficacy. I also compared the CTT respondents to the normative sample of the MBI and other contemporary studies involving teachers, and found that the CTT respondents consistently showed higher engagement.

In the second half of the chapter, I analyzed the data on respondents’ perceived benefits of participation in the PD programs in four main areas. I found large positive effects of CTT both before and after matching on relationships and energy/stress levels, a large negative effect of CTT on subject understanding relative to NWP, and a smaller negative effect of CTT on motivation to teach. The results here were in alignment with each program’s stated goals.

This chapter includes all the results that are an attempt to estimate causal effects. Although there are some weaknesses to my data and study design that prevent me from conclusively stating that I found causal effects, the results are at least suggestive and correlational. In Chapter Six and Chapter Seven I will present the remainder of my findings; these are not intended to estimate effects and are presented in a qualitative, exploratory manner.
CHAPTER 6. EXPLORATORY DATA REGARDING RETENTION

In the preceding chapter, I presented my findings related to the engagement portion of my primary research question:

Research Question #2: Does participation in Courage to Teach have an effect on subsequent engagement with and retention in teaching on participants?

The second half of this question still remains to be answered, but as I analyzed the data, several issues became apparent. First of all, I do not have the data that would be required for a systematic examination of retention. This would require longitudinal administrative records of teachers’ movements in and out of the profession. My primary subset consists of respondents who are currently PK-12 teachers, so obviously none of them have left the field of teaching. There is a very small subset of respondents who have left teaching since their participation in the PD program, but this group is not large enough to be eligible for any sort of matching techniques. With the PK-12 teachers, I do have a few items that probe their intentions to remain in teaching, but these are single items rather than a subscale. Given the fact that I do not have a high quality instrument with which to measure retention, and also the weaknesses present in my survey data, I cannot answer the question of whether or not participation in CTT has an effect on subsequent retention.

I can, however, use the data that I have to look for correlations. All comparisons involving the subset of PK-12 teachers are done with the unmatched samples, rather than the matched samples, so there may be other factors confounding the results, and no effects are being estimated. These items do provide some exploratory data on how committed the respondents in the study are to teaching and if their participation influenced any decisions they were making about their teaching careers.
No Longer Teaching

There is a small portion of respondents who were not teaching at the time they completed the survey. For CTT, out of 256 respondents who answered the question about whether or not they were currently teaching, 27 (11%) said they were not currently teaching. For NWP, 57 (13%) out of 443 respondents were not currently teaching. Because there are so few respondents in this category, they are not broken out here by whether or not they had been primarily PK-12 teachers, college/university instructors, administrators, or in some other role at the time they completed the PD program. In order to have been kept in the survey sample, however, they had to be teaching as part of their responsibilities regardless of their primary role.

This subset of the sample was asked about their current employment status, whether or not they were still involved in the field of education, and their reasons for leaving teaching (see Table 6-1).

| Table 6-1. Status of Respondents Not Currently Teaching and Their Reasons for Leaving |
|--------------------------------------------------|----------|----------|----------|----------|
| Status of Those Not Currently Teaching            | CTT      |         | NWP      |         |
|                                                   | n  | %      | n   | %      |
| Still involved in education                       |    |        |      |        |
| Still working - in the field of education         | 11 | 40.7   | 18  | 32.1   |
| Currently retired - still volunteering in education | 4  | 14.8   | 8   | 14.3   |
| Currently retired - still working for pay in education | 3  | 11.1   | 9   | 16.1   |
| Student - in the field of education               | 0  | 0.0    | 6   | 10.7   |
| Not involved in education                         |    |        |      |        |
| Currently retired - no longer involved in education | 5  | 18.5   | 1   | 1.8    |
| Raising a family                                 | 3  | 11.1   | 6   | 10.7   |
| Other                                            | 1  | 3.7    | 7   | 12.5   |
| Taking care of parents/relatives                  | 0  | 0.0    | 1   | 1.8    |
| Main Reason Left Teaching                         |    |        |      |        |
| To pursue a position other than that of a teacher | 7  | 29.2   | 10  | 18.2   |
| To retire                                        | 6  | 25.0   | 18  | 32.7   |
| Pregnancy/child rearing                          | 3  | 12.5   | 10  | 18.2   |
| School staffing action (e.g., lay-off, reorganization) | 2  | 8.3    | 3   | 5.5    |
| Dissatisfied with previous school or teaching assignment | 2  | 8.3    | 2   | 3.6    |
| Health                                           | 1  | 4.2    | 2   | 3.6    |
| For better salary or benefits                     | 1  | 4.2    | 2   | 3.6    |
| To take courses to improve career opps WITHIN education | 1  | 4.2    | 6   | 10.9   |
| Other family reasons                             | 1  | 4.2    | 2   | 3.6    |

127
More of the NWP respondents who are not currently teaching are still involved in the field of education in some way (73%) than the CTT respondents (67%). There are more CTT respondents, however, who are still working in the field of education and have not retired (41%, compared to 32% for NWP). But there are also more CTT respondents (19%) who have retired and are no longer involved with the field of education than NWP respondents (only 2%). Approximately equal percentages from both PD programs (11% each) are raising families. Interestingly, 11% of the NWP respondents are students in the field of education, whereas none of the CTT respondents fall into this category.

When asked about the main reasons they left teaching, the top three reasons for both groups were to pursue a job other than teaching, to retire, or to raise a family. The most important reason for the CTT respondents to leave teaching was actually to pursue a position other than that of a teacher (29%, compared to 18% for NWP). For the NWP respondents, the most important reason for leaving was to retire (33%, versus 25% for CTT). This may be because the NWP respondents in this subset are much older than the NWP sample as a whole. In fact, 39% of the NWP respondents who are no longer teaching are 61 years or older, compared to only 8% of the NWP sample as a whole. This subset of the NWP sample also has even more respondents in the category of 61 years or older (39%) than the CTT subset, which has 29%; again, this is opposite of the sample as a whole, in which the CTT respondents are considerably older than the NWP respondents.

**Intentions to Remain in Teaching**

There are a few items on the survey that provide a sense of what the PK-12 teachers’ intentions are regarding staying in or leaving teaching (see Table 6-2).
Table 6-2. Intentions to Remain in Teaching

<table>
<thead>
<tr>
<th>How Long Plan to Remain in Teaching</th>
<th>CTT n</th>
<th>%</th>
<th>NWP n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>As long as I am able</td>
<td>76</td>
<td>52.8</td>
<td>163</td>
<td>59.1</td>
</tr>
<tr>
<td>Until eligible for retirement or social security benefits</td>
<td>38</td>
<td>26.4</td>
<td>66</td>
<td>23.9</td>
</tr>
<tr>
<td>Until a specific life event occurs (e.g., parenthood)</td>
<td>3</td>
<td>2.1</td>
<td>8</td>
<td>2.9</td>
</tr>
<tr>
<td>Until a more desirable job opportunity comes along</td>
<td>5</td>
<td>3.5</td>
<td>9</td>
<td>3.3</td>
</tr>
<tr>
<td>Definitely plan to leave teaching as soon as I can</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Undecided at this time</td>
<td>22</td>
<td>15.3</td>
<td>30</td>
<td>10.9</td>
</tr>
<tr>
<td>Applied For Job to Leave Position of Teacher</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No, have not applied for a job</td>
<td>127</td>
<td>90.1</td>
<td>262</td>
<td>94.9</td>
</tr>
<tr>
<td>Yes, have applied for a job</td>
<td>14</td>
<td>9.9</td>
<td>14</td>
<td>5.1</td>
</tr>
<tr>
<td>Would Leave Teaching if Found Higher Paying Job</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>73</td>
<td>51.0</td>
<td>172</td>
<td>63.2</td>
</tr>
<tr>
<td>Somewhat disagree</td>
<td>53</td>
<td>37.1</td>
<td>66</td>
<td>24.3</td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>13</td>
<td>9.1</td>
<td>21</td>
<td>7.7</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>4</td>
<td>2.8</td>
<td>13</td>
<td>4.8</td>
</tr>
</tbody>
</table>

When asked how long they intended to remain in teaching, more than half of the respondents in both PD programs said that they would stay as long as they were able to do so. More of the NWP respondents (59%) than the CTT respondents (53%) said they would teach as long as they could. Very few in either group said that they would leave if a more desirable job opportunity came up, and although one option was “Definitely plan to leave teaching as soon as I can,” no one in either PD program chose this response.

Another item that may be related to intentions to leave teaching is this one: In the last 12 months, have you applied for a job in an attempt to leave the position of a teacher? Answer “yes” if you have applied for non-teaching positions in the field of education (e.g. administrator) or a position outside the field of education. Answer “no” if you have only applied for summer jobs or other positions to supplement your income from teaching. Although a small number, twice as many CTT respondents (10%) answered “yes” to this question than NWP respondents (5%). It may be that some of those who answered “yes” were still planning to stay in the field of education, but there is no way to be certain.
A third item on the survey asks whether or not respondents agree or disagree with the following statement: *If I could get a higher paying job I’d leave teaching as soon as possible.* If I combine the “somewhat disagree” and “strongly disagree” responses, the two PD programs are almost exactly even. However, the NWP respondents are slightly more definite in their feelings that they would not leave teaching for a higher paying job than the CTT respondents.

The problem with all three of these items, from a measurement point of view, is that they are single items. It would be much better if I had multiple items that could be combined into a subscale, but unfortunately these items all have different scales and combining them would be difficult. Also, I originally intended to compare my CTT respondents to data from the most recent SASS and TFS studies, but that data is no longer available to the public.

There is a study done by the National Education Association (2003c) in which respondents were asked about their plans to remain in teaching. In the National Education Association (NEA) study, a systematic sample of 2,826 teachers was chosen from random districts across the country; 1,467 usable replies were received for a response rate of 67%. While all the options on the NEA item are not exactly the same as on my survey, there are some definite similarities (see Table 6-3).

<table>
<thead>
<tr>
<th>How Long Plan to Remain in Teaching</th>
<th>CTT n</th>
<th>%</th>
<th>Plans to Remain in Teaching</th>
<th>NEA n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>As long as I am able</td>
<td>76</td>
<td>53</td>
<td>Continue until required to retire</td>
<td>NR</td>
<td>16</td>
</tr>
<tr>
<td>Until eligible for retirement or social security benefits</td>
<td>38</td>
<td>26</td>
<td>Continue until eligible for retirement</td>
<td>NR</td>
<td>46</td>
</tr>
<tr>
<td>Until a specific life event occurs (e.g., parenthood, marriage)</td>
<td>3</td>
<td>2</td>
<td>(No equivalent)</td>
<td>NR</td>
<td>na</td>
</tr>
<tr>
<td>Until a more desirable job opportunity comes along</td>
<td>5</td>
<td>4</td>
<td>Probably continue unless something better comes along</td>
<td>NR</td>
<td>11</td>
</tr>
<tr>
<td>Undecided at this time</td>
<td>22</td>
<td>15</td>
<td>Undecided at this time</td>
<td>NR</td>
<td>22</td>
</tr>
<tr>
<td>Definitely plan to leave teaching as soon as I can</td>
<td>0</td>
<td>0</td>
<td>Definitely plan to leave teaching as soon as possible</td>
<td>NR</td>
<td>5</td>
</tr>
</tbody>
</table>
Over three-fourths (79%) of the CTT respondents plan to stay in teaching either as long as they are able or until they are eligible for retirement or social security benefits. This compares to 62% of the NEA sample who plan to remain in the field either until they are eligible for retirement or forced to retire. There are also more NEA respondents who would consider leaving if a better opportunity came along (11%, compared to 4% for CTT), more who are undecided about their plans (22%, compared to 15% for CTT), and 5% who plan to leave teaching as soon as possible, whereas none of the CTT respondents in my study chose this option.

These data suggest that on the whole, both the CTT and the NWP respondents are very committed to teaching. The CTT respondents in my study are also more stable in their intentions to remain in teaching than the sample of teachers in the NEA study. On all three of the single survey items related to intentions to remain in teaching, the NWP respondents are slightly more definite regarding their plans than the CTT respondents, but the differences are small.

**Perceived Effects of Professional Development Program on Retention Decisions**

I asked respondents whether or not their participation in the PD program had any effect on subsequent retention decisions they may have been making, and to explain this effect if there were one. This question gives a sense of whether participants were more or less satisfied with teaching at the time they participated in the PD program, and if they feel their participation helped them make decisions about staying in teaching or leaving the field.

**How Open-Ended Responses Were Coded**

This question was one of two open-ended responses in the survey. To code the responses to this question, I sorted them first by PD program, and then by how the previous yes/no question had been answered: *Has your participation in [CTT or NWP] had any effect on your decision to remain in, leave, or return to teaching?* The yes/no question was asked in this way so as not to
be leading (in terms of a “right” answer), and also because of CTT’s philosophy of helping all participants find the best path for them, even if that means leaving the profession. The open-ended question was worded as follows: If “yes” [to the question above], briefly explain the effect that your participation in [CTT or NWP] has had on your decision to remain in, leave, or return to teaching.

Once the responses were sorted, I read through them group by group, writing down all the broad themes and key phrases I noticed and using those to create a set of codes. I resorted the responses so that they were in a random order based on PD program and whether or not any effect had been attributed to the PD program, and hid this identifying information so that it would not bias my coding of the responses. After coding was complete, I unhid the identifiers and analyzed the frequencies of the codes by the respondents of the two PD programs.

In coding qualitative data there are always multiple ways to interpret responses. If three other people coded these responses, they would most likely come up with three different results (although with some broad themes in common). In fact, if I coded the data again I would probably come up with somewhat different results. When reporting results, I looked for differences of 10% or more on those responses made by at least one-tenth of the respondents, and differences twice as large when the code applied to less than one-tenth of the respondents. While somewhat arbitrary, these guidelines should help to reassure the reader that I am trying to remove as much bias as possible from my interpretations, descriptive as they may be.

**Perceived Effects on Decisions to Remain in or Leave Teaching**

Eighty percent of the CTT respondents answered yes to Has your participation in [CTT or NWP] had any effect on your decision to remain in, leave, or return to teaching? compared to 70% of the NWP sample (see Table 6-4).
Table 6-4. Self-Reported Effects on Respondents’ Decisions to Remain In, Leave, or Return to Teaching

<table>
<thead>
<tr>
<th>Effect</th>
<th>CTT n</th>
<th>CTT %</th>
<th>NWP n</th>
<th>NWP %</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD Had Effect on Retention Decision</td>
<td>115</td>
<td>79.9</td>
<td>193</td>
<td>69.9</td>
</tr>
<tr>
<td>Specific Effects on Retention Decisions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would have left teaching without PD</td>
<td>12</td>
<td>8.3</td>
<td>4</td>
<td>1.4</td>
</tr>
<tr>
<td>Helped them continue teaching</td>
<td>11</td>
<td>7.6</td>
<td>23</td>
<td>8.3</td>
</tr>
<tr>
<td>Changed positions</td>
<td>11</td>
<td>7.6</td>
<td>11</td>
<td>4.0</td>
</tr>
<tr>
<td>Took time off then returned to teaching</td>
<td>4</td>
<td>2.8</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Never Planned to Leave Teaching</td>
<td>8</td>
<td>5.6</td>
<td>16</td>
<td>5.8</td>
</tr>
<tr>
<td>No Effect on Retention Decisions</td>
<td>7</td>
<td>4.9</td>
<td>11</td>
<td>4.0</td>
</tr>
<tr>
<td>Perseverance in Difficult Situations</td>
<td>22</td>
<td>15.3</td>
<td>8</td>
<td>2.9</td>
</tr>
<tr>
<td>Not the Only One to Feel/Think This Way</td>
<td>10</td>
<td>6.9</td>
<td>4</td>
<td>1.4</td>
</tr>
</tbody>
</table>

The open-ended responses shed some light on what state of mind respondents were in when they decided to participate in the PD program. In the open-ended responses, 26% of the CTT respondents specifically stated ways in which their participation had effected their decision to remain in, leave, or return to teaching, compared to 14% of the NWP respondents. Double the amount of CTT respondents (8%) credited the program with helping them to change positions as NWP respondents (4%). For example, this CTT respondent said, “It gave me the confidence to take a risk and try something new in education. I’m loving my new position” (Elementary, 11-15 years’ experience, participated in 2000). Equal percentages in both groups (8% in each) were coded as making comments about the PD program helping them continue to teach (even though they were not considering leaving). This response from an NWP respondent is representative: “The participants and leaders in the institute inspire me to continue teaching. Their dedication and goals for students remind me of the importance of giving my students the best education I

---

13 For each respondent quoted here, I have provided the level at which they teach, the number of years of experience they had at the time of their participation in the program, and the year that they began their participation in the program. Unless otherwise indicated, all respondents are female. Age and race/ethnicity are not included in order to protect the respondents’ confidentiality.
can create” (Secondary, 6-10 years’ experience, participated in 2007). A small group (3%) of the CTT respondents said that their participation had helped them decide to take time off from teaching and then return to it, whereas none of the NWP respondents made similar comments. As this CTT participant put it, “Being involved in CTT helped me get through another difficult year of teaching, and then helped with my decision to take a year off—the best thing I ever did. I am now back with renewed energy and focus and have made some changes that invigorate me” (Middle school, 16-20 years’ experience, participated in 2005).

