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(Re)Centering the discourse and practice of caring labor:
The intersection of feminist thought and cooperative childcare

By

Rebecca Ann Matthew

A dissertation submitted in partial satisfaction of the

requirements for the degree of

Doctor of Philosophy

in

Social Welfare

in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:

Professor Jill Duerr Berrick, Chair

Professor Susan Stone

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Fall 2013

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ABSTRACT

(Re)Centering the discourse and practice of caring labor:
The intersection of feminist thought and cooperative childcare

by

Rebecca Ann Matthew

Doctor of Philosophy in Social Welfare

University of California, Berkeley

Professor Jill Duerr Berrick, Chair

This dissertation examines a range of differences among for-profit, non-profit, and cooperative childcare centers using cross-sectional survey data obtained from approximately 748 childcare centers and 2,743 staff members throughout Canada. I make use of feminist theories of care to critically analyze the ways in which for-profit, non-profit, and cooperative childcare centers “value” this type of care, as evidenced by several indicators of labor quality (e.g., wages, benefits, advancement opportunity, workplace social capital). The following research questions guided this inquiry:

- (1) In what ways do employee labor conditions (e.g., wages) in cooperatives differ from non-profit and for-profit childcare centers?
- (2) In what ways do individual-level factors (e.g., # of years within childcare field) within cooperatives differ from non-profit and for-profit childcare centers?
- (3) How well do labor conditions (e.g., wages) predict turnover/intentions to leave and level of job security, controlling for the nature of the work, co-worker and supervisory relationship satisfaction, workplace social capital, decision-making practices, and quality of the work situation?
- (4) How well does auspice predict various labor conditions (e.g., gross wages), controlling for individual-level factors (e.g., education level, age)?

And, (5) How well does auspice predict turnover/intentions to leave and level of job security, controlling for: individual-level factors; gross hourly wages; pay/benefit/promotional opportunity satisfaction; unionization; promotional opportunities; professional development; the nature of the work; co-worker and supervisory relationship satisfaction; workplace social capital; organizational influence and decision-making practices; and quality of the work situation?

Findings indicate that much like previous research demonstrating a non-profit labor advantage (e.g., Doherty, Friendly, & Forer, 2002), cooperatives also tend to “value” this labor to a greater extent than do for-profit centers, as evidenced by: higher wages; greater employee satisfaction with pay, benefits, and promotional opportunities; better assessments of work situation (e.g., my work gives me a sense of accomplishment); higher levels of de-centralization (i.e., extent to which others can and do have input into decision-making), formalization (i.e., extent to which roles and responsibilities are standardized and explicit), and overall organizational influence; as well as, greater odds of unionization, participation in professional development, and intentions to remain working in the childcare field. And, cooperative employees in particular, reported the *highest* levels of de-centralized decision-making practices.

This study represents the largest analysis of differences in labor conditions among for-profit, non-profit, *and* cooperative childcare centers to date—the findings from which have implications in several domains. First, these data underscore the need for continued research and development of non-profit and cooperative models of childcare, given the ways in which they outperformed for-profit centers with respect to several indicators of labor quality. Second, a (re)assessment of current union legislation is also merited, based on the strong, positive association between unionization and hourly wages. Third, further development and codification of de-centralized decision making practices, given their demonstrated associations with enhanced service quality. Forth, further development and enhancement of educational advancement opportunities among early childhood educators—to include the creation of a work climate that more adequately supports more highly educators providers (e.g., greater mentoring opportunities, higher salary, lower turnover)—appears necessary given the findings that more highly educated staff are less likely to remain in the field. And, finally, there is a call for continued use of research concerning childcare labor to inform and enrich the theoretical dialogue concerning caring labor more generally.

DEDICATION

Dedicated to childcare workers.