Another relatively large discrepancy, even though the overall numbers are small, lay in the fact that there were CTT respondents (8%) who had been seriously thinking of leaving teaching when they began the program, but credited it with keeping them in teaching. This compares to just 1% of the NWP respondents. For example, this CTT teacher said:

When I began the retreat cycle I truly felt that I needed to move on to something else and I began the retreats as a sort of a ‘self-reflective’ journey of discovery as to what to do next. However, by mid way through I felt very strongly that I was indeed making a difference … the CTT retreats affirmed my self-confidence in the teacher that I was and continue to be. (Secondary, 6-10 years’ experience, participated in 2005)

A few CTT respondents (4%) also provided explicit statements of feeling burned out, as opposed to 1% of the NWP respondents: “When I began my first CTT retreat series, I was seriously questioning whether I was ‘burning out’ – feeling discouraged by how hard I was working, and questioning whether I should consider a career change” (Elementary, 16-20 years’ experience, participated in 2000).
Fifteen percent of the CTT sample, compared to only 3% of the NWP sample, credited the program with helping them persevere through difficult situations: “These retreats helped me to deal with a work place that has low morale, and try to find ways to assist improvement in our staff’s morale where I could” (Elementary, 16-20 years’ experience, participated in 2007, male), or “[CTT provides] encouragement that enables me to continue working in a very difficult, often violent school environment” (Secondary, 11-15 years’ experience, participated in 2008). Another 7% of CTT respondents said that CTT helped them feel “less alone” or realize that they were “not the only one” to think, act, or feel the way they did: “I discovered that most teachers face what I was facing and there was no fault in me during times of frustration, feeling inadequate or wondering what in the world was I doing” (Elementary, 3-5 years’ experience, participated in 2003). By comparison, only 1% of the NWP respondents made similar comments. These comments, although not made by a large number of the CTT respondents, do leave the impression that there is at least a small percentage who are feeling discouraged about teaching when they join the CTT program, and are perhaps looking for renewal or a way to increase their engagement.

No Effect on Retention Decisions

It is worth noting that 10% of the respondents from both CTT and NWP made a point of specifically saying that their participation in the PD program had no effect on any decisions to stay, leave, or remain in teaching; or that they had not been planning to leave in the first place. Twenty and thirty percent respectively of the CTT and NWP respondents already said that their participation had no effect on any retention decisions on the yes/no question, and yet many of them explained that even though they had not planned to leave teaching, their participation in the PD program had other benefits (these will be discussed in Chapter Seven).
Discussion

Since this was a question about retention, what stands out for me is that the CTT respondents are much more specific about the effects of the PD program on any decisions they made regarding retention. There are also more CTT respondents who specifically said that they were thinking about leaving teaching or who credited the PD program with helping them persevere through a difficult situation than NWP respondents. This suggests that when they signed up for the retreat series, at least a portion of the CTT respondents may have been less enthused about teaching and thinking more about leaving when they began the program than the NWP respondents. Even if this is the case, it is not a large percentage of the CTT respondents, so this is not meant to imply that CTT is a program intended only for “burned out” teachers. But, there is some evidence that more of the CTT teachers may have been feeling this way than the NWP teachers, and in CTT they may have found a safe place to explore these questions and emotions.

Summary of Chapter

This chapter presented exploratory data on the issue of retention. It suggests that all the respondents in my study are very committed to teaching, but the CTT respondents may be slightly less so than the NWP respondents. It also appears that a small percentage of the CTT respondents were questioning their career choice when they began the program, and may have been seeking renewal in some form. In the next chapter, I will analyze my final research question, which asks about the most valuable aspects of participation in CTT or NWP from the perspective of the respondents.
CHAPTER 7. MOST VALUABLE ASPECTS OF PARTICIPATION IN PROFESSIONAL DEVELOPMENT PROGRAMS

My third research question asked whether or not there were differences in how the respondents perceived the benefits of their participation in the professional development program on a variety of issues. This chapter will discuss the second sub question:

Research Question #3b: Are there differences between the CTT and NWP participants with regards to their perceptions of the program’s most valuable aspects?

I will answer this question using the responses to the two open-ended questions in the survey in an attempt to get a sense of what respondents find most valuable about their participation. Because I am not attempting to establish an effect, but rather looking for more exploratory, descriptive data, the propensity score matched sample is not used here. In the previous chapter, I explained in detail how I coded the first question blind; the second open-ended question was coded in the same manner.

The first question asked respondents to explain the effects that their participation in the PD program had on any retention decisions they may have been making: *Briefly explain the effect that your participation in [CTT or NWP] has had on your decision to remain in, leave, or return to teaching.* Whether they had been thinking about leaving teaching or not, most all of the respondents answered this question by talking about the aspects of their participation that had been most meaningful to them. The second question specifically asked respondents to share the most valuable part of their CTT or NWP experience: *As you look back on your [CTT retreat series or NWP summer institute] experience, what stands out as the most valuable part to you?*

Within each PD program, the responses to both questions revolved around similar themes, so they are synthesized here. Between the two PD programs, however, there was
relatively little overlap in their responses. I will examine first those responses that were made fairly frequently by both groups, second those that were made primarily by CTT respondents, and third those that were specific mostly to the NWP respondents (see Appendix G for tables of the most frequently coded themes for each question).

**Responses Heard Frequently From Both CTT and NWP Respondents**

While there were distinct differences between what the two groups of respondents had to say about their participation in the PD programs, in a few key areas both groups were likely to make the same types of comments.

**Importance of Community and People**

For both open-ended questions, the most frequently heard responses revolved around people and community. I expected that because of the explicit focus in the program on building relationships, the CTT respondents would be more likely to say that community had helped them make decisions about whether or not to stay in teaching. However, it was the opposite: 33% of the NWP respondents specifically said that the people they had met and the communities that had formed had had an effect on their decisions to stay in or leave teaching, compared to 20% of the CTT respondents.

Both the CTT and NWP respondents agreed that the most valuable aspects of the programs were the people they met and the communities formed, but again the NWP respondents were more likely to have this as a response. In fact, almost half of the NWP respondents (48%) said this as opposed to 40% of the CTT respondents. It is true that the largest category of NWP comments in this area revolved around professional connections, while the majority of the CTT comments were about personal connections. For example, the NWP respondents said they valued things like: “The growing network of NWP colleagues across the district, state, and national
levels” (Secondary, 6-10 years’ experience, participated in 1993, male14), “Meeting colleagues who teach at all levels all over the state who are committed to the same principles” (Secondary, 25 years’ or more experience, year of participation unknown), and “Being in the company of like-minded, high-achieving fellow teachers really re-energized me and gave me a stronger faith in my teaching practice… I feel like I’m part of a professional community that encourages its members to really make a difference in education” (Secondary, 1-2 years’ experience, participated in 2008). The CTT respondents, on the other hand, were more likely to make comments such as these: “The part I value the most is the friendships and bonds I made during the CTT retreats” (Elementary, 3-5 years’ experience, participated in 2005), “Experiencing open, honest communication about personal feelings and ideas, with other teachers, was hugely beneficial” (Elementary, 16-20 years’ experience, participated in 2007), and “The Courage to Teach Retreat series provided me with… a wonderful set of friends” (Elementary, 16-20 years’ experience, participated in 2007, male).

The Gift of Time

Another theme that emerged for both groups was time – the time to relax, get away, time for one’s self, time to write or focus on one’s practice. The CTT respondents were more than twice as likely to mention time (30%) than the NWP respondents (13%) as one of the most valuable parts of the experience, but even for the NWP respondents this was the fifth most common code. Within this broad category of time, two-thirds of the CTT comments were about the opportunity to have time for self-reflection or to relax: “The time for reflection - getting to know who I really am and what makes me tick” (Middle school, 11-15 years’ experience,

14 For each respondent quoted here, I have provided the level at which they teach, the number of years of experience they had at the time of their participation in the program, and the year that they began their participation in the program. Unless otherwise indicated, all respondents are female. Age and race/ethnicity are not included in order to protect the respondents’ confidentiality.
participated in 2008), “Time away to reflect about all of me not just the teacher in me” (Elementary, 16-20 years’ experience, participated in 2003), and “Quiet time to REST. I got to take a nap! Then, I had the mental energy to really focus on how much I am committed to teaching and renew my spirit as well” (Elementary, 11-15 years’ experience, participated in 2007). On the other hand, two-thirds of the NWP comments about time as a valuable aspect of the program were about spending time on their own writing: “Being allowed—expected even—to carve out time to research a topic of value and write daily” (Middle school, 1-2 years’ experience, participated in 2006), “Time to write!” (Middle school, 6-10 years’ experience, participated in 2007), and “The most valuable part for me was the opportunity to write, and to support other teachers in their writing process as well as be supported myself” (Elementary, 21-25 years’ experience, participated in 1995).

**Personal and Professional Rejuvenation**

With regards to the first question about perceived effects on retention, respondents from both programs said that they felt rejuvenated in some way as a result of their participation. The NWP respondents had more responses in this category (29%, compared to 21% for CTT), and were most likely to talk about a professional rejuvenation of their teaching on some level, followed by renewed energy or enthusiasm. They made comments such as, “It was like getting a second wind in my professional life” (Elementary, 6-10 years’ experience, participated in 1998), “It gave me more encouragement and enthusiasm toward the content area, as well as giving me more useful tools and strategies to implement in my classroom” (Secondary, 1-2 years’ experience, participated in 2008), and “The Summer Institute is the best professional development I have ever done. It has reinvigorated my teaching and made me a more focused and proficient educator” (Middle school, 11-15 years’ experience, participated in 2006).
The CTT respondents, on the other hand, were more likely to refer to rejuvenation on both the personal and the professional level than the NWP respondents. As this CTT respondent put it: “It has reinforced my enthusiasm for living. As the self discovery process inherent in CTT evolved, so did my energy/interest for teaching” (Elementary, 21-25 years’ experience, participated in 2005, male). Another said, “[CTT] provided an opportunity to renew myself – physically, mentally and emotionally…It was a time to reflect on my motivation to remain in the field of education, and renew my commitment to becoming the best teacher that I can become” (Elementary, 11-15 years’ experience, participated in 2007).

On the second question about the most valuable part of the experience, however, more CTT respondents mentioned some form of rejuvenation (11%) than the NWP respondents (2%). They said things like, “The relaxing collaborative atmosphere of positive peers re-energized me. I believe all teachers should attend these retreats with consistent follow-up retreats to let the feeling stay” (Secondary, 25 years’ or more experience, participated in 2007) and “Stepping back from the daily requirements of the classroom and re-connecting with myself inwardly; restorative in this sense” (Secondary, 21-25 years’ experience, participated in 2007).

**Increased Confidence**

Although the numbers were not large, 5% of the CTT respondents said they had become more confident as a result of their participation in the program, and so did 9% of the NWP respondents—not quite double—and that this had helped them make decisions about staying in or leaving teaching. One CTT respondent stated that “‘Teaching who we are’ is a very clarifying, empowering, and validating credo that helped me to gain confidence and energy in the classroom” (Secondary, 16-20 years’ experience, participated in 2007). An NWP respondent
said: “An effect the Summer Institute has had on my career is that I feel more confident in my abilities, ideas, and lesson plans” (Secondary, 6-10 years’ experience, participated in 2008).

This theme was also present, again not in large numbers, in the responses to the question about the most valuable aspect of the experience (4% in CTT and 5% in NWP). For example, the CTT respondents talked about, “The validation I feel from other experienced professionals that I get so rarely from my administration, colleagues, and parents at my school” (Secondary, 3-5 years’ experience, participated in 2006, male), and “Being more confident in myself and valuing my expertise” (Elementary, 25 years or more of experience, participated in 2005). The NWP respondents remarked on, “The confidence I gained about my own ideas and my ability to teach” (Middle school, 3-5 years’ experience, participated in 2006) and “The affirmation I received from Institute colleagues for my expertise, creativity, and skills was encouraging and refreshing” (Secondary, 16-20 years’ experience, participated in 2004).

Safe Environment

Again this was not a comment made by large numbers of respondents in either group, but another theme that emerged was the idea of both programs providing a safe environment for their participants. This concept was mentioned by 7% of the CTT respondents and by 4% of the NWP respondents, in comments such as these: “Having a supportive group of colleagues with whom I could gather. Feeling like there was a ‘safe place’ to question whether or not this was the right profession for me” (CTT, Elementary, 6-10 years’ experience, participated in 2006), and “We were provided the opportunity to plan and implement new ideas in a safe and supportive environment” (NWP, Elementary, 21-25 years’ experience, participated in 1995).
Responses Made Primarily By CTT Respondents

There was a set of responses that were made almost entirely by the CTT respondents, and much less frequently by the NWP respondents. These are discussed below.

Rediscovered or Affirmed Teaching as a Calling

A full quarter (26%) of the CTT respondents on the first question said that CTT had helped them either rediscover or affirm their calling to be a teacher: they mentioned a love of teaching, a passion for it, something they were meant to do, or a way in which they were making a difference in people’s lives. In contrast, only 4% of the NWP respondents mentioned similar themes. The CTT respondents made comments such as these: “My participation allowed me to reflect on why I am a teacher and why I love it so much. It reinforced all of my positive feelings about teaching and gave me renewed energy and passion for my work” (Elementary, 16-20 years’ experience, participated in 2001); “The retreat helped me look into myself and realize that I was there not for ‘just a job’, but because I wanted to be able to give something back to my community” (Secondary, 3-5 years’ experience, participated in 1999); “I realized what it is about teaching that I love so much: that being with kids every day in this way takes me out of my head and into my heart, and requires me to be my ‘best self.’ I realized that this work, as hard as it is, and as much of my time and energy as it takes, is what keeps me energized and alive and passionate” (Elementary, 16-20 years’ experience, participated in 2000). CTT had either reminded them or confirmed that they were in the right profession. It is interesting to note that 10% of the CTT respondents said they “rediscovered” their calling, which implies they had lost it somehow to begin with. Only one NWP respondent reported feeling the same way.
Reflection

Fifteen percent of the CTT respondents mentioned “reflection” in some manner (e.g., having the opportunity to spend more time reflecting, realizing its importance), compared to just 3% of the NWP respondents in the first question. And almost 30% said that it was one of the most valuable aspects of the PD program, while again only 3% of the NWP respondents said the same thing. For example, the CTT respondents said: “Teachers are almost never given a chance to reflect; it’s like a soothing balm to the spirit. This was profound for my life as well as my teaching—to pause and take stock before moving again forward” (Middle school, 16-20 years’ experience, participated in 2005), “It taught me the (ongoing) value of reflection” (Elementary, 11-15 years’ experience, participated in 2003), “I really enjoyed the quiet weekend away from the noise of life to reflect on my choice of a career” (Secondary, 21-25 years’ experience, participated in 2004), and “Courage has made me reflect and see the big picture and purpose” (Elementary, 6-10 years’ experience, participated in 2002).

Opportunities for Inner Work

It may be that the reason fewer CTT respondents brought up community compared to the NWP respondents is because the self-reflection opportunities in a CTT retreat series have a more salient effect on respondents’ retention-related decisions. Only the CTT respondents commented on learning about themselves or doing inner work with regards to how the program had affected their decision to stay in or leave teaching. Almost one quarter (24%) of the CTT sample did so, compared to only 1% of the NWP sample, and for NWP these were primarily comments related to learning about themselves as writers. On the other hand, 17% of the CTT group talked about the “self” in some way, and 7% talked more specifically about the soul, doing inner work or healing, or spiritual renewal. For example, CTT respondents said things such as: “Courage to
Teach nourishes the soul and spirit. By being refreshed and nourished I have more
enthusiasm/energy for teaching and more to give my students” (Secondary, 25 years or more of
experience, participated in 2006), “Not one day passes without some thought of my own inner
self and what I project to my students and others on my faculty” (Middle school, 16-20 years’
experience, participated in 1996), or “Courage to Teach has helped me to look within for the
answers I am seeking about teaching. I see how strongly that who I am as a teacher is influenced
by who I am as a person” (Elementary, 1-2 years’ experience, participated in 2007). Comments
and phrases about the “soul and spirit” and “inner self” were not present in the NWP responses
to this question.

The theme of inner work was continued and expanded on by the CTT respondents in
answer to the second question. Twenty-five percent of the CTT respondents again said that
engaging in inner work and “teaching who we are” was one of the most valuable parts of their
experience, as opposed to only 3% of the NWP respondents. Both of these concepts are present
in these comments by CTT respondents: “I learned about who I am at the core of my being and
that in turn reminded me who I am as a teacher” (Elementary, 3-5 years’ experience, participated
in 2008), “Reflection on the person I am and what I bring to teaching” (Secondary, 25 years or
more of experience, participated in 1998), “Knowledge of the connection between my inner life
and outer work – and most important, the quality of presence which I now bring to my teaching”
(Elementary, 16-20 years’ experience, participated in 1999). Interestingly (and perhaps as a
testament to coding blind), two NWP respondents were coded as making comments related to the
idea of “we teach who we are,” which is definitely a CTT concept.
Clearness Committee and Other CTT Activities

Respondents from both programs mentioned specific activities that they found particularly valuable. For CTT respondents, the activity most often mentioned was the clearness committee (14%). The clearness committee is a Quaker tradition that brings a group of people together to help a selected “focus person” reach clarity on a question or issue of his or her own choosing. It operates under the belief that on issues of life and vocation, each person has “an inward source of authority that does not need to be prodded with external answers and ‘fixes’ but needs only to be given a chance to speak and be heard” (M. Jackson & Jackson, 2002, p. 302). For this reason, committee members are only allowed to ask honest, open questions to which they do not know the answer or have an idea of what the focus person “should” do. For committee members, participation can be powerful, as they experience what it is like to listen deeply to someone, putting their own inner dialogue aside and focusing completely on a person without trying to fix them (M. Jackson & Jackson, 2002; Palmer et al., 2001). And it was clearly a powerful experience for the CTT respondents in this study, judging from these comments: “The ‘clearness committee’ experience was/is/can be extraordinary” (Middle school, 16-20 years’ experience, participated in 2005), “Clearness [committee]…is an amazing gift” (Elementary, 3-5 years’ experience, participated in 2005), and “I was amazed by the power of Clearness Committees, both as a focus person and as a committee member” (Elementary, 16-20 years’ experience, participated in 2000).