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INTRODUCTION & STATEMENT OF RESEARCH QUESTIONS

The United States is currently facing a “child-care crisis” (Smith, 2010). Recent estimates suggest that approximately 62% of non-school aged children (ages 0 – 6) are in need of time-and labor-intensive non-custodial care (Capizzano & Adams, 2004; National Association of Child Care, 2010; Park-Jadotte, Golin & Gault, 2002); the associated costs of which are beginning to constitute an alarming percentage of family income (Morris & Helburn, 2000). Based on data obtained from the National Survey of American Families, Giannarelli and Barsimantov (2000) estimate that nearly 50% of U.S. families report childcare expenses, the average cost of which constitutes 9% of net¹ monthly earnings. Among single parent, “low-earning” families (i.e., earnings not to exceed 200% of the FPL) and those families earning less than the FPL, costs consume a staggering 19% and 23% of net monthly earnings respectively.

Given the rising demand for childcare, its associated high costs, and the mounting body of “neuro-scientific research demonstrating that loving, stable, secure, and stimulating relationships with caregivers in the earliest months and years of life are critical for every aspect of a child’s development,” the quality of care environments has also taken on increasing importance (UNICEF, 2008, p. 1). Research has demonstrated, for example, that high quality childcare (particularly among low-income families) is associated with improved social, cognitive, and language development (e.g., National Institute of Child Health and Human Development Early Child Care Research Network, 1996, 2000, 2003; NICHD and Duncan 2003); enhanced social-emotional development (Gomby & Larner, 1995; Love et al., 2003; Peisner-Feinberg, et al., 2000); and, greater school-related achievement and lower rates of remediation and juvenile delinquency (Brooks-Gunn, 2003; Reynolds, Temple, Robertson, & Mann, 2002). Many of these effects have, moreover, been found to carry over into elementary, high school, and beyond into adulthood (Brooks-Gunn, 2003; Campbell et al. 2001; NICHD and Duncan 2003; Peisner-Feinberg et al. 1999; Vandell et al., 2010).

Of those factors shown to be associated with quality childcare, the labor conditions and work environment of care staff/providers consistently emerge among the most significant². Specifically, higher staff wages (Doherty, Friendly, & Forer, 2002; Goelman, Forer, Kershaw, Doherty, Lero, & LaGrange, 2006; Whitebook, 1999; Whitebook, Howes, & Phillips, 1998), provision of staff benefits (Whitebook, Howes, & Phillips, 1990; Whitebrook, Howes, & Phillips, 1989); higher levels of staff education and training (NICHD Early Child Care Research Network, 1996; Whitebook, Howes, & Phillips, 1990; Burchinal, Cryer, Clifford, & Howes, 2002; Goelman, Forer, Kershaw, Doherty, Lero, LaGrange, 2006), higher levels of experience

¹ Although Giannarelli and Barsimantov (2000) do not state explicitly whether figures concerning “earnings” are derived from net or gross income, a more detailed examination of the 1997 National Survey of American Families indicates that earnings were originally calculated based on net earnings. (<http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/4581>). As such, it is assumed herein that the figures presented by Giannarelli and Barsimantov (2000) represent a percentage of *net* monthly household earnings.

² Other significant factors include: lower teacher-to-child ratios (Doherty, Friendly, & Forer, 2002; Goelman, Forer, Kershaw, Doherty, Lero, & LaGrange, 2006; Korjenevitch, & Dunifon, 2010; Whitebrook, Howes, & Phillips, 1989) and appropriate group sizes (Korjenevitch & Dunifon, 2010; Peisner-Feinberg et al., 1999; Phillipsen, Burchinal, Howes, & Cryer, 1997).

among teachers/staff (Peisner-Feinberg et al., 1999; Phillipsen, Burchinal, Howes, & Cryer, 1997); low staff turnover (Korjanevitch & Dunifon, 2010; Love et al., 2003; Scarr, Eisenberg, & Deater-Deckard, 1994; Whitebook, Howes, & Phillips, 1990); higher levels of workplace social capital (Leana and Pil, 2006, 2009); and a work environment in which roles and responsibilities are standardized and made explicit (i.e., high “formalization”), as well as de-centralized decision making structures (i.e., low “centralization”) (Doherty, Friendly, & Forer, 2002; Friesen, 1995; Lyon & Canning, 1999) have all demonstrated positive associations with quality.