After the clearness committee, the CTT respondents were most likely to bring up “third things” (the poems and other small readings used in the retreats as conversation starters and food for thought) (6%), the circle of trust created in the retreats (5%), and the emphasis on silence and opportunities for journaling (4% each).
Deep Conversations

The CTT respondents are more likely to mention having deep, meaningful, personal conversations or connections with the other members of their group (12%) as a valuable aspect, whereas only 1% of the NWP respondents made similar remarks. The CTT respondents said that they valued, “Sharing deep feelings about being human with others who may or may not understand and/or feel the same way” (Middle school, 25 years or more of experience, participated in 2005, male), “Having the opportunity to talk about real issues with people who actually understand because they live it too” (Secondary, 11-15 years’ experience, participated in 2008), and “Sharing deep conversations with colleagues. I still meet with CTT colleagues to engage in rich discourse about why I do what I do” (Elementary, 11-15 years’ experience, year of participation unknown).

Learning to Take Better Care of Themselves

A small group of CTT respondents were also more likely to say that the program had helped them take better care of themselves personally (8%) than the NWP respondents (2%), and that this helped them make retention decisions about teaching. They made comments such as “CTT has helped me focus and prioritize on my personal and professional needs” (Elementary, 16-20 years’ experience, participated in 2005) and “CTT helps me to remember to take care of myself first and to honor myself as a person and not just work work work. I feel like when I take the time to remember the things I’ve learned there I am a much better teacher” (Elementary, 6-10 years’ experience, participated in 2003).

The CTT respondents (4%) were also the only ones to say that this was one of the most valuable aspects of their participation. They commented on, “Getting the opportunity to take care of myself before taking care of everyone else – family as well as students” (Middle school, 21-25
years’ experience, participated in 2001), and “Teaching myself to stay balanced emotionally and spiritually, by slowing down, being reflective and taking good care of myself and my soul” (Secondary, 6-10 years’ experience, participated in 2005).

Responses Made Mostly By NWP Respondents

The comments made most frequently by the NWP respondents were quite different from those made most frequently by the CTT respondents, revolving around writing, new ideas, walking in their students’ shoes, research, and leadership opportunities.

Personal Writing

Given the program’s focus, it is not surprising that 15% of the NWP group talked about writing in response to the first question: “The Summer Institute…confirmed my belief in the power and importance of writing in the life of every student and, indeed, every person. I greatly enjoyed the writing we did and learned a lot from it” (Secondary, 16-20 years’ experience, participated in 2004). For the NWP respondents, it was also the second most valuable aspect mentioned overall (30%), behind people and community. Many respondents talked about realizing they were a writer, improving as a writer, and recognizing their love for writing and their own writing skills, as these comments attest: “Becoming a writer and being able to share that purpose and enthusiasm with my students” (Elementary, 11-15 years’ experience, participated in 1989), “My personal writing stands out as the most valuable part of the Summer Institute because it gave me a chance to practice an art form that was intimidating to me” (Secondary, 6-10 years’ experience, participated in 2008), “Improvement in my own knowledge and ability as a writer” (School level unknown, 16-20 years’ experience, participated in 2001), and “I truly came to love writing” (Secondary, 1-2 years’ experience, participated in 2008).
New Teaching Ideas

Another striking difference is that the NWP respondents talked about all the new ideas they had gained from their participation in response to both questions (21% and 30%, respectively), while only one CTT respondent mentioned this theme. Their comments were very enthusiastic: “When I attended the summer institute, I couldn’t wait to get inside of a classroom to teach what had been taught to me. I loved it!” (Secondary, 6-10 years’ experience, participated in 2006), “NWP infused my teaching with new ideas…” (Middle school, 3-5 years’ experience, participated in 2008), “I walked away with an incredible treasure chest of ideas to use in my classroom and a new source of energy to draw from in approaching my classes” (Middle school, 6-10 years’ experience, participated in 2007), “Learning new ideas from other teachers – I’ve used them in my teaching ever since” (Secondary, 6-10 years’ experience, participated in 2002), and “The fact that the lessons were immediately applicable and easily changed into something that could be used in the classroom was extremely valuable” (Middle school, 1-2 years’ experience, participated in 2006).

Became Better Teachers

Another 10% of the NWP respondents said they had become better teachers thanks to the program, compared to 4% of the CTT respondents. This was a frequent comment from those who did not credit the program with any effect on retention decisions, but did feel that their participation in the program had been valuable. For example, this NWP respondent said: “It hasn’t necessarily affected my decision to stay in teaching, but…I feel like a much better and more effective teacher because of what I learned in the summer institute” (Middle school, 1-2 years’ experience, participated in 2008). Other NWP respondents did feel that becoming a better teacher had helped them with retention decisions or their satisfaction with teaching, saying: “The
techniques I learned in the Summer Institute have definitely made me a better writing teacher and have made the teaching of writing more rewarding for me, as I have seen improved skills in my students’ written work” (Secondary, 11-15 years’ experience, participated in 2004) and “All the writing project classes and workshops make me a better teacher and make me want to keep learning with my students” (Middle school, 1-2 years’ experience, participated in 1993).

Sharing Ideas and Learning With Other Teachers

Among the NWP respondents, a theme also emerged in the second question about the importance of sharing ideas and learning with other teachers in the program (20%, compared to only 3% of CTT respondents). Since one of the primary activities of the summer institutes is for each participant to give a teaching demonstration to the rest of the group, the propensity of NWP respondents to mention this theme is not surprising. Many of their comments about the most valuable part of the program reflected this aspect of the summer institutes: “Sharing ideas with colleagues to create beautiful lessons” (Middle school, 1-2 years’ experience, participated in 2005, male), “The fun of learning together” (Secondary, 16-20 years’ experience, participated in 2001), “Being with and learning from other teachers who are enthusiastic to share ideas and lessons with you was a wonderful part of the institute” (Elementary, 3-5 years’ experience, participated in 2007). A few NWP respondents (8%) also mentioned similar topics in their responses to the first question, such as this one: “What has stayed with me the longest is the importance of learning from each other” (Secondary, 16-20 years’ experience, participated in 1989, male).

Walking In Their Students’ Shoes

There were a small percentage of comments in the first question about how the respondents were now more student-focused in their teaching (7% for NWP, and 2% for CTT).
These responses came primarily from the NWP respondents, who talked not only about focusing more on their students’ needs but also about helping their students become writers: “It helped me focus on students more than myself” (Middle school, 6-10 years’ experience, participated in 1996, male) and “WP has refocused my attention on empowering my students through understanding the purpose of writing and giving them the skills to do so effectively” (Elementary, 11-15 years’ experience, participated in 2008).

In the second question, 11% of the NWP respondents made comments about how valuable it was for them to be in the role of student: “We didn’t just hear people talk about skills and techniques, but we actually used them in our daily activities…It emphasized for me the importance of teachers putting themselves in the same situation of their students” (Secondary, 16-20 years’ experience, participated in 1989, male), “Being asked to go through the learning process and the writing process in a way that mirrors what I am asking my students to do in my classroom was extremely eye opening” (Secondary, 1-2 years’ experience, participated in 2008), “I discovered that I am not the only one whose palms get sweaty when asked to share my own writing. I got closer to my student writers when confronted with sharing with my peers” (Middle school, 16-20 years’ experience, participated in 2005), and “Working through ideas, daybooks, activities myself. Because I have been a ‘student,’ I know what my students are experiencing” (Secondary, 3-5 years’ experience, participated in 2003). In contrast, none of the CTT respondents made any comments along these lines.

Research Opportunities

The opportunity to read, conduct, or apply research is another theme that is only found in the NWP comments regarding most valuable aspects (6% of the NWP respondents talked about research, whereas none of the CTT respondents did). The NWP respondents appreciated things
such as, “The supportive environment to conduct self-motivated action research” (Elementary, 3-5 years’ experience, participated in 2006), “The Summer Institute engaged me in professional research and reading. This effort has made me an independent learner of my craft” (Secondary, 1-2 years’ experience, participated in 2005, male), and “I became committed to reading research—and every summer have chosen a book on teaching to read and focus my efforts for the coming year” (Secondary, 1-2 years’ experience, participated in 1994).

**Taking on Leadership Roles and Pursuing Advanced Degrees**

There was a small group of NWP respondents (7%) who said that they had taken on additional leadership roles either at their schools or through NWP as a result of their participation, compared to 1% of the CTT respondents. For example, this NWP respondent said, “It has impacted the role that I have at my school. Now, I am the reading/writing coordinator and provide professional development at the school – this is exciting and rewarding” (Elementary, 21-25 years’ experience, participated in 2002). Another commented, “It has made me want to be a leader in my district. Last year I led a literacy group with a colleague, and we wrote a grant for…our teachers to get funding for literacy certification. We got the grant, and our writing cohort started this week” (Elementary, 6-10 years’ experience, participated in 2008).

There was also a group who attributed their decisions to pursue advanced degrees or National Board Certification to participation in the professional development program. Although the numbers were quite small, this was again more likely to be the case for the NWP respondents (4%) than the CTT respondents (1%). As these two NWP respondents said, “Being in the institute inspired me to pursue a master’s degree and National Board Certification through my local university” (Middle school, 6-10 years’ experience, participated in 2008), and “My participation in the Summer Institute is what set me on the path to get my Masters degree in
Reading/Language Arts, which has been my passion ever since” (Elementary, 6-10 years’ experience, participated in 1997).

**Teaching Demonstrations and Writing Groups**

Not as many NWP respondents commented on specific activities, but those who did made equal mention of the teaching demonstrations and the writing groups (4% each). For example, “I loved seeing other’s demos and the way the ones that clicked for me have stayed with me in a profound way” (Middle school, 11-15 years’ experience, participated in 1996), and “Being in a peer writing group was extremely beneficial for me as a writer, and I think has positively impacted my students’ writing as well” (Secondary, 11-15 years’ experience, participated in 2004).

**Discussion**

While these results are primarily exploratory and descriptive, they make it clear that the respondents felt they received very different sorts of benefits from their participation in the two PD programs. Overall, the CTT respondents’ comments to both open-ended questions revolved around much more personal, self-reflective, “soul and role” areas such as rediscovering their calling to teach; opportunities for reflection, self-understanding, and inner work; participating in clearness committees; having deep conversations with people in their cohorts; and learning to take better care of themselves. On the other hand, the main focus of the NWP respondents’ comments was on teaching and writing: the chance to do their own personal writing; the new ideas they gained; becoming better teachers; sharing ideas and learning from others; walking in their students’ shoes; the opportunities to conduct research; and the inspiration to pursue leadership roles or advanced degrees.
Even in the areas where there was some overlap in their comments, such as the importance of the people they met and the communities formed, there were still differences in tone. The CTT respondents’ comments were frequently about personal aspects of these relationships, whereas the NWP respondents’ comments were much more related to the professional side. This was true for the theme of rejuvenation as well, in which the NWP respondents talked more about a professional rejuvenation of their teaching, while the CTT respondents often brought up more personal aspects of renewal. And finally, in the code about “time,” the CTT respondents appreciated the time for self-reflection and to relax, as opposed to the NWP respondents, who primarily appreciated the time to spend writing.

Summary of Chapter

This chapter was devoted to the second part of the third research question, in which I asked about what the respondents of the two PD programs perceived as the most valuable parts of their experiences. There were distinct differences between the groups, and these differences were very much in line with each program’s stated goals and philosophies. According to the NWP participants, the most valuable aspects of the program are the benefits to their own personal writing, their teaching, and their professional resources and connections. These contrast rather sharply with the most valuable aspects of the program for the CTT respondents, which focus on the personal connections made and the variety of opportunities for self-reflection. These responses indicate that not only are there differences between the two programs, but the programs’ goals are being transmitted to their participants, and their participants are finding the programs valuable in the ways in which they were intended. In the final chapter, I will synthesize all my findings and discuss implications and directions for future research.
CHAPTER 8. DISCUSSION AND CONCLUSIONS

Major Findings

At the beginning of this study, I posed three main research questions: (a) what are the demographic characteristics of the teachers who choose to participate in a transformative professional development program such as Courage to Teach, (b) does participation in CTT have a subsequent effect on teacher engagement and retention, and (c) what are some of the perceived benefits of participation expressed by the CTT and National Writing Project respondents. In this chapter, I will summarize and discuss the major findings for each of these questions and consider implications and directions for future research.

Characteristics of CTT Respondents

*CTT respondents are older, have more teaching experience, and are closer to retirement than NWP respondents or the nationally representative sample from NCES.

The most interesting finding demographically, and also one of the most unequivocal, is that CTT appears to attract teachers who are older, have more teaching experience, and are on average closer to retirement. This is true when the CTT respondents are compared to either the NWP respondents or a nationally representative sample of K-12 teachers from the National Center for Education Statistics’ Schools and Staffing Surveys. While there are certainly plenty of teachers who participate in CTT early on in their careers, there is a definite trend towards more mature teachers.

Effects on Engagement

*Participation in CTT appears to have a small positive effect (increased engagement) on professional efficacy relative to participation in NWP.

Participation in CTT has a small but positive effect on professional efficacy, indicating increased engagement, relative to participation in NWP. CTT’s positive effect may be related to...
the program’s emphasis on the self, and the connection between the personal and the professional, or “soul and role,” that is so fundamental to the retreats. Through the opportunities for self-reflection and understanding that are provided, the CTT participants are often reminded that the work they do as teachers has greater meaning, both to themselves and others.

Professional efficacy encompasses just that concept: teachers having confidence that their time and energy are being well spent, and that they are indeed making a difference (Maslach, 2003; Maslach et al., 2001). The ability to regulate moods and emotions has also been shown in two studies to correlate with higher levels of professional efficacy among K-12 teachers in the United States (Mearns & Cain, 2003) and secondary school teachers in Britain (Brackett et al., 2010).

Again, the emphasis on self-understanding, listening, seeing oneself and others clearly that is found in the CTT retreats would lend itself to better regulation of emotions, both one’s own and those of others, which can help to explain the positive effect on professional efficacy.

*Participation in CTT appears to have a small negative effect (decreased levels of engagement) on emotional exhaustion and cynicism relative to participation in NWP.*

The fact that CTT appears to have a small positive effect on professional engagement relative to NWP, and a small negative effect on emotional exhaustion and cynicism, may not be as contradictory as it seems. The research on burnout and engagement supports the theory that the latter two subscales are related, while professional efficacy typically develops separately (Maslach, 1993; Maslach et al., 1996; Maslach & Leiter, 1999, 2008).

In Chapter Three, when I introduced the National Writing Project and the existing research on the program, I noted that NWP is known for the professional learning communities and networks that it creates. CTT also focuses on relationships and communities, but on both the professional and the personal aspects, and my hypotheses regarding emotional exhaustion and cynicism rested in part on the belief that this emphasis on the personal would lead to higher
engagement in these areas. However, in Chapter Seven, the NWP respondents were actually more likely than the CTT respondents to bring up the people they met and the communities formed through the program as one of the most valuable aspects of their participation, albeit through a professional lens. It may be that NWP’s emphasis on professional relationships is just as effective, if not more so, than CTT’s emphasis on the professional and the personal.

Another possible explanation is that CTT’s emphasis on the personal aspect of relationships and on self-reflection heightens participants’ awareness of how they interact with students as well as their own emotions. This may make them more likely to recognize that they may have been treating students impersonally, or that they themselves are feeling emotionally drained. In other words, participation in CTT may lead to a more introspective, honest appraisal of one’s own attitudes and emotions. While this increased self-awareness may lead to higher scores on the MBI subscales of cynicism and emotional exhaustion, it may not necessarily mean that the CTT respondents are actually less engaged in these areas.

There are some other structural features of the NWP experience that may also influence the results. For example, one of the hallmarks of the NWP summer institutes is that teachers teach other teachers. What this means in practice is that teachers become students again, both for the purpose of teaching demonstrations and also in writing groups. As some NWP respondents mentioned (see Chapter Seven), walking in their students’ shoes gave them more empathy for their students, which may translate into reduced cynicism—the ability to look at students positively, give them the benefit of the doubt, and see things from their point of view.

Regarding emotional exhaustion, the NWP respondents reported that a very valuable aspect of their participation was the infusion of new teaching ideas they received, which in many cases energized them or got them excited to try out these new activities in their classrooms. It
seems reasonable that these feelings could lead to decreased emotional exhaustion—feelings of enthusiasm and wanting to get to work in the morning.

It is important to note, however, that just because the CTT respondents in my study have scores indicative of less engagement on emotional exhaustion and cynicism than the NWP respondents does not mean they are in an absolute sense. As the next finding attests, the CTT respondents are considerably more engaged relative to national norms.

*The CTT respondents are more engaged on all three subscales relative to the normative sample of the MBI and four other contemporary studies.*

I compared my CTT respondents to the normative sample of K-12 teachers who took the MBI, and to the results of four other contemporary studies involving K-12 teachers. While none of these samples are representative, they are good proxies for a third comparison group: teachers who do not choose to participate in a time-intensive professional development program such as CTT or NWP. I hypothesized that the CTT respondents would be more engaged than this third comparison group on all three subscales, and these predictions were not only borne out consistently on two of the subscales (cynicism and professional efficacy), but the differences were quite large. On the third subscale of emotional exhaustion, the CTT respondents were either more engaged or just slightly less engaged than the comparison groups. This suggests that participation in CTT has, at the least, a stronger correlation with reduced cynicism and higher levels of professional efficacy compared to teachers who do not participate in professional development, and a slightly less pronounced correlation with reduced emotional exhaustion. Together with the finding that participation in CTT appears to have a positive effect on professional efficacy relative to participation in NWP, the even larger differences between CTT respondents and the MBI normative sample/contemporary studies strongly suggest that there may be a real correlation between CTT and professional efficacy.
Effects on Perceived Benefits of Participation

*Participation in CTT appears to have a medium-sized positive effect on respondents’ perceived benefits to their professional relationships and their energy/stress levels, a large negative effect relative to NWP on subject understanding, and a small negative effect on motivation to teach.

The data suggest that participation in CTT has a medium-sized, positive effect on respondents’ perceived benefits of participation to their professional relationships and energy/stress levels. Given the program’s emphasis on developing safe spaces and trusting relationships, and the opportunities provided for reflection and relaxation, these results seem logical. On the other hand, there is a large negative effect relative to the NWP respondents on subject understanding, and a small negative effect on motivation to teach. Again, as CTT does not have a specific content focus, it is not surprising that it would not match the perceived benefits of NWP in this area, but even so the CTT respondents do report slight benefits to their subject understanding. The NWP’s focus on the teaching of writing may also explain the higher motivation to teach and enjoyment of teaching that the NWP respondents exhibit: they are excited to put all the new ideas they have gained into action.

Exploratory Data Regarding Retention

*Both CTT and NWP respondents appear to be committed to teaching in the long-term. CTT respondents are slightly less committed than NWP respondents, but more committed than a national sample of K-12 teachers.

When it comes to their current intentions regarding teaching, it is clear that the majority of both CTT and NWP respondents have no intention of leaving teaching any time soon. When asked how long they plan to remain in the position of a teacher, not a single one chose the option of “Definitely plan to leave teaching as soon as I can,” and only a very small percentage from each program said they would leave if a better opportunity came along. Very few respondents from either program have applied for jobs recently in an attempt to leave teaching. And well over three-fourths of the PK-12 teachers in both CTT and NWP disagreed with the statement that they
would leave teaching if they could find a higher paying job. Two-thirds of the respondents from both professional development programs are also satisfied with their salary, as compared to just under half of teachers in the NCES nationally representative sample. Overall, the NWP respondents are slightly more definite in their responses on these items than the CTT respondents, but the differences are not large; these are also single item measures on the unmatched respondents, so should be considered descriptive in nature. The desire to remain in teaching exhibited by the CTT PK-12 teachers who responded to this survey is also stronger than that of a sample of American teachers surveyed by the National Education Association. It is possible that the teachers who chose to respond to the survey are particularly committed to teaching, but I do not have sufficient data on the non-respondents to determine whether or not this is the case.

*A small group of CTT respondents were more likely to question whether or not teaching was the right career for them when they began the program.*

At the time of their participation in the PD program, a small portion of the CTT respondents are more likely to be questioning whether teaching is the right career choice than the NWP teachers. Judging from CTT respondents’ comments, participation in the retreat series helps them clarify retention decisions and renew their commitment to teaching, decide to change positions, take time off, and even leave in some cases. It is important to add that deciding to leave the profession of teaching is not necessarily a negative outcome by CTT standards, especially if by doing so the participant is able to realize more congruency between their personal and professional lives.

**Most Valuable Aspects of Participation**

*The CTT and NWP respondents show distinct differences in terms of what they find most valuable about participating in the professional development programs; their responses reflect the goals of the programs.*
The CTT respondents’ answers to the questions about the most valuable part of their experience and any effects that their participation had on retention decisions were primarily related to personal connections and support; opportunities for self-understanding and inner work; teaching as an extension of who they are as a person; time to relax, reflect, and renew their energy and spirit; and rediscovering or reaffirming their calling to teach. The NWP respondents’ comments, on the other hand, focused on professional connections and resources, the new ideas they gained for use in their classrooms, how valuable it had been to share and learn with other teachers, the opportunities to pursue their own personal writing, and the feelings of rejuvenation that resulted from all of the above. Even in the areas where there was some overlap, such as the fact that both groups greatly valued the people they met and the connections they had formed, there were still differences. In this case, the CTT respondents were much more likely to focus on personal connections they had made, while the NWP respondents talked primarily in terms of professional relationships. While the responses from the two groups are quite different in substance and style, they are very well aligned with the goals of each respective PD program.

**Lessons Learned Regarding Data Collection and Study Design**

As I went through the process of collecting and analyzing my data, weaknesses to my study design and survey instrument became apparent. For example, because of the retrospective nature of the study and my desire to survey teachers who had participated in their PD program as long as a decade or two ago, I did not attempt (nor was it particularly feasible) to gather data on the respondents before they participated in the PD program. But now, as I look at the results, I cannot say with any certainty that the outcomes I see are due to the programs themselves.
The Issue of Temporal Precedence

As I stated in Chapter Five, temporal precedence is a serious threat to my validity in that I cannot show that the “cause” (participation in CTT) took place before the “effect” (engagement). In other words, I do not know for certain that participation in CTT is what caused the apparent negative effect on emotional exhaustion and cynicism and the positive effect on professional efficacy. I also do not know what the respondents’ baseline levels of engagement were on the MBI subscales. It could be, for example, that the CTT respondents were more emotionally exhausted, cynical, and professionally efficacious before the PD program began than the NWP respondents and participation in the program had no effect. Or, perhaps the CTT respondents were actually significantly more exhausted, cynical, and/or efficacious before participation, but participating in the program helped narrow these gaps. As it stands, my current study does not provide the data needed to determine which, if any, of these scenarios are correct.

A Proposed Follow-Up Study

One possible way to remedy this issue of temporal precedence would be to conduct a follow-up study with a pre/post design, so that data could be collected both before and after (and possibly during) participation in the PD programs. While I would lose the retrospective aspect, and also probably the large-scale nature of the study, I would gain the ability to more definitively answer whether or not teachers who choose to participate in CTT are more or less engaged on any of the three subscales to begin with than teachers who participate in NWP or teachers who do not participate in professional development at all.

Even if it turns out that my CTT participants are more or less engaged to begin with, the study could still provide valuable data on whether or not their engagement levels increase or decrease after their participation in the PD program, with or without a control group. This would
help to answer the question of whether or not CTT has an effect on subsequent engagement and retention, and also if the effect is consistent across all three subscales of the MBI.

Another advantage of a pre/post design is that I could better avoid the issues with having to use proxy variables for some of the potentially confounding variables in my propensity score matching. By asking directly about these potential confounders before participation in the PD program began (school and student level characteristics), I could be sure that I was not controlling for variables that were themselves influenced by the treatment.

A follow-up study could also attempt to mitigate the issue of possible omitted confounding variables. While I covered variables related to teacher demographics, school characteristics, and student characteristics thoroughly, the design of the study did not allow me to ask about other potentially confounding variables such as the quality of respondents’ relationships with colleagues, students, or administrators before participation. In addition, if pre/post data were collected on such variables this could help specifically determine the mechanisms through which participation in the professional development programs affects engagement.

A pre/post design such as the one I am envisioning would only be successful if I had full buy-in from the retreat facilitators and site directors involved in the study. An advantage would be that, with the help and encouragement of the facilitators and site directors, the response rate could be considerably higher than what it was for the online survey I conducted. In fact, the NWP has all their participants at the end of each summer institute complete an evaluation, and the response rate is traditionally close to 90% (Stokes & St. John, 2008). I might not be able to reach that rate, as the survey required for this proposed study is much more of a time commitment, but it would certainly be higher than the response rate in my current study.
If the percentage of non-respondents is low, then the issue of non-respondent bias is minimized (a systematic pattern that explains why some people responded and others did not; for example, in my study it is quite possible that only those who are most engaged or positive about the PD program responded). In any study there are bound to be those who do not respond, but with the help of the facilitators, it should be possible to identify non-respondents and more easily gather data to determine whether or not there is a systematic bias. The ability to generalize the results to CTT and NWP alumni as a whole would also be increased, especially if the retreats/sites were purposefully sampled. Ideally, this proposed study would reach a higher number of respondents, minimize non-respondent bias, and increase generalizability.

The study I have conducted for this dissertation attempted to estimate causal effects of participation in CTT on engagement, as measured by the MBI. Due to the threat of temporal precedence and bias that may have been introduced through proxy or omitted variables, it is more appropriate to consider my results as correlational, rather than causal; suggestive rather than conclusive. Nevertheless, the results do raise some interesting questions and implications for further research.

**Implications and Directions for Future Research**

**CTT Appeals to More Experienced Teachers**

Taken together, it seems that for those who responded to my survey, CTT does not appeal equally to all teachers, but rather draws more heavily from those who are more advanced in their careers. The NWP also has a niche, in that it attracts a disproportionate number of teachers who are at earlier stages in their career, and this has been confirmed by data collected from summer institute participants in evaluation studies (Stokes & St. John, 2008). If CTT facilitators wish to expand the program’s appeal, then this information could help them do so, or it could be used to
better tailor the program to their primary audience (if it indeed generalizes to CTT participants as a whole). It may be that CTT’s focus on “soul and role” has particular appeal to teachers who have already devoted a considerable portion of their careers to teaching, have invested a great deal of their time and energy, and are searching for ways to maintain their engagement with the profession. It would be interesting to further pursue this question of why teachers with these characteristics appear to be attracted to the CTT program.

**The Impact of Level of Involvement on Engagement**

In Chapter Five I mentioned that the NWP respondents in my study rate themselves as being more involved with the PD program after their participation than the CTT respondents, but it did not seem appropriate to include level of involvement as a potentially confounding variable. I did say that I could run the propensity score matching again as a sensitivity analysis to see if the results change, and I have done so (see Appendix H). When level of involvement is included in the propensity score matching, the CTT respondents are even more emotionally exhausted and not as professionally efficacious relative to the NWP respondents. On the cynicism subscale, the CTT respondents are still more cynical than the NWP respondents, but the difference is not as great as it was when level of involvement was not included in the propensity score matching. This means that relative to the NWP respondents, the CTT respondents are less engaged to a greater degree on two out of the three subscales after matching with level of involvement.

This suggests that there is an influence of level of involvement on the results, but it appears to be in the opposite direction from what I would have expected. If the CTT respondents were less involved before matching, but then equally as involved as the NWP respondents after matching, I would expect that the CTT respondents would look more engaged relative to the NWP respondents. Or, at the very least, the gap would begin to close, but this was not the case in
two out of the three MBI subscales. Attempting to determine why level of involvement had this effect on CTT would be a good topic for future study.

**Engagement Levels of CTT Participants Before Participation**

The results of my study suggest that CTT has a small positive effect on professional efficacy and a small negative effect on emotional exhaustion and cynicism relative to the NWP respondents. The CTT respondents also appear to be consistently more engaged with regards to professional efficacy and cynicism, and slightly less so with regards to emotional exhaustion, than the normative sample of the MBI and four other contemporary studies. But these results raise a new question: are the CTT respondents more or less engaged *before* their participation in the retreat series? The follow-up study that I described in the previous section could be one way to begin to answer this question.

**Interaction Between Participation in CTT and Emotional Exhaustion**

It would also be interesting to examine the CTT respondents more closely with respect to emotional exhaustion, as that seems to be the subscale on which they are the least engaged, relative to the NWP respondents, the MBI normative sample, and two of the contemporary studies. If I could first establish whether or not the CTT respondents are particularly emotionally exhausted before their participation in the program, the next step would be to determine why this is the case.

**Content Focus and Effective Professional Development**

In Chapter Two, I laid out the consensus on what constitutes effective professional development, and suggested that the requirement for content focus may make it too narrow. While the effects are not large, CTT does appear to have a small positive effect on one of the subscales of the MBI, and small negative effects on the other two subscales. This is in
comparison to a highly regarded, time-tested program—the National Writing Project—which meets all of the consensus requirements for effective professional development. The small effects and the fact that one was in favor of CTT lend support to my argument that we may be limiting professional development opportunities for teachers if we only consider those programs with a specific content focus to be effective. But the question of why CTT respondents are more emotionally exhausted and cynical relative to the NWP respondents is also raised, and this would be worthy of future study.

In Chapter Two, I also adapted Desimone’s (2009) conceptual framework to fit transformative professional development, and argued that increased teacher engagement could ultimately lead to increased student learning. While this would present even more design challenges, a logical next step is to try to establish a link between participation in CTT and increased student learning.

**Elements of Professional Development Most Effective at Increasing Engagement**

Some of the similarities between NWP and CTT that made NWP a good control group may have confounded the results. Anecdotally, NWP teacher consultants have reported that they found their participation in the summer institutes to be personally transformative (Lieberman & Wood, 2001). In addition, although NWP summer institutes are not designed to be transformative professional development according to the definition used in this study (explicit focus on the *who* that teaches, rather than the *what* or the *how*), many of the practices of NWP summer institutes parallel those used in CTT retreat programs. NWP teacher consultants report that the summer institutes provide a venue in which community is formed, trust is developed, and emotional support provided, resulting in more energy and enthusiasm for teaching, and the chance to explore their own identity as writers, students, and teachers (Lieberman & Wood,
Geil

2001). The emphasis on creating a safe, trusting community in which teachers can share their teaching ideas and personal writing with each other, the opportunity to walk in their students’ shoes, and the emphasis on developing personally as a writer all combine to create a transformative experience for some teachers.

These similarities bring up the question of which elements of professional development are most effective at increasing engagement. While the qualitative data suggest that the CTT participants and the NWP participants have very different experiences, there are still areas of overlap. Perhaps an emphasis on community, whether professional or personal or both, has the potential to translate into increased engagement regardless of whether the primary focus is on a specific content area or on self-understanding. Further research could unpack which elements of professional development, transformative or not, are most successful at increasing engagement.

CTT Respondents Searching For Renewal

While hardly definitive, the results to the open-ended questions and the items related to retention suggest that a larger percentage of the CTT respondents are looking for some type of renewal when they begin the PD program. The numbers were small, but more CTT respondents were questioning their career choice before their participation, talking about how CTT helped them persevere through difficult situations, or made them feel less alone. They talked more about the time to relax and reflect being a valuable aspect of their experience, at a rate of more than double that of the NWP respondents, implying that they were more in need of it to begin with. There was a group of CTT respondents who credited the program with helping them to rediscover teaching as a calling, which implies that they had previously lost this feeling. Participation in CTT had a positive effect on perceived benefits to their energy and stress levels.
relative to participation in NWP, which also suggests that the CTT respondents may have been looking for this type of renewal when they signed up.

Compared to CTT respondents as a whole, this is a relatively small percentage, so it does not mean that CTT is only for “burned out” teachers. On the contrary, the majority of the CTT respondents are very committed to teaching as a career, satisfied with their salaries, and planning to stay in the field as long as possible. But for those teachers who are looking for a safe place to question whether or not they are in the right career, CTT provides a valuable outlet. This also lends support to the idea that perhaps the CTT respondents are generally more emotionally exhausted and cynical before participation in the PD program, but future research is need to determine if this is the case.

**Opportunities for Participants to Stay Connected**

The results of my study suggest that, relative to a comparable program in terms of structure, time, and intensity, CTT is not as successful at raising engagement on two out of three MBI subscales. One way in which CTT might be able to improve is by establishing more avenues through which participants can stay involved after the retreat series is complete. NWP has a very well established system that enables teacher consultants to stay connected with the program. In fact, they are expected to stay involved for at least a year after their participation in the summer institute. Because NWP participants can go back and get a “shot” of energy and community and ideas, this undoubtedly helps them to keep their engagement levels high. CTT, on the other hand, has no such system in place, but I think this would be worth considering.

NWP’s network of teachers is also one of its strengths, as the respondents in my study eloquently attest. Many CTT participants are the only ones at their schools to participate in the program, and it is more difficult for them to continue that sense of community once their retreat
series is over. If CTT could more systematically promote networking and community after the retreat series are finished, this could be very beneficial to participants.

**Summary and Closing Thoughts**

At the conclusion of this study, I can now paint a picture of what the CTT respondents look like compared to the NWP respondents and a nationally representative sample. I set a very high bar for CTT to pass in terms of whether or not it has an effect on engagement relative to NWP, and it passed the bar on one of the MBI subscales and fell short on two others. Given the high standards set by NWP, I view this as lending some support to my belief that professional development programs without an emphasis on content have the potential to increase engagement in at least some areas. And although the samples are not matched or contemporary, the CTT respondents do appear to be equally or more engaged on all three subscales compared to the normative sample of the MBI and four other contemporary studies. Some questions that arose include whether or not the cause preceded the effect, what the level of engagement on each of the MBI subscales was for respondents before their participation in the programs, and whether proxy variables and/or omitted variables may be confounding the results. I have described a potential follow-up study that could help to answer these and other questions.