Despite these findings—and the social implications thereof—current research indicates that the labor conditions of nearly 1.3 million U.S. childcare workers (approximately 1% of the overall workforce) are less than optimal: as evidenced by chronically low—at times poverty-level—wages, poor (if any) benefits (e.g., medical, retirement, sick days), and lack of advancement opportunities (e.g., Bureau of Labor Statistics, 2005; Cleveland, et al., 2007; Whitebook & Sakai, 2004). These conditions are, moreover, thought to directly contribute to a median job tenure of only 2.7 years and an annual turnover rate of approximately 30%—a rate nearly *twice* that of most occupations, including other child-related jobs such as elementary school teacher (Deery-Schmitt & Todd, 1995; Doherty-Derkowski, 1995; Whitebook & Sakai, 2003). As suggested by Smith (2010): “The discussions [of the “child-care crisis”] frequently fail to appreciate that child care is also a labor issue, and that a critical connection exists between affordable, quality child care, on the one hand, and the economic status of the child-care workforce, on the other hand” (p.1).

In attempting to explore said connection, several scholars have questioned the extent to which organizational structure among childcare auspices impacts labor conditions. And, given that the United States among other nations (e.g., Canada) has developed a mixed center-based childcare industry, primarily comprised of for-profit/commercial and non-profit, much of this research has focused specifically on differences between these two auspices (e.g, Cleveland, et al., 2007). Towards this end, research has demonstrated a labor advantage among non-profit as compared to for-profit providers, as evidenced by higher wages and improved benefits (e.g., Sosinsky, Lord, & Zigler, 2007), lower staff-to-child ratios (e.g., Cleveland & Krashinsky, 2009), higher levels of teacher education and certification (Cleveland, Forer, Hyatt, Japel and Krashinsky, 2007), higher levels of social support among staff (Doherty, Friendly, & Forer, 2002), greater opportunities for advancement (Doherty, Friendly, & Forer, 2002), and lower rates of overall turnover (Cleveland, 2008).

Several scholars suggest, however, that the for- vs. non-profit distinction may be too simplistic and actually masks sub-sector³ differences that may be critical to the identification of high quality models—both in terms of the services received and the conditions under which they are rendered (e.g., Morris & Helburn, 2000). Although limited by small sample sizes, some research (e.g., Coontz & Esper, 2003; Morris & Helburn, 2000; Pestoff, 2000) has begun to explore sub-

³ Please note that based on the language conventionally utilized in previous research examining differences in labor conditions and quality outcomes among for-profit, non-profit, and cooperative childcare centers (e.g., Cleveland, 2008; Cleveland & Krashinsky, 2009; Doherty, Friendly, & Forer, B., 2002; Doherty, Lero, Goelman, LaGrange, & Tougas, 2000; Goelman, Forer, Kershaw, Doherty, Lero & LaGrange, 2006) the current research utilizes the language of “sector” and “sub-sector” to discuss differences among these auspices—as these organizations operate in divergent sectors of the market. This language is utilized while recognizing that the analysis of auspice (for-profit, non-profit, and cooperative) does, however, occur at the organizational level.

sector differences and suggests that one non-profit sub-sector model in particular—cooperatives—demonstrates improved labor conditions in child care (e.g. improved wages and enhanced decision-making opportunities) and receives some of the highest overall quality ratings. It is suggested that the so-called “cooperative advantage” (Spear, 2000) might be due to its unique organizational structure that emphasizes, for example, greater staff and client/parental participation and de-centralized decision-making structures (Pestoff, 2000). It remains, however, to be empirically demonstrated that cooperatives, as compared to independent non-profit and for-profit models, offer their employees enhanced working environments.

As such, my research has attempted to further this scholarship by examining a range of differences between for-profit, non-profit, and cooperative childcare centers. I make use of feminist theories of care to critically analyze the ways in which for-profit, non-profit, and cooperative childcare centers, “value” this type of care (e.g., wages, benefits, decentralized decision-making) and how, in turn, this may impact labor conditions, turnover, and job stability among childcare workers. More specifically, my project utilized the following research questions to guide this inquiry:

(1) In what ways do employee labor conditions (e.g., wages) in cooperatives differ from non-profit and for-profit childcare centers?

(2) In what ways do individual-level factors (e.g., # of years within childcare field) within cooperatives differ from non-profit and for-profit childcare centers?

(3) How well do labor conditions (e.g., wages) predict turnover/intentions to leave and level of job security, controlling for the nature of the work, co-worker and supervisory relationship satisfaction, workplace social capital, decision-making practices, and quality of the work situation?

(4) How well does auspice predict various labor conditions (e.g., gross wages), controlling for individual-level factors (e.g., education level, age)?

And, (5) How well does auspice predict turnover/intentions to leave and level of job security, controlling for: individual-level factors; gross hourly wages; pay/benefit/promotional opportunity satisfaction; unionization; promotional opportunities; professional development; the nature of the work; co-worker and supervisory relationship satisfaction; workplace social capital; organizational influence and decision-making practices; and quality of the work situation?

(please see Appendices A-E for graphical representations of each question)

CHAPTER 1: LITERATURE REVIEW⁴

Guided by the aforementioned research questions, the following section will present a brief review of research concerning the primary dependent, independent, and control variables considered in the current research. Towards this end this section will include: (1) scholarship concerning childcare labor conditions; (2) research exploring the relationship of childcare auspice (i.e., non-profit, for-profit, and cooperative childcare centers) on labor conditions; and, (3) a review of research exploring sub-sector differences in labor conditions, particularly those found within cooperatives.

SECTION 1: CHILDCARE LABOR CONDITIONS

The vast majority of research examining labor conditions has focused on burnout specifically and turnover more generally within the sector (e.g., Fuqua, 1986; Goelman & Guo, 1998; Manlove, 1993). Although explicitly concerned with exploring the conditions that give rise to a turnover rate (30%) nearly twice that of most occupations (Deery-Schmitt & Todd, 1995; Doherty-Derkowski, 1995; Whitebook & Sakai, 2003), several scholars have also highlighted the ways in which this affects children. Many argue that high turnover threatens to disrupt the trusting, secure relationships needed by infants and children to foster healthy social, emotional, and academic development (Howes & Hamilton, 1993; Friesen, 1992; Love et al., 1993; Scarr, Eisenberg, & Deater-Deckard, 1994; Whitebook, Howes, & Phillips, 1990). More specifically, the loss of stable relationships with care providers as a result of high turnover is reportedly associated with several negative outcomes, to include: increased behavioral problems (Love et al., 2003), impaired language and social development (Whitebook, Howes, & Phillips, 1990), and inappropriate social behavior (e.g., higher rates of aggression) (Howes & Hamilton, 1993; Scarr, Eisenberg, & Deater-Deckard, 1994).

Of those labor-related factors associated with burnout and high turnover, low or inadequate wages and poor working conditions; breaks/time-outs, and lack of advancement opportunities; staff education and work experience; poor communication and/or opportunities to promote social support/social capital development among staff; and, levels of formalization and centralization

⁴ As evidenced throughout the current literature review, research concerning the labor conditions of childcare workers has taken a precipitous downturn since the late 1990s/early 2000s [e.g., following the National Child Care Staffing Study (Whitebook et al., 1989; Whitebook et al., 1994) Cost, Quality, and Child Outcomes Study (Helburn, 1995); *You Bet I Care!* (Doherty et al., 2000)]. In attempt to determine the cause for this turn, I conducted informal interviews with two of the field's leading scholars—Dr. Carollee Howes, with the Graduate School of Education at UCLA; and, Dr. Marcy Whitebook, with the Center for the Study of Childcare Workforce at UC Berkeley. As evidenced by the dearth of large-scale research investigations concerning the current labor conditions of childcare workers (pace the Canadian study—*You Bet We Still Care!*—currently engaged in data collection), Carollee Howes suggested that there was little recent research conducted on childcare labor in particular. Elaborating further, Dr. Whitebook indicated that the field appears to have largely pulled away from examining labor conditions from a structural perspective (e.g., monitoring wages, working conditions, etc.) and has instead shifted towards a more micro-focus on *job crafting* among childcare workers. As such a definition and consideration of job crafting and, more specifically, its connection to workplace social capital will be explored in the current review (pp. 9-11) and proposed research.

consistently emerge among the most significant (Blau, 1990; CCCF & CCAAC, 1992; Granger, 1989; Jorde-Bloom, 1982, 1988; Kontos & Stremmel, 1988; Manlove, 1993; Modigliani, 1986; Mullis, Ellet & Mullis, 1986; Pettygrove, Whitebook & Weir, 1984; Stremmel, Benson & Powell, 1993; Townley, Thornburg & Crompton, 1991; Leana and Pil, 2006, 2009; Whitebook, Howes, & Phillips, 1989).