It is important to point out that both PD programs being studied here are of high quality and clear value to their participants in a number of ways. In the crush of numbers and effect sizes and control groups, this can sometimes get lost. As these NWP participants said, “What I’ve learned about being a better teacher of writing (in all subject areas) has made me look forward to each new day and year” (Elementary, 11-15 years’ experience, participated in 1989), “The Writing Project provided a network of educators, professional development opportunities, resources for implementing my ideas at my school, continuous learning and creativity. All of
these inspired my teaching for over 25 years” (Secondary, 6-10 years’ experience, participated in 1983), and “Participating in the Summer Institute provided me with deeper satisfaction about teaching than any other professional development training I have been involved with” (Elementary, 11-15 years’ experience, participated in 2008).

The participants in CTT are equally appreciative, as these remarks show:

“The CTT retreat series was one of the greatest transformational experiences in my life” (Elementary, 11-15 years’ experience, participated in 1999), “To become a member of a community of teachers who learn how to open our hearts to each other, sharing heartaches, disappointments, tears, concerns, delights, laughter, triumphs, and the small sorrows and joys of daily life is to receive support, understanding, and encouragement I have found in no other community” (Elementary, 21-25 years’ experience, participated in 2008), “Courage work has both energized me and made me relax again in the classroom, and this past school year is the best, most successful and satisfying year I have ever had in 16 years of teaching. My connections with students were authentic and lasting, and their understanding of the subject matter was better as a result” (Secondary, 16-20 years’ experience, participated in 2008), “The CTT addresses an important aspect of teaching that a grad school/certification program doesn’t address – the psychological and emotional element of this work. To be an effective teacher, one MUST attend to the inner life/soul, and the CTT program helped me to understand and nurture this aspect of my professional life” (Elementary, 6-10 years’ experience, participated in 2005), and “My Courage to Teach retreat experience 13 years ago informs my way of being a teacher to this day…No other inservice I have ever attended has been so powerful or so long lasting in terms of its benefit to me and my relationship with my students” (Middle school, 16-20 years’ experience, participated in 1996).
As these comments make abundantly clear, participation in either one of these two professional development programs is something of great value to these teachers, their students, and the schools and communities in which they work. It is my hope that both will find ways to weather the difficult financial times in which we find ourselves and continue to make a difference in teachers’ lives.
REFERENCES


Chadsey, T. (2010). Personal e-mail communication with Kimberly Geil on December 16-17, 2010.


Maslach, C., Jackson, S. E., & Schwab, R. L. (1986). Maslach Burnout Inventory-Educators Survey (MBI-ES). Mountain View: CPP, Inc. All rights reserved.


## APPENDIX A: DETAILS OF EXISTING RESEARCH STUDIES RELATED TO TEACHER ENGAGEMENT AND RETENTION

<table>
<thead>
<tr>
<th>Author(s) &amp; Date</th>
<th>Title</th>
<th>Type of Study/Data Collection</th>
<th># of Participants/Studies (Response Rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achinstein, Ogawa, Sexton, &amp; Freitas (2010)</td>
<td>Retaining Teachers of Color: A Pressing Problem and a Potential Strategy for &quot;Hard-to-Staff&quot; Schools</td>
<td>Review of research on retention and recruitment of teachers of color conducted primarily in the United States.</td>
<td>70 studies (NA)</td>
</tr>
<tr>
<td>Byrne (1991)</td>
<td>Burnout: Investigating the Impact of Background Variables for Elementary, Intermediate, Secondary, and University Educators</td>
<td>Survey data collected from K-12 teachers and university instructors in Canada. K-12 schools were randomly selected and teachers self-selected into the study; university instructors were randomly selected.</td>
<td>642 (NR)</td>
</tr>
<tr>
<td>Cohn &amp; Kottkamp (1993)</td>
<td>Teachers: The Missing Voice in Education</td>
<td>Survey and interview data collected from a sample of K-12 teachers in Florida stratified by schools in district and randomized within schools.</td>
<td>2,718 surveys (64%); 73 interviews (73%)</td>
</tr>
<tr>
<td>Day, Stobart, Sammons, Kington, Gu, Smees, Mujtaba (2006)</td>
<td>Variations in Teachers’ Work, Lives and Effectiveness</td>
<td>Interview data collected from K-12 teachers and value-added analyses of students' academic progress over three years. Sample drawn from 7 nationally representative local authorities (districts) in England.</td>
<td>300 (NR)</td>
</tr>
<tr>
<td>DeHeus &amp; Diekstra (1999)</td>
<td>Do Teachers Burn Out More Easily? A Comparison of Teachers with Other Social Professions on Work Stress and Burnout Symptoms</td>
<td>Survey data collected from a self-selected sample of K-12 teachers and other professionals in the Netherlands. Used an abridged version of the MBI.</td>
<td>1,000+ (NR)</td>
</tr>
</tbody>
</table>

(Continued)
<table>
<thead>
<tr>
<th>Author(s) &amp; Date</th>
<th>Title</th>
<th>Type of Study/Data Collection</th>
<th># of Participants/ Studies (Response Rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friedman (1991)</td>
<td>High- and Low-Burnout Schools: School Culture Aspects of Teacher Burnout</td>
<td>Interviews and observations of 5 randomly selected teachers from 12 extremely &quot;high&quot; or &quot;low&quot; burnout schools in Israel, as determined by a modified version of the MBI administered to 1,597 randomly selected teachers in 78 elementary schools.</td>
<td>60 (NR)</td>
</tr>
<tr>
<td>Grayson &amp; Alvarez (2008)</td>
<td>School Climate Factors Relating to Teacher Burnout: A Mediator Model</td>
<td>Survey data collected from a self-selected sample of K-12 teachers in 17 rural schools in Ohio; principals of the schools self-selected their school into the study.</td>
<td>320 (60%)</td>
</tr>
<tr>
<td>Hakanen, Bakker, &amp; Schaufeli (2006)</td>
<td>Burnout and Work Engagement Among Teachers</td>
<td>Survey data collected from K-12 and vocational school teachers. All teachers in the education department of Helsinki, Finland were sent the survey.</td>
<td>2,038 (52%)</td>
</tr>
<tr>
<td>Hanshke, Kain, &amp; Rivkin (2000)</td>
<td>Why Public Schools Lose Teachers</td>
<td>Matched student/teacher panel data from all Texas public elementary schools.</td>
<td>376,078 (NR)</td>
</tr>
</tbody>
</table>

(Continued)
<table>
<thead>
<tr>
<th>Author(s) &amp; Date</th>
<th>Title</th>
<th>Type of Study/Data Collection</th>
<th># of Participants/ Studies (Response Rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kahn, Schneider, Jenkins-Henkelman, &amp; Moyle (2006)</td>
<td>Emotional Social Support and Job Burnout Among High-School Teachers: Is It All Due To Dispositional Affectivity?</td>
<td>Secondary school teachers recruited through teacher and educator listservs to participate in a web survey on high school teachers' perceptions of their jobs. Respondents represented 41 states in the U.S.</td>
<td>339 (NA)</td>
</tr>
<tr>
<td>Keigher (2010)</td>
<td>Teacher Attrition and Mobility: Results From the 2008-09 Teacher Follow-up Survey (First Look)</td>
<td>Data collected from the NCES 2008-2009 Teacher Follow-Up Survey. Sample drawn from the 44,200 K-12 teachers who completed interviews for the 2007-2008 SASS. All non-respondents contacted personally or by phone.</td>
<td>4,750 (86%)</td>
</tr>
<tr>
<td>Lau, Yuen, &amp; Chen (2005)</td>
<td>Do Demographic Characteristics Make a Difference to Burnout Among Hong Kong Secondary School Teachers?</td>
<td>Survey data collected from a randomly selected sample of secondary teachers in 45 schools in Hong Kong.</td>
<td>1,797 (80%)</td>
</tr>
<tr>
<td>Lortie (1975)</td>
<td>Schoolteacher: A Sociological Study</td>
<td>Interview data collected from K-12 teachers randomly chosen from purposefully selected schools in New England. Survey administered to all professional staff in Dade County, Florida present that day.</td>
<td>94 interviews (94%)</td>
</tr>
</tbody>
</table>

(Continued)
<table>
<thead>
<tr>
<th>Author(s) &amp; Date</th>
<th>Title</th>
<th>Type of Study/Data Collection</th>
<th># of Participants/Studies (Response Rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luekens, Lyter, &amp; Fox (2004)</td>
<td>Teacher Attrition and Mobility - Results from the Teacher Follow-up Survey, 2000–01</td>
<td>Data collected from the NCES 2000-2001 Teacher Follow-Up Survey. Sample drawn from the 50,000+ K-12 teachers who completed interviews for the 1999-2000 SASS.</td>
<td>8,400~ (90%)</td>
</tr>
<tr>
<td>Marvel, Lyter, Peltola, Strizek, &amp; Morton (2007)</td>
<td>Teacher Attrition and Mobility: Results from the 2004-05 Teacher Follow-up Survey (First Look)</td>
<td>Data collected from the NCES 2004-05 Teacher Follow-Up Survey. Sample drawn from the 51,748 K-12 teachers who completed interviews for the 2003-04 SASS. All non-respondents contacted personally or by phone.</td>
<td>7,429 (92%)</td>
</tr>
<tr>
<td>McCarthy, Lambert, O'Donnell, &amp; Melendres (2009)</td>
<td>The Relation of Elementary Teachers’ Experience, Stress, and Coping Resources to Burnout Symptoms</td>
<td>Survey data collected from a convenience sample of elementary school teachers from 13 schools in three adjacent metropolitan counties in the southeastern United States over a period of two academic years.</td>
<td>451 (78%)</td>
</tr>
<tr>
<td>Mearns &amp; Cain (2003)</td>
<td>Relationships Between Teachers’ Occupational Stress and Their Burnout and Distress: Roles of Coping and Negative Mood Regulation Expectancies</td>
<td>Survey data collected from a self-selected sample of K-12 teachers at 6 small- to medium-sized schools in southern California; no information provided on how schools were selected.</td>
<td>86 (58%)</td>
</tr>
<tr>
<td>Ozer &amp; Beycioglu (2010)</td>
<td>The Relationship Between Teacher Professional Development and Burnout</td>
<td>Survey data collected from elementary school teachers in Turkey; no information provided about how sample was selected.</td>
<td>144 (NR)</td>
</tr>
<tr>
<td>Russell, Altmayer, &amp; Van Velzen (1987)</td>
<td>Job-Related Stress, Social Support, and Burnout Among Classroom Teachers</td>
<td>Mail survey data collected from a stratified random sample of public K-12 teachers in Iowa.</td>
<td>316 (53%)</td>
</tr>
<tr>
<td>Scholastic &amp; Gates (2010)</td>
<td>Primary Sources: America’s Teachers on America’s Schools</td>
<td>Phone and online survey data collected from K-12 public school teachers in the United States selected by Harris Interactive and attempting to include the best and broadest representation of teachers.</td>
<td>40,490 (NR)</td>
</tr>
</tbody>
</table>

Note. NA=not applicable; NR=not reported
Dear Courage & Renewal colleagues:

I am pleased to introduce Kimberly Geil, a doctoral student of Dan Liston’s in the School of Education at the University of Colorado at Boulder, and to ask you to participate in her research by passing on her request to teachers who’ve been in a Courage to Teach series.

Dan is a Courage & Renewal facilitator in Colorado. Kim attended his Courage to Teach® Sampler Retreat in 2004. That experience has helped focus her research interests, and for her dissertation she is researching teacher engagement and retention, specifically as it relates to professional development that concentrates on the personal, relationship side of teaching.

Through an online survey, she is gathering data on teachers’ level of engagement with their craft. As you know, there is a need for more empirical research on programs such as Courage to Teach, and we believe that her work has the potential to provide some valuable insights. We would like to support her in this research effort, and are asking for your help in forwarding information about the survey to your Courage to Teach alumni and gathering a few pieces of information for the study.

Your participation is very important to the success of this research, as the validity of claims rests in part upon the number of Courage to Teach alumni reached. Below you will find her letter asking you to invite your Courage to Teach Alumni to participate. Also below (and attached) is a letter from Kim that can be passed on to your CTT alums.

We hope that you will be as enthusiastic about this research project as we are, and encourage your alumni (and you, too!) to take part.

With gratitude and best wishes,

Terry Chadsey
Associate Director
Center for Courage & Renewal
Dear Courage & Renewal Facilitators,

Thank you for helping to facilitate this research study on teacher retention and engagement. Your time and consideration are much appreciated!

As facilitators, your participation in this research project would involve the following:

a. Forwarding an e-mail from me to your Courage to Teach alumni explaining the survey and inviting them to participate;
b. Reporting to me the total number of people to whom the survey invitation is sent, so that response rates can be determined; and
c. Forwarding two reminder e-mails from me to your CTT alumni to increase response rates.

The 10-15 minute online survey will be administered to CTT alumni at the end of May 2009. I would need your help to forward e-mails to your CTT alumni during the two-week time frame of May 27-June 12 (and I’ll send you reminders):

- Initial invitation to participate in study: between Wed, May 27 and Fri, May 29
- First reminder: between Wed, June 3 and Fri, June 5
- Second reminder: between Wed, June 10 and Fri, June 12
- Survey closes: Sunday, June 14 or TBD

If you would like to review the survey, go to this link:

cttsurvey.questionpro.com (Note: site is no longer active)

If you would like to look over the initial invitation to Courage to Teach alumni to participate in the study, see the attached file.

Please e-mail me directly at geil@colorado.edu and let me know whether or not you are willing to help with this research project. If you have any questions, don't hesitate to contact me. I look forward to hearing from you!

Sincerely,

Kim

**************************************************************

Kimberly Geil
Doctoral Student
School of Education
University of Colorado at Boulder
Subject: Teacher Engagement & Retention Study

Dear Courage to Teach alumni:

We are writing to request your help with a research project that we believe has the potential to provide some valuable insights about Courage to Teach.

The study is being conducted by Kimberly Geil, a doctoral student of Dan Liston and Hilda Borko at the University of Colorado at Boulder, School of Education.

Dan is a Courage & Renewal facilitator in Colorado, and Kim attended his Courage to Teach ® Sampler Retreat in 2004 and was immediately impressed by the process. That experience has helped focus her research interests, and for her dissertation she is researching teacher engagement and retention, specifically as it relates to professional development that concentrates on the personal, relationship side of teaching.

Through an online survey, she plans to gather empirical data on teachers’ level of engagement with their craft. As you may know, there is a need for more empirical research on programs such as Courage to Teach, and we believe that her work has the potential to provide some valuable insights. We would like to support her in this research effort, and we are asking you to help by completing the survey. Please see her request below for details.

We hope that you will be as enthusiastic about this research project as we are, and we encourage you to participate. We are also participating in this study and hope that you can find time in your schedules to complete the survey as well.

Sincerely,

[Courage to Teach Facilitator(s)]

and

Terry Chadsey, Associate Director, Center for Courage & Renewal
terry@couragerenewal.org
Dear Courage to Teach alumni,

Thank you for volunteering to participate in this research study on teacher retention and engagement. Your time and consideration are much appreciated!

The survey will take approximately 10-20 minutes to complete. To begin, click on the link below and you will be redirected to an online survey site.

cctsurvey.questionpro.com  (Note: site is no longer active)

The consent form that you’ll see when you click on the above link should answer any questions you may have about the risks and benefits of participation in the study, privacy issues (it’s completely anonymous if you so choose), and so on, but if not, please don’t hesitate to contact me directly. It is entirely your choice whether or not to participate in this study, and you may withdraw at any time.

The survey will be open through at least Sunday, June 14th. I know this is a busy time of year, and I very much appreciate your help with this project. The more of you that respond, the higher the response rate (and in the world of research, that’s a very good thing!).

Thank you!

Sincerely,

Kimberly Geil
School of Education
University of Colorado at Boulder
APPENDIX C: ONLINE SURVEY FOR COURAGE TO TEACH

Note: Bold text indicates comments or explanations to the reader; this text was not visible to respondents completing the survey online.

WELCOME!

Thank you for participating in this study! Before you begin the survey, please take a minute to read over the following material from the University of Colorado's Human Research Committee regarding the terms of the research, and indicate your voluntary consent by clicking "Continue" at the bottom of the page.

(APPROVED CONSENT FORM HERE)

Authorization:
I have read this information about the study or it was read to me. I know the possible risks and benefits. I know that being in this study is voluntary. By clicking “Continue” I choose to be in this study. I know that I can withdraw at any time. I have printed, on today’s date, a copy of this document for my records.

CONTINUE

1. What type of Courage to Teach retreat series did you attend?
   1. A series of 8 Courage to Teach retreats
   2. A series of 5 Courage to Teach retreats
   3. A series of 4 or fewer Courage to Teach retreats
   4. Some other Courage program (i.e. Courage to Lead or Circle of Trust) *(branch to end of survey; not in research population)*
   5. I have not attended a Courage retreat series *(branch to end of survey; not in research population)*

2. General location of the Courage to Teach retreat series you attended:
   1. California (San Rafael area)
   2. California (Bay Area)
   3. Hawaii (Honolulu area)
   4. Illinois (Winnetka area)
   5. Maryland (Baltimore area)
   6. Massachusetts (Boston area)
   7. Michigan (Kalamazoo area)
   8. Minnesota (Minneapolis area)
   9. Mississippi
   10. Montana
   11. New Hampshire
   12. North Carolina (Charlotte area)
   13. Oregon (Portland area)
   14. Oregon (Bend area)
15. South Carolina (Myrtle Beach area)
16. South Dakota
17. Texas (Ft. Worth area)
18. Texas (Austin area)
19. Texas (San Antonio area)
20. Vermont
21. Washington (Seattle area)
22. Wisconsin (Madison area)
23. Wisconsin (Milwaukee area)
24. Arizona
25. Colorado
26. Georgia
27. Idaho
28. New York
29. Virginia
30. Other/No response

3. In what year(s) did you participate in the Courage to Teach retreat series checked above (i.e. 2004-2005)? _______________

4. Your primary role at the time of your participation in the Courage to Teach retreat series. Check only one:
   1. K-12 teacher *(branch to Teaching Experience Q)*
   2. College or university professor/instructor *(branch to Teaching Experience Q)*
   3. Administrator
   4. None of the above

5. *(If “Administrator” or “None of the above”) At the time of your participation in the Courage to Teach retreat series, were you engaged in any teaching activities?*
   1. No, I was not engaged in any teaching activities *(branch to Not Teaching at Time of Participation)*
   2. Yes, for less than half of my time
   3. Yes, for 50% or more of my time

6. Please describe the teaching activities you were engaged in at the time of your participation in the Courage to Teach retreat series:
7. Years of teaching experience at the time of your participation in the Courage to Teach retreat series? Check one:
   1. Less than one year
   2. 1-2 years
   3. 3-5 years
   4. 6-10 years
   5. 11-15 years
   6. 16-20 years
   7. 21-25 years
   8. More than 25 years
   9. Not applicable

8. Do you have any colleagues at your school who have also participated in a Courage to Teach retreat series? Check one:
   1. No, not that I know of
   2. There are one or two other teachers who have
   3. There are 3-5 teachers who have
   4. There are 6-10 teachers who have
   5. There are more than 10 teachers who have

9. Since your participation in the Courage to Teach retreat series, have you done any of the following? Check all that apply:
   1. Participated in another Courage to Teach retreat series
   2. Participated in any workshops or programs related to Courage
   3. Participated in a Courage to Lead program
   4. Participated in a Circle of Trust program
   5. Begun or completed training to become a Courage to Teach facilitator
   6. Facilitated a Courage to Teach retreat series
   7. Facilitated any workshops or programs related to Courage
   8. Read any books about Courage to Teach or by Parker Palmer
   9. Read, listened, or watched any of the resources available on the Center for Courage and Renewal's website
   10. Continued the "inner work" begun at the retreats in your own personal way
   11. Other (please describe): ______________

10. How would you rate your level of involvement with Courage to Teach and related programming since your initial participation in the Courage to Teach retreat series?
   1. Not at all involved
   2. Somewhat involved
   3. Very involved

11. Are you currently teaching? Check one:
    1. No, I’m not currently teaching (branch to Not Currently Teaching questions)
    2. Yes, at the K-12 level
    3. Yes, at the college/university level
    4. Yes, at a level other than K-12 or college/university (please specify): ____________
12. How long do you plan to remain in teaching? Check one:
   1. As long as I am able
   2. Until I am eligible for retirement benefits from this job
   3. Until I am eligible for retirement benefits from a previous job
   4. Until I am eligible for social security benefits
   5. Until a specific life event occurs (e.g., parenthood, marriage)
   6. Until a more desirable job opportunity comes along
   7. Definitely plan to leave teaching as soon as I can
   8. Undecided at this time

13. In the last 12 months, have you applied for a job in an attempt to leave the position of a teacher? Answer "yes" if you have applied for non-teaching positions in the field of education (e.g., administrator) or a position outside the field of education. Answer "no" if you have only applied for summer jobs or other positions to supplement your income from teaching.
   1. Yes
   2. No

14. When will you be eligible for retirement? Check one: (branch to Current Teaching Position questions)
   1. Next year
   2. In two years
   3. In 3-5 years
   4. In 6-10 years
   5. In 11 years or more
   6. Don’t know
   7. Not eligible for retirement

Not Currently Teaching questions:

15. Which of the following best describes your current status? Check only one:
   1. Still working – in the field of education
   2. Still working – in a field other than education
   3. Currently retired – no longer involved in the field of education
   4. Currently retired – still working for pay in the field of education
   5. Currently retired – still volunteering in the field of education
   6. Student – in the field of education
   7. Student – in a field other than education
   8. Raising a family
   9. Taking care of parents/relatives
   10. Other (please describe): ______________________________
16. Indicate the level of importance EACH of the following played in your decision to leave your most recent teaching position: (1-Not at all important, 2-Slightly important, 3-Somewhat important, 4-Very important, 5-Extremely important)
1. Change in residence
2. Pregnancy/child rearing
3. Health
4. To retire
5. School staffing action (e.g., reduction-in-force, lay-off, school closing, school reorganization, reassignment)
6. For better salary or benefits
7. To pursue a position other than that of a teacher
8. To take courses to improve career opportunities WITHIN the field of education
9. To take courses to improve career opportunities OUTSIDE the field of education
10. Dissatisfied with teaching as a career
11. Dissatisfied with previous school or teaching assignment
12. Other family reasons

17. From the items below, which do you consider the MOST important reason in your decision to leave teaching? Choose only one:
1. Change in residence
2. Pregnancy/child rearing
3. Health
4. To retire
5. School staffing action (e.g., reduction-in-force, lay-off, school closing, school reorganization, reassignment)
6. For better salary or benefits
7. To pursue a position other than that of a teacher
8. To take courses to improve career opportunities WITHIN the field of education
9. To take courses to improve career opportunities OUTSIDE the field of education
10. Dissatisfied with teaching as a career
11. Dissatisfied with previous school or teaching assignment
12. Other family reasons

18. Would you consider returning to the position of a K-12 or college/university teacher?
1. Yes
2. No

Current Teaching Position questions

The following questions ask about your current teaching position. If you are not currently teaching, fill them out based on the most recent teaching position you have held:

19. School name (this will be used only in conjunction with the National Center for Education Statistics’ database to gather general information about your school, not to identify you):
   ___________________________
   1. City: ________________________________
   2. State (select from drop-down menu):
20. Do you currently (or did you at your most recent teaching position) teach part-time or full-time?
   1. Part-time
   2. Full-time

21. What grade(s) do you currently teach (or did you teach at your most recent teaching position)? Check all that apply:
   1. Preschool
   2. Kindergarten
   3. 1st grade
   4. 2nd grade
   5. 3rd grade
   6. 4th grade
   7. 5th grade
   8. 6th grade
   9. 7th grade
   10. 8th grade
   11. 9th grade
   12. 10th grade
   13. 11th grade
   14. 12th grade
   15. Undergraduate students
   16. Graduate students
   17. Non-degree seeking students
   18. Other (please specify): ____________________

22. Check the teaching discipline below that best describes your main teaching assignment (the field in which you teach, or taught, the most classes). Check only one:
   1. Bilingual/English as a Second Language
   2. Special Education
   3. Generalist/All Elementary Subjects
   4. Education (including Teacher Education, Administration, Counseling, etc.)
   5. Arts and Music
   6. English and Language Arts
   7. Foreign Language
   8. Health Education and/or Physical Education
   9. Mathematics and/or Computer Science
   10. Natural Sciences (including Engineering)
   11. Social Sciences (including History)
   12. Vocational, Career, or Technical Education
   13. Miscellaneous (please specify): __________________________

23. Would you consider the teaching discipline that you checked above to be your specialty/strongest area of teaching?
   1. Yes
   2. No
24. *(If “no”)* Check the teaching discipline below that you feel is your specialty or your strongest area (NOTE: this may be different than your main teaching assignment). Check only one:

1. Bilingual/English as a Second Language
2. Special Education
3. Generalist/All Elementary Subjects
4. Education (including Teacher Education, Administration, Counseling, etc.)
5. Arts and Music
6. English and Language Arts
7. Foreign Language
8. Health Education and/or Physical Education
9. Mathematics and/or Computer Science
10. Natural Sciences (including Engineering)
11. Social Sciences (including History)
12. Vocational, Career, or Technical Education
13. Miscellaneous (please specify): _______________________________

25. What percentage (approximately) of the students you teach (or most recently taught) are of limited-English proficiency? *Students of limited-English proficiency are those whose native or dominant language is other than English, and who have sufficient difficulty speaking, reading, writing, or understanding the English language as to deny them the opportunity to learn successfully in an English-speaking-only classroom.*

1. None
2. 1-9%
3. 10-24%
4. 25-29%
5. 50-74%
6. 75%-99%
7. 100%

26. When you participated in the Courage to Teach retreat series, was your teaching position (e.g. school, grade level, subject, students) the same as the position you just described above?

1. Yes *(branch to Motivations for Teaching Questions)*
2. No
27. *(If “no”)* From the statements below, which do you consider the MOST important reason in your decision to change the teaching position you held at the time of your participation in the Courage to Teach retreat series? Choose only one:
1. New school was closer to my home
2. Salary or benefits were better in my new teaching position
3. I felt job security would be higher at the new school
4. I had an opportunity for a better teaching assignment (subject area or grade level) at the new school
5. I was dissatisfied with workplace conditions (e.g. facilities, classroom resources, school safety) at my previous school
6. I was dissatisfied with support from administrators at my previous school
7. I was dissatisfied with changes in my job description or responsibilities at my previous school
8. I was laid off or involuntarily transferred
9. I did not have enough autonomy over my classroom at my previous school
10. I was dissatisfied with opportunities for professional development at my previous school
11. I was dissatisfied with my previous school for other reasons not included above (please describe): ______________________

Motivations for Teaching questions

The next questions ask about your motivations for teaching.

28. Please indicate the level of importance each of the following played in your decision to become a teacher: (1-Not at all important, 2, 3, 4, 5-Extremely important)
1. Wanted to make a difference/contribute to society
2. Best job available to me at the time
3. Wanted to work with children/young people
4. Stable job with steady paycheck
5. Love of/enthusiasm for the subject I teach
6. Schedule was ideal (e.g. for raising a family, traveling during the summer)
7. Always wanted to be a teacher
8. Interested in issues of social justice and equity

29. From the statements below, which do you consider the MOST important reason in your decision to become a teacher? Choose only one: (drop-down menu)
1. Wanted to make a difference/contribute to society
2. Best job available to me at the time
3. Wanted to work with children/young people
4. Stable job with steady paycheck
5. Love of/enthusiasm for the subject I teach
6. Schedule was ideal (e.g. for raising a family, traveling during the summer)
7. Always wanted to be a teacher
8. Interested in issues of social justice and equity
9. Other (please explain below):
30. If you could go back in time and start over again, would you become a teacher or not?
   1. Certainly would become a teacher
   2. Probably would become a teacher
   3. Chances about even for and against
   4. Probably would not become a teacher
   5. Certainly would not become a teacher

31. Indicate the level of importance each of the following plays in your decision to remain in teaching: (NOTE: If you are not currently teaching, you may skip this question) (1-Not at all important, 2, 3, 4, 5-Extremely important)
   1. Feel I am making a difference/contributing to society
   2. Nothing better has come along
   3. Enjoy working with children/young people
   4. Stable job with steady paycheck
   5. Love of/enthusiasm for the subject I teach
   6. Schedule is ideal (e.g. for raising a family, traveling during the summer)
   7. It’s the perfect job for me
   8. Allows me to work towards social justice and equity goals
   9. Too close to retirement to quit now

32. From the statements below, which do you consider the MOST important reason in your decision to remain in teaching? Choose only one: (NOTE: If you are not currently teaching, you may skip this question)
   1. Feel I am making a difference/contributing to society
   2. Nothing better has come along
   3. Enjoy working with children/young people
   4. Stable job with steady paycheck
   5. Love of/enthusiasm for the subject I teach
   6. Schedule is ideal (e.g. for raising a family, traveling during the summer)
   7. It’s the perfect job for me
   8. Allows me to work towards social justice and equity goals
   9. Too close to retirement to quit now
   10. Other (please explain below):

33. The next set of statements addresses job-related feelings.

   Please read each statement carefully. If you are currently teaching, decide if you ever feel this way about your current teaching position. If you are not currently teaching, decide if you ever felt this way about your most recent teaching position.

   If you have never had this feeling, check “Never.” If you have had this feeling, indicate how often you feel it (or felt it) by checking the category that best describes how frequently you feel (or felt) that way. (1-Never, 2-A few times a year or less, 3-Once a month or less, 4-A few times a month, 5-Once a week, 6-A few times a week, or 7-Everyday.)
Sample Items (due to copyright restrictions, only sample MBI items may be published):
  I feel I treat some students as if they were impersonal objects.
  I feel I'm positively influencing other people's lives through my work.
  I feel like I'm at the end of my rope.

(Modified and reproduced by special permission of the Publisher, CPP, Inc., Mountain View, CA 94043 from Maslach Burnout Inventory - Educators Survey by Christina Maslach and Susan E. Jackson. Copyright 1986 by CPP, Inc. All rights reserved. Further reproduction is prohibited without the Publisher's written consent.)

34. To what extent do you agree or disagree with the following statements about your current teaching position? If you are not currently teaching, respond according to how you felt at your most recent teaching position. (1-Strongly disagree, 2-Somewhat disagree, 3-Somewhat agree, 4-Strongly agree, or 5-Not applicable)
   1. The school administration’s behavior toward the staff is supportive and encouraging.
   2. I receive a great deal of support from parents for the work I do.
   3. Necessary materials such as textbooks, supplies, and copy machines are available as needed by staff.
   4. Routine duties and paperwork interfere with my job of teaching.
   5. My principal/administrator enforces school rules for student conduct and backs me up when I need it.
   6. Rules for student behavior are consistently enforced by teachers in my school, even for students who are not in their classes.
   7. Most of my colleagues share my beliefs and values about what the central mission of the school should be.

Thanks for hanging in here! We know these types of questions can get a bit tedious, but they are important to the research.

35. To what extent do you agree or disagree with the following statements about your current teaching position? If you are not currently teaching, respond according to how you felt at your most recent teaching position. (1-Strongly disagree, 2-Somewhat disagree, 3-Somewhat agree, 4-Strongly agree, or 5-Not applicable)
   1. The principal/administrator knows what kind of school he or she wants and has communicated it to the staff.
   2. There is a great deal of cooperative effort among the staff members.
   3. I worry about the security of my job because of the performance of my students on state or local tests.
   4. State or district content standards have had a positive influence on my satisfaction with teaching.
   5. I feel comfortable asking my colleagues for advice on teaching.
   6. In the community where I teach, teachers are highly respected.

203
36. Indicate how descriptive the following statements are of you and your students. If you are not currently teaching, respond based on your most recent teaching position. (1-Not at all descriptive, 2, 3, 4, 5-Extremely descriptive)
   1. I find the subject(s) I teach fascinating.
   2. My students are excited about learning the subject(s) I teach.
   3. I get a great deal of satisfaction from seeing my students learn the subject material.
   4. I incorporate new things I have learned about a topic into my lesson plans.
   5. I use real-world examples in my teaching.
   6. Through learning about the subject(s) I teach, I have learned about myself as a person.
   7. My students learn about themselves as people through studying the subject(s) I teach.
   8. I prefer to use the textbook or pre-made activities when teaching rather than using activities I have created myself.
   9. I teach a wide range of students effectively (e.g. students of different skill levels, language ability).

37. To what extent do you agree or disagree with this last set of statements about your attitude toward teaching and your school? If you are not currently teaching, respond according to how you felt at your most recent teaching position. (1-Strongly disagree, 2-Somewhat disagree, 3-Somewhat agree, 4-Strongly agree, or 5-Not applicable)
   1. I am satisfied with my teaching salary.
   2. I sometimes feel it is a waste of time to try to do my best as a teacher.
   3. I am generally satisfied with being a teacher at this school.
   4. The stress and disappointments involved in teaching at this school aren’t really worth it.
   5. The teachers at this school like being here; I would describe us as a satisfied group.
   6. I like the way things are run at this school.
   7. If I could get a higher paying job I’d leave teaching as soon as possible.
   8. I think about transferring to another school.
   9. I don’t seem to have as much enthusiasm now as I did when I began teaching.
   10. I think about staying home from school because I’m just too tired to go.

Not Teaching at Time of Participation

Thank you for your willingness to participate in this research. Based on your answer to the previous question, you are not a member of the primary population being studied, but we would still like to ask you a few more questions about your Courage to Teach experience. Please click “continue” below.

Courage to Teach Retreat Series questions

38. Has your participation in the Courage to Teach retreat series had any effect on your decision to remain in, leave, or return to teaching?
   1. Yes
   2. No

39. (If “yes”) Briefly explain the effect that your participation in the Courage to Teach retreat series has had on your decision to remain in, leave, or return to teaching:
40. What effect did your participation in the Courage to Teach retreat series have on your: (1- Very detrimental, 2- Somewhat detrimental, 3- No effect, 4- Somewhat beneficial, 5- Very beneficial)
   1. Understanding of subject matter
   2. Repertoire of teaching ideas
   3. Relationships with students
   4. Relationships with colleagues
   5. Relationships with administrators
   6. Relationships with parents and community members
   7. Energy levels
   8. Stress levels
   9. Enjoyment of teaching
   10. Motivation to teach
   11. Interest in subject matter

41. As you look back on your Courage to Teach retreat series experience, what stands out as the most valuable part to you? ____________________________

42. Have you ever participated in a Summer Institute of the National Writing Project?
   1. Yes
   2. No

Just a few more background questions, and we’re done!

43. What gender do you most identify with?
   1. Female
   2. Male

44. Check the category that most accurately reflects your ethnic background. Check only one:
   1. African American or Black, not of Hispanic origin
   2. American Indian or Alaskan Native
   3. Asian
   4. Hispanic, Chicano, Mexican American, Latino
   5. Pacific Islander/Filipino
   6. White, not of Hispanic or origin
   7. Multiracial (Indicate other ethnic or racial terms that further or better describe your ethnic background) ____________________________

45. Age? Check one:
   1. 25 years or younger
   2. 26-30 years old
   3. 31-40 years old
   4. 41-50 years old
   5. 51-60 years old
   6. 61 years old or older
46. Do you hold any of the following academic degrees? Check all that apply:
   1. Bachelor’s degree
   2. Master’s degree
   3. PhD

47. Are any of the degrees you checked above in education-related fields? Check any degrees that are:
   1. Bachelor’s degree
   2. Master’s degree
   3. PhD

48. Do you hold a teaching certificate in the state you are currently teaching (or most recently taught) in?
   1. Yes
   2. No
   3. Not applicable

49. Did you enter teaching through an alternative certification program? (An alternative program is a program that was designed to expedite the transition of non-teachers to a teaching career, for example, a state, district, or university alternative certification program.)
   1. Yes
   2. No
   3. Not applicable

That’s it for the survey!

50. A second phase of this study will involve phone interviews with a small sample of participants who completed this online survey. Please provide your name, e-mail address, and phone number below if you are willing to be contacted for this portion of the research.
   1. Name: _________________________
   2. E-mail address: _________________________
   3. Phone number: _________________________

**Not member of research population:**
Thank you for your willingness to complete this survey. However, based on your answer to the previous question, you are not a member of the population being studied and your participation is no longer needed. Thank you, and please click “Continue” at the bottom of the page.

**Thank you page:**
Thank you very much for participating in this survey! Your response has been saved and recorded with ID # 123456.

If you would like to receive a summary of the results of this survey (expected completion date: Summer 2010), send an e-mail to geil@colorado.edu with “CTT Research Results” in the subject line and your e-mail address in the body of the message.
If you’re interested in learning about QuestionPro survey software, click on the “Thank you for completing this survey” link or the “Free Trial” button below. Otherwise, you may close the window now. Thank you again for your participation in this research project!

At the bottom of each page:
Please contact geil@colorado.edu if you have any questions regarding this survey.
APPENDIX D: ONLINE SURVEY FOR NATIONAL WRITING PROJECT

Note: The majority of the items on the surveys are exactly the same (with the exception of the name of the professional development program). This appendix shows only those questions that are substantially different from the questions on the survey for the Courage to Teach respondents.

1. **As all summer institutes are of similar length, NWP respondents were not asked question 1.**

2. Writing Project that sponsored the Summer Institute you attended:
   1. I have not attended a Summer Institute (branch to end of survey; not in research population)
   2. Area 3 Writing Project, California
   3. Bay Area Writing Project, California
   4. Boston Writing Project, Massachusetts
   5. Chicago Area Writing Project, Illinois
   6. Coastal Area Writing Project, South Carolina
   7. Dakota Writing Project, South Dakota
   8. Fox Valley Writing Project, Wisconsin
   9. Hawaii Writing Project, Hawaii
   10. Heart of Texas Writing Project, Texas
   11. Hudson Valley Writing Project, New York
   12. Kennesaw Mountain Writing Project, Georgia
   13. Lewis & Clark Writing Project, Oregon
   14. Maryland Writing Project, Maryland
   15. Milwaukee Writing Project, Wisconsin
   16. Minnesota Writing Project, Minnesota
   17. Montana Writing Project, Montana
   18. National Writing Project at Rutgers University, New Jersey
   19. National Writing Project in Vermont, Vermont
   20. North Star of Texas Writing Project, Texas
   21. Northern Arizona Writing Project, Arizona
   22. Northern Plains Writing Project, North Dakota
   23. Plymouth Writing Project, New Hampshire
   24. Puget Sound Writing Project, Washington
   25. Red Mountain Writing Project, Alabama
   26. San Antonio Writing Project, Texas
   27. Southern Oregon University, Oregon
   28. Third Coast Writing Project, Michigan
   29. UNC Charlotte Writing Project, North Carolina
   30. University of Mississippi, Mississippi
   31. Willamette Writing Project, Oregon
   32. Other (please specify):

3. Year you participated in the Summer Institute (yyyy): _____________
9. Since your participation in the Summer Institute, have you engaged in any of the following Writing Project activities? Check all that apply:
1. Advanced Institutes
2. Inservice workshops
3. “Saturday seminars”
4. Teacher research/inquiry groups
5. New teacher support programs
6. Parent and community workshops
7. Young Writers’ programs
8. Teacher reading or writing group
9. Writing project activities at the national level
10. Become a site director or co-director
11. Other (please describe): ___________________
APPENDIX E: INSTRUCTORS AT THE COLLEGE/UNIVERSITY LEVEL

In the original sample, there are 39 CTT respondents and 55 NWP respondents who are currently teaching at the college or university level. When I exclude all those who did not complete the survey (2 CTT and 5 NWP) and who have participated in both PD programs (6 CTT and 2 NWP), there are 31 CTT and 48 NWP cases remaining. These cases are the focus of this appendix. To distinguish them from the PK-12 teachers, I will refer to them collectively as “instructors,” even though undoubtedly they fill a variety of different roles at their institutions. In this appendix, I will describe their demographic characteristics, look at their intentions to remain in teaching, and examine what they think about the benefits of the PD programs in which they participated.

Descriptive Characteristics

Gender and Race/Ethnicity

As with the PK-12 teachers, the majority of the college/university level instructors are female and Caucasian for both PD programs (see Table 1).

Table 1. Gender and Race/Ethnicity of College and University Instructors

<table>
<thead>
<tr>
<th></th>
<th>CTT</th>
<th></th>
<th>NWP</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>22</td>
<td>71.0</td>
<td>36</td>
<td>76.6</td>
</tr>
<tr>
<td>Male</td>
<td>9</td>
<td>29.0</td>
<td>11</td>
<td>23.4</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>27</td>
<td>87.1</td>
<td>42</td>
<td>87.5</td>
</tr>
<tr>
<td>African American</td>
<td>1</td>
<td>3.2</td>
<td>1</td>
<td>2.1</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1</td>
<td>3.2</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Multiracial</td>
<td>1</td>
<td>3.2</td>
<td>1</td>
<td>2.1</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>1</td>
<td>3.2</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Asian</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
<td>6.3</td>
</tr>
<tr>
<td>American Indian</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>2.1</td>
</tr>
</tbody>
</table>

210
Unlike the PK-12 teachers, however, the instructors are considerably more diverse in terms of gender and slightly more diverse in terms of race/ethnicity. Whereas only 12% and 14% of the CTT and NWP PK-12 teachers are male, that percentage jumps to 29% and 23% respectively for the CTT and NWP instructors. The CTT instructors are also slightly more diverse than the CTT PK-12 teachers: 87% of the instructors are White, compared to 90% of the CTT PK-12 teachers. The percentage of NWP instructors who are White is exactly the same as that of the NWP PK-12 teachers (88%).

Age, Teaching Experience, and Retirement Eligibility

The college and university instructors exhibit very similar patterns as the PK-12 teachers, in that the CTT instructors are consistently older, have more teaching experience, and are closer to retirement than the NWP instructors (see Table 2).

<table>
<thead>
<tr>
<th>Table 2. Age, Teaching Experience, and Retirement Eligibility of College and University Instructors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>30 yrs or younger</td>
</tr>
<tr>
<td>31-40 yrs</td>
</tr>
<tr>
<td>41-50 yrs</td>
</tr>
<tr>
<td>51-60 yrs</td>
</tr>
<tr>
<td>61 yrs or older</td>
</tr>
<tr>
<td>Teaching Experience</td>
</tr>
<tr>
<td>5 years or less</td>
</tr>
<tr>
<td>6-10 years</td>
</tr>
<tr>
<td>11-20 years</td>
</tr>
<tr>
<td>21 years or more</td>
</tr>
<tr>
<td>Retirement Eligibility</td>
</tr>
<tr>
<td>In 5 years or less</td>
</tr>
<tr>
<td>In 6-10 years</td>
</tr>
<tr>
<td>In 11 years or more</td>
</tr>
<tr>
<td>Don't know</td>
</tr>
<tr>
<td>Not eligible for retirement</td>
</tr>
</tbody>
</table>
The CTT instructors are also considerably older than the CTT PK-12 teachers, with two-thirds of the instructors (68%) being 51 years of age or older, compared to just under half of the PK-12 teachers (45%). The NWP instructors’ age is distributed quite similarly to the NWP PK-12 teachers, except that there are more NWP instructors in the 61 years or older category (17%) than in the 30 years and younger category (6%), and the opposite is true for the NWP PK-12 teachers (16% and 8%, respectively).

The same pattern is seen in teaching experience, in that the CTT instructors have considerably more teaching experience than the PK-12 instructors do (52% of the instructors have 21 years or more of teaching experience, compared to just 22% of the PK-12 teachers). The NWP instructors, on the other hand, do have slightly more teaching experience overall than the NWP PK-12 teachers, but the distributions are quite similar between the two groups. In fact, there are just a few more NWP PK-12 teachers with 21 years or more of teaching experience (14%) than NWP instructors (13%).

The CTT instructors are also closer to retirement than the CTT PK-12 teachers, and so are the NWP instructors compared to the NWP PK-12 teachers. Well over a third (39%) of the CTT instructors will be eligible for retirement in 5 years or less, compared to a fourth (24%) of the CTT PK-12 teachers. Only a quarter (26%) of the NWP instructors will be eligible for retirement in 5 years or less, but this is a good deal more than the 17% of NWP PK-12 teachers who will be eligible in the same time frame.

**Full Time Status and Satisfaction With Salary**

In terms of full time teaching status, the college/university instructors are distributed quite differently than the PK-12 teachers. Regarding satisfaction with salary, there are some differences as well (see Table 3).
Table 3. Teaching Status and Satisfaction With Salary

<table>
<thead>
<tr>
<th></th>
<th>CTT</th>
<th></th>
<th>NWP</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Teaching Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full time</td>
<td>25</td>
<td>80.6</td>
<td>24</td>
<td>50.0</td>
</tr>
<tr>
<td>Part time</td>
<td>6</td>
<td>19.4</td>
<td>24</td>
<td>50.0</td>
</tr>
<tr>
<td>Satisfied With Salary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>4</td>
<td>12.9</td>
<td>14</td>
<td>29.2</td>
</tr>
<tr>
<td>Somewhat disagree</td>
<td>8</td>
<td>25.8</td>
<td>15</td>
<td>31.3</td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>15</td>
<td>48.4</td>
<td>12</td>
<td>25.0</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>4</td>
<td>12.9</td>
<td>7</td>
<td>14.6</td>
</tr>
</tbody>
</table>

 Whereas over 90% of the PK-12 teachers in both PD programs are teaching full time, only 81% of the CTT instructors and only 50% of the NWP instructors are teaching full time. Clearly more of the instructors are part time than the PK-12 teachers, which makes sense considering that there are probably more part time positions available at the college and university levels. The NWP instructors hold significantly more part time positions.

 With regards to how satisfied they are with their salaries, the CTT instructors (61%) are considerably more satisfied than the NWP instructors (40%). This may be due to the high proportion of part-time positions held by the NWP respondents, or perhaps the fact that they are at earlier stages in their careers. Compared to the PK-12 teachers in each PD program, the CTT instructors feel similarly, although they are slightly less satisfied than the CTT PK-12 teachers (39% of the CTT instructors are dissatisfied, compared to 34% of the CTT PK-12 teachers). The NWP instructors, however, are much more dissatisfied than the NWP PK-12 teachers, most likely for some of the same reasons I brought up above. Almost two-thirds (61%) of the NWP instructors are not satisfied to some degree with their salaries, compared to 32% of the NWP PK-12 teachers.
Inten tions to Remain in Teaching

The college and university instructors’ responses to the following three survey items provide a sense of their intentions to remain in teaching (see Table 4).

| Table 4. College and University Instructors’ Intentions to Remain in Teaching |
|-------------------------------------------------|-----|-----|
| How Long Plan to Remain in Teaching             | CTT | NWP |
| As long as I am able                            | 17  | 31  |
| Until eligible for retirement benefits from this job | 8   | 3   |
| Until eligible for social security benefits     | 1   | 1   |
| Until a more desirable job opportunity comes along | 1   | 2   |
| Undecided at this time                          | 4   | 11  |
| Applied for Job to Leave Teaching               |     |     |
| No, have not applied for a job                  | 30  | 41  |
| Yes, have applied for a job                     | 1   | 6   |
| Would Leave Teaching for a Higher Paying Job    |     |     |
| Strongly disagree                               | 18  | 28  |
| Somewhat disagree                               | 11  | 13  |
| Somewhat agree                                  | 1   | 6   |
| Strongly agree                                  | 1   | 0   |

The responses to these three items tell a different story for the college/university instructors than they do for the PK-12 teachers. Amongst the PK-12 teachers, the CTT PK-12 teachers were not as stable in their intentions to remain in teaching as the NWP PK-12 teachers: they were less likely to want to stay in teaching as long as they are able, more likely to have applied for a job to leave the position of teacher, and more likely to agree that they would leave teaching if they could find a higher paying job. On the contrary, the picture is slightly different when I look at just the college/university instructors. While the NWP instructors are still more likely to say they want to stay in teaching as long as they are able (65%, compared to 55%), there are more CTT instructors who plan to stay in teaching until they retire (29%, versus 8% of NWP
instructors), and fewer who are undecided about their future in teaching (13%, compared to 23% for NWP).

While the NWP PK-12 teachers were less likely to have applied for a job to leave the position of teacher (5% of NWP PK-12 teachers had applied, compared to 10% of CTT PK-12 teachers), the opposite is true for the NWP instructors: 13% have applied for a job, compared to just 3% of CTT instructors. And the NWP instructors are twice as likely (13%, compared to 6% for CTT instructors) to agree that they would leave teaching immediately if they could find a higher paying job. As noted above, this may be due to the high percentage of part-time instructors who are still early in their careers in the NWP group.

Effects of Participation on Retention Decisions

The college/university instructors responded to two questions about whether or not the professional development program affected any decisions they made about retention. When asked the yes/no question of: Has your participation in the [CTT retreat series or NWP summer institute] had any effect on your decision to remain in, leave, or return to teaching?, the results were opposite from what they were with the PK-12 teachers. More of the NWP instructors said that their participation had an effect (79%) than the CTT instructors (68%), whereas for the PK-12 teachers the percentages were reversed (80% of the CTT PK-12 teachers said yes, and 70% of the NWP PK-12 teachers said no).

When asked to explain the effect of the PD program on their retention decisions, the general themes mirrored those found in the PK-12 responses. Again, the NWP instructors were more likely to comment on gaining new ideas that helped them stay enthused and become better teachers. They talked about realizing that they could enjoy teaching, sustaining their enthusiasm and love for teaching or teaching writing, and being inspired by the colleagues they met in the
summer institutes. Some were motivated to pursue advanced degrees. There was a thread of comments relating to the community of the summer institute helping them counter the negativity they found elsewhere in their professional lives, and a sense of being grateful for the opportunity to connect with other teachers and instructors who were motivated and enthusiastic about teaching and doing their best for students.

Many of the same themes were present in the CTT responses: for example, the people they had met and the communities that had been created, and feelings of renewed enthusiasm for teaching. Also in the CTT responses (but not so much in the NWP responses) was the focus on learning about oneself personally and how this tied into their teaching. Many of the CTT instructors made comments about their identity and integrity, how who they are effects how they teach, and about the importance of maintaining a good balance in their personal and professional lives. They also made more comments about how the program helped them either rediscover or reaffirm their sense of teaching as a calling or a vocation, rather than just a job.

**Most Valuable Aspect of PD Program Participation**

The second open-ended question asked, *As you look back on your [CTT retreat series or NWP summer institute] experience, what stands out as the most valuable part to you?*

The majority of the NWP responses were about writing: the opportunity to do their own writing, to become a writer, improve their skills, participate in a writing group, and so on. There was again a strong sense of the importance of meeting other teachers and forming relationships and professional (and sometimes personal) networks. Several also mentioned the value of getting new ideas for teaching writing, putting theory into practice, and doing their own research.

For the CTT instructors, the comments again revolved around the people they had met, the caring, trusting relationships and communities that had developed, and the sense of support
they felt. Several mentioned that it was valuable for them to realize that others felt the same way, or had similar doubts and fears. They also talked about the importance of reflecting on their inner self and on their life and vocation, and the clearness committee was mentioned multiple times.

**Summary**

The instructors of both PD programs are older, have more teaching experience, and are closer to retirement than their PK-12 counterparts. It seems that the two programs attract different groups at the college/university level: CTT attracts instructors with considerable amounts of experience who are nearing the end of their careers, while NWP is more attractive to instructors who are still relatively new to teaching and further away from retirement. The CTT instructors are also more likely to teach full time and to be satisfied with their salaries than the NWP instructors.

The CTT instructors are more definite about their intentions to remain in teaching than the NWP instructors. The CTT instructors are also more definite about their intentions than the CTT PK-12 teachers are, while for the NWP instructors this trend is generally in the opposite direction.

Unlike the PK-12 teachers, more NWP instructors reported that their participation in the program had an effect on a decision they were making regarding retention than the CTT instructors. The comments made by both groups regarding the effects the program had on retention decisions were very similar to those made by the respective PK-12 teachers in each PD program. The same was true regarding the instructors’ comments about the most valuable aspect of their participation: The NWP instructors’ responses revolved around writing, meeting other teachers, and new ideas for teaching, while the CTT instructors’ comments were mostly about having found caring, trusting relationships and doing work related to their inner lives.
## APPENDIX F. REGRESSION COEFFICIENTS AND SUBCLASS DESCRIPTIVE STATISTICS

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>YrBeganPdProgram</td>
<td>0.12</td>
<td>0.04</td>
<td>10.49</td>
<td>1</td>
<td>0.001</td>
<td>1.130</td>
</tr>
<tr>
<td>Age30YrsOrLess</td>
<td>-1.80</td>
<td>0.95</td>
<td>3.57</td>
<td>1</td>
<td>0.059</td>
<td>0.166</td>
</tr>
<tr>
<td>Age31To40Yrs</td>
<td>-0.77</td>
<td>0.77</td>
<td>0.98</td>
<td>1</td>
<td>0.323</td>
<td>0.465</td>
</tr>
<tr>
<td>Age41To50Yrs</td>
<td>-0.16</td>
<td>0.71</td>
<td>0.05</td>
<td>1</td>
<td>0.821</td>
<td>0.852</td>
</tr>
<tr>
<td>Age51To60Yrs</td>
<td>-0.20</td>
<td>0.64</td>
<td>0.10</td>
<td>1</td>
<td>0.753</td>
<td>0.818</td>
</tr>
<tr>
<td>TeachExp5YrsOrLess</td>
<td>-0.64</td>
<td>0.54</td>
<td>1.41</td>
<td>1</td>
<td>0.235</td>
<td>0.528</td>
</tr>
<tr>
<td>TeachExp6to10Yrs</td>
<td>0.20</td>
<td>0.49</td>
<td>0.17</td>
<td>1</td>
<td>0.682</td>
<td>1.219</td>
</tr>
<tr>
<td>TeachExp11to20Yrs</td>
<td>0.56</td>
<td>0.41</td>
<td>1.88</td>
<td>1</td>
<td>0.171</td>
<td>1.742</td>
</tr>
<tr>
<td>Retire5YrsOrLess</td>
<td>0.11</td>
<td>0.73</td>
<td>0.02</td>
<td>1</td>
<td>0.879</td>
<td>1.118</td>
</tr>
<tr>
<td>Retire6To10Yrs</td>
<td>-0.20</td>
<td>0.69</td>
<td>0.09</td>
<td>1</td>
<td>0.770</td>
<td>0.817</td>
</tr>
<tr>
<td>Retire11YrsOrMore</td>
<td>-0.18</td>
<td>0.62</td>
<td>0.08</td>
<td>1</td>
<td>0.773</td>
<td>0.836</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.02</td>
<td>0.43</td>
<td>0.00</td>
<td>1</td>
<td>0.963</td>
<td>0.980</td>
</tr>
<tr>
<td>RaceEthnicity</td>
<td>0.65</td>
<td>0.45</td>
<td>2.11</td>
<td>1</td>
<td>0.147</td>
<td>1.915</td>
</tr>
<tr>
<td>FullTimeStatus</td>
<td>-0.94</td>
<td>0.72</td>
<td>1.69</td>
<td>1</td>
<td>0.194</td>
<td>0.391</td>
</tr>
<tr>
<td>TeachingCertificate</td>
<td>-1.30</td>
<td>1.13</td>
<td>1.31</td>
<td>1</td>
<td>0.252</td>
<td>0.273</td>
</tr>
<tr>
<td>SatisfiedSalary</td>
<td>-0.38</td>
<td>0.29</td>
<td>1.69</td>
<td>1</td>
<td>0.194</td>
<td>0.683</td>
</tr>
<tr>
<td>Elementary</td>
<td>0.85</td>
<td>0.36</td>
<td>5.60</td>
<td>1</td>
<td>0.018</td>
<td>2.338</td>
</tr>
<tr>
<td>Secondary</td>
<td>0.59</td>
<td>0.38</td>
<td>2.40</td>
<td>1</td>
<td>0.121</td>
<td>1.804</td>
</tr>
<tr>
<td>Urban</td>
<td>0.64</td>
<td>0.42</td>
<td>2.30</td>
<td>1</td>
<td>0.129</td>
<td>1.890</td>
</tr>
<tr>
<td>Suburban</td>
<td>-0.16</td>
<td>0.40</td>
<td>0.16</td>
<td>1</td>
<td>0.688</td>
<td>0.852</td>
</tr>
<tr>
<td>Town</td>
<td>-1.05</td>
<td>0.49</td>
<td>4.60</td>
<td>1</td>
<td>0.032</td>
<td>0.350</td>
</tr>
<tr>
<td>TotalStudents</td>
<td>0.00</td>
<td>0.00</td>
<td>0.32</td>
<td>1</td>
<td>0.571</td>
<td>1.000</td>
</tr>
<tr>
<td>StudentTeacherRatio</td>
<td>-0.03</td>
<td>0.03</td>
<td>0.93</td>
<td>1</td>
<td>0.335</td>
<td>0.967</td>
</tr>
<tr>
<td>PublicOrPrivateSchool</td>
<td>-0.68</td>
<td>0.71</td>
<td>0.92</td>
<td>1</td>
<td>0.338</td>
<td>0.509</td>
</tr>
<tr>
<td>FreeReducedLunchStudents</td>
<td>0.79</td>
<td>0.96</td>
<td>0.67</td>
<td>1</td>
<td>0.412</td>
<td>2.200</td>
</tr>
<tr>
<td>NonWhiteStudents</td>
<td>-0.33</td>
<td>0.89</td>
<td>0.14</td>
<td>1</td>
<td>0.709</td>
<td>0.718</td>
</tr>
<tr>
<td>Constant</td>
<td>-242.42</td>
<td>75.69</td>
<td>10.26</td>
<td>1</td>
<td>0.001</td>
<td>0.000</td>
</tr>
</tbody>
</table>
### Age

<table>
<thead>
<tr>
<th>Subclass</th>
<th>Age 30 Yrs or Less</th>
<th>Age 31 to 40 Yrs</th>
<th>Age 41 to 50 Yrs</th>
<th>Age 51 to 60 Yrs</th>
<th>Age 61 Yrs or More</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.21</td>
<td>0.41</td>
<td>0.17</td>
<td>0.19</td>
<td>0.02</td>
</tr>
<tr>
<td>2</td>
<td>0.04</td>
<td>0.34</td>
<td>0.32</td>
<td>0.24</td>
<td>0.06</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0.19</td>
<td>0.38</td>
<td>0.33</td>
<td>0.10</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0.13</td>
<td>0.38</td>
<td>0.44</td>
<td>0.05</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0.07</td>
<td>0.48</td>
<td>0.34</td>
<td>0.10</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0.11</td>
<td>0.42</td>
<td>0.37</td>
<td>0.11</td>
</tr>
</tbody>
</table>

### Teaching Experience

<table>
<thead>
<tr>
<th>Subclass</th>
<th>5 Yrs or Less</th>
<th>6-10 Yrs</th>
<th>11-20 Yrs</th>
<th>21 Yrs or More</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.58</td>
<td>0.24</td>
<td>0.10</td>
<td>0.07</td>
</tr>
<tr>
<td>2</td>
<td>0.16</td>
<td>0.34</td>
<td>0.26</td>
<td>0.24</td>
</tr>
<tr>
<td>3</td>
<td>0.06</td>
<td>0.31</td>
<td>0.44</td>
<td>0.19</td>
</tr>
<tr>
<td>4</td>
<td>0.05</td>
<td>0.18</td>
<td>0.54</td>
<td>0.23</td>
</tr>
<tr>
<td>5</td>
<td>0.03</td>
<td>0.21</td>
<td>0.52</td>
<td>0.24</td>
</tr>
<tr>
<td>6</td>
<td>0.05</td>
<td>0.11</td>
<td>0.47</td>
<td>0.37</td>
</tr>
</tbody>
</table>

### School Level

<table>
<thead>
<tr>
<th>Subclass</th>
<th>Elementary (K-6)</th>
<th>Secondary (7-12)</th>
<th>Combined (K-12)</th>
<th>No CCD Data Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.19</td>
<td>0.46</td>
<td>0.34</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>0.44</td>
<td>0.34</td>
<td>0.22</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>0.35</td>
<td>0.27</td>
<td>0.38</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>0.36</td>
<td>0.31</td>
<td>0.33</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>0.59</td>
<td>0.24</td>
<td>0.17</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>0.68</td>
<td>0.21</td>
<td>0.11</td>
<td>0</td>
</tr>
</tbody>
</table>

### School Locale

<table>
<thead>
<tr>
<th>Subclass</th>
<th>Urban</th>
<th>Suburban</th>
<th>Town</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.26</td>
<td>0.30</td>
<td>0.18</td>
<td>0.25</td>
</tr>
<tr>
<td>2</td>
<td>0.22</td>
<td>0.48</td>
<td>0.16</td>
<td>0.14</td>
</tr>
<tr>
<td>3</td>
<td>0.27</td>
<td>0.33</td>
<td>0.08</td>
<td>0.31</td>
</tr>
<tr>
<td>4</td>
<td>0.28</td>
<td>0.36</td>
<td>0.03</td>
<td>0.33</td>
</tr>
<tr>
<td>5</td>
<td>0.59</td>
<td>0.03</td>
<td>0</td>
<td>0.38</td>
</tr>
<tr>
<td>6</td>
<td>0.74</td>
<td>0.05</td>
<td>0</td>
<td>0.21</td>
</tr>
<tr>
<td>Subclass</td>
<td>Year Began</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2003.58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2004.10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2004.21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2005.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2004.34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>2006.11</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX G. MOST COMMONLY CODED THEMES IN OPEN-ENDED RESPONSE QUESTIONS

Question #1: Briefly explain the effect that your participation in [CTT or NWP] has had on your decision to remain in, leave, or return to teaching.

<table>
<thead>
<tr>
<th>Benefits That Affected Retention Decisions</th>
<th>CTT n</th>
<th>%</th>
<th>NWP n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rediscovered/affirmed teaching as a calling</td>
<td>37</td>
<td>25.7</td>
<td>12</td>
<td>4.3</td>
</tr>
<tr>
<td>Opportunities for inner work</td>
<td>34</td>
<td>23.6</td>
<td>4</td>
<td>1.4</td>
</tr>
<tr>
<td>Rejuvenation</td>
<td>30</td>
<td>20.8</td>
<td>75</td>
<td>27.2</td>
</tr>
<tr>
<td>Community and people</td>
<td>29</td>
<td>20.1</td>
<td>92</td>
<td>33.3</td>
</tr>
<tr>
<td>Opportunities for reflection</td>
<td>22</td>
<td>15.3</td>
<td>9</td>
<td>3.3</td>
</tr>
<tr>
<td>Learned to take better care of self</td>
<td>12</td>
<td>8.3</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Increased confidence</td>
<td>7</td>
<td>4.9</td>
<td>25</td>
<td>9.1</td>
</tr>
<tr>
<td>Relationships improved</td>
<td>7</td>
<td>4.9</td>
<td>4</td>
<td>1.4</td>
</tr>
<tr>
<td>Became a better teacher</td>
<td>5</td>
<td>3.5</td>
<td>28</td>
<td>10.1</td>
</tr>
<tr>
<td>Became more student-focused</td>
<td>3</td>
<td>2.1</td>
<td>18</td>
<td>6.5</td>
</tr>
<tr>
<td>Took on leadership roles</td>
<td>2</td>
<td>1.4</td>
<td>18</td>
<td>6.5</td>
</tr>
<tr>
<td>Inspired to pursue advanced degrees</td>
<td>1</td>
<td>0.7</td>
<td>10</td>
<td>3.6</td>
</tr>
<tr>
<td>Personal writing and teaching of writing</td>
<td>1</td>
<td>0.7</td>
<td>38</td>
<td>13.8</td>
</tr>
<tr>
<td>New ideas for teaching</td>
<td>0</td>
<td>0.0</td>
<td>59</td>
<td>21.4</td>
</tr>
</tbody>
</table>

Geil
Question #2: As you look back on your [CTT retreat series or NWP Summer Institute] experience, what stands out as the most valuable part to you?

<table>
<thead>
<tr>
<th>Most Valuable Part of PD Experience</th>
<th>CTT</th>
<th>%</th>
<th>NWP</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community and people</td>
<td>57</td>
<td>39.6</td>
<td>131</td>
<td>47.5</td>
</tr>
<tr>
<td>Clearness committee &amp; other CTT activities</td>
<td>55</td>
<td>38.2</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Time</td>
<td>43</td>
<td>29.9</td>
<td>36</td>
<td>13.0</td>
</tr>
<tr>
<td>Reflection</td>
<td>41</td>
<td>28.5</td>
<td>7</td>
<td>2.5</td>
</tr>
<tr>
<td>Inner work &amp; “Teaching who we are”</td>
<td>36</td>
<td>25.0</td>
<td>7</td>
<td>2.5</td>
</tr>
<tr>
<td>Deep conversations</td>
<td>17</td>
<td>11.8</td>
<td>4</td>
<td>1.4</td>
</tr>
<tr>
<td>Rejuvenation</td>
<td>16</td>
<td>11.1</td>
<td>5</td>
<td>1.8</td>
</tr>
<tr>
<td>Safe environment</td>
<td>10</td>
<td>6.9</td>
<td>11</td>
<td>4.0</td>
</tr>
<tr>
<td>Taking care of self</td>
<td>6</td>
<td>4.2</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Validation/Confidence</td>
<td>6</td>
<td>4.2</td>
<td>13</td>
<td>4.7</td>
</tr>
<tr>
<td>Sharing ideas/Learning with others</td>
<td>4</td>
<td>2.8</td>
<td>55</td>
<td>19.9</td>
</tr>
<tr>
<td>New teaching ideas</td>
<td>1</td>
<td>0.7</td>
<td>82</td>
<td>29.7</td>
</tr>
<tr>
<td>Personal writing</td>
<td>0</td>
<td>0.0</td>
<td>84</td>
<td>30.4</td>
</tr>
<tr>
<td>NWP activities (teaching demos, writing groups)</td>
<td>0</td>
<td>0.0</td>
<td>34</td>
<td>12.3</td>
</tr>
<tr>
<td>Walking in students’ shoes</td>
<td>0</td>
<td>0.0</td>
<td>29</td>
<td>10.5</td>
</tr>
<tr>
<td>Research opportunities</td>
<td>0</td>
<td>0.0</td>
<td>17</td>
<td>6.2</td>
</tr>
</tbody>
</table>
APPENDIX H. LEVEL OF INVOLVEMENT SENSITIVITY ANALYSIS

**Before Matching**

<table>
<thead>
<tr>
<th>MBI Subscale</th>
<th>CTT (n=144)</th>
<th>NWP (n=276)</th>
<th>Mean Diff</th>
<th>Std Mean Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Exhaustion</td>
<td>20.87</td>
<td>20.01</td>
<td>0.86</td>
<td>0.08</td>
</tr>
<tr>
<td>Cynicism</td>
<td>4.15</td>
<td>4.33</td>
<td>-0.18</td>
<td>-0.04</td>
</tr>
<tr>
<td>Professional Efficacy</td>
<td>41.21</td>
<td>40.64</td>
<td>0.57</td>
<td>0.11</td>
</tr>
</tbody>
</table>

**After Matching (Without Level of Involvement)**

<table>
<thead>
<tr>
<th>MBI Subscale</th>
<th>Subclass 1</th>
<th>Subclass 2</th>
<th>Subclass 3</th>
<th>Subclass 4</th>
<th>Subclass 5</th>
<th>Subclass 6</th>
<th>Weighted Effect Size*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Exhaustion</td>
<td>0.49</td>
<td>0.03</td>
<td><strong>-0.49</strong></td>
<td>0.06</td>
<td>0.06</td>
<td>0.81</td>
<td>0.12</td>
</tr>
<tr>
<td>Cynicism</td>
<td>0.13</td>
<td><strong>-0.48</strong></td>
<td><strong>-0.19</strong></td>
<td>0.33</td>
<td>0.67</td>
<td>0.8</td>
<td>0.18</td>
</tr>
<tr>
<td>Professional Efficacy</td>
<td><strong>0.14</strong></td>
<td><strong>0.53</strong></td>
<td><strong>0.14</strong></td>
<td><strong>0.54</strong></td>
<td>-0.07</td>
<td>-0.75</td>
<td><strong>0.13</strong></td>
</tr>
</tbody>
</table>

**After Matching (With Level of Involvement)**

<table>
<thead>
<tr>
<th>MBI Subscale</th>
<th>Subclass 1</th>
<th>Subclass 2</th>
<th>Subclass 3</th>
<th>Subclass 4</th>
<th>Subclass 5</th>
<th>Subclass 6</th>
<th>Weighted Effect Size*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Exhaustion</td>
<td>0.47</td>
<td>0.07</td>
<td><strong>-0.21</strong></td>
<td><strong>-0.05</strong></td>
<td>0.68</td>
<td>0.70</td>
<td>0.25</td>
</tr>
<tr>
<td>Cynicism</td>
<td>0.16</td>
<td><strong>-0.62</strong></td>
<td><strong>-0.03</strong></td>
<td>0.08</td>
<td>0.66</td>
<td>0.80</td>
<td>0.14</td>
</tr>
<tr>
<td>Professional Efficacy</td>
<td><strong>-0.04</strong></td>
<td><strong>0.66</strong></td>
<td><strong>0.34</strong></td>
<td><strong>0.40</strong></td>
<td>-0.72</td>
<td>-0.66</td>
<td><strong>0.03</strong></td>
</tr>
</tbody>
</table>

**Note.** Bold font indicates higher engagement on the part of the CTT respondents.

*Weighted Effect Size is weighted by the number of cases in the treatment (CTT).