1.1. Wages and benefits

Large-scale, national studies conducted within the United States (Whitebook, Howes, & Phillips, 1989) and Canada (CCCF & CCAAC, 1992) report that the annual wages of childcare workers are, on average, less than one-half and one-third those of comparably educated women and men in other professions respectively. In addition to low salaries, Whitebook and colleagues (1989) underscore the fact that limited, if any, benefits (e.g., health, retirement, etc.) have come to define the sector. Similar findings have been replicated among several state and local studies of childcare labor (Blau, 1990; Jorde-Bloom, 1982, 1988; Kontos & Stremmel, 1988; Manlove, 1993; Modigliani, 1986; Mullis, Ellet & Mullis, 1986; Pettygrove, Whitebook & Weir, 1984; Shpancer et al., 2008; Stremmel, Benson & Powell, 1993; Townley, Thornburg & Crompton, 1991; Whitebook, Howes, & Phillips, 1989).

For example, based on data obtained from 32 randomly selected childcare centers in San Francisco, Whitebook and colleagues (1981) found the salaries of staff to be in the lowest 10% of adult wage earners nationally, despite nearly 70% of them holding a bachelor's degree or higher. During interviews, staff identified low pay as what they "least like" about their jobs and often cited it as a cause of turnover. In addition to low-wages, 58% of the staff received no medical coverage and 16% received no paid sick leave (Whitebook, Howes, Darrah, & Friedman, 1981). Those centers offering the least benefits were, moreover, found to have the highest turnover rates. Within Pennsylvania, Kontos and Stremmel (1988) reported that 32.5% of surveyed staff identified wages as "what they least liked about their jobs" (p. 83). In addition, 42.5% of staff members lacked medical insurance, 70% lacked dental insurance, 75% reported no compensation for overtime, and 45% lacked any maternity leave.

Based on a sample of 303 childcare workers in North Carolina, Lindsay and Lindsay (1987) report that between 82% - 92% of all surveyed workers agreed with the statement: "Many committed child care workers are leaving the profession because of low salaries." Also among this sample, researchers found that among teachers and teaching assistants only 16% received health insurance, and between 2% (assistants) and 8% (teachers) received retirement benefits. Within Michigan, Modigliani (1986) reported the hourly wages of childcare staff to be approximately one-half those of local public school teachers. The significance of this finding is, furthermore, compounded given that approximately 80% of care providers reported working *unpaid* overtime weekly, and 20% reported more than two hours of unpaid overtime *daily*. Also, less than 25% of centers studied provided health insurance, and most failed to provide any paid vacation time or pension/retirement benefits. And, based on a more recent study of childcare labor conditions within the San Francisco Bay Area, Whitebook and Sakai (2004) report similar findings based on their sample of 659 teachers (435 teachers, 182 assistant teachers and 42 teacher-directors) employed within 75 mid-sized (serving an average of 72 children) predominantly non-profit (53%) centers, serving a largely (65%) middle-income, racially (~39%

children of color), and linguistically (~50% children whose home language other than English) diverse population (p.15-6). Despite the fact that 37% of teachers held a bachelor's degree in addition to an average of 11 years working within the childcare field (p. 17), the mean hourly rate for teachers was \$13.52 or \$24,606 annual salary (p.17), which constitutes two-thirds of the local self-sufficiency wage, defined as the minimal income needed to acquire basic needs without public or private assistance (Pearce & Brooks, 2002).

1.2. Breaks/time-outs and lack of advancement opportunities

Other work-related factors associated with employee dissatisfaction and turnover, include the distribution of labor hours while working and lack of advancement opportunities (Fuqua, & Couture, 1986; Maslach & Pines, 1977; Robinson, 1979; Shpancer et al., 2008; Whitebook, Howes, Darrah & Friedman, 1981). Amongst their San Francisco-based sample, Whitebook and colleagues (1981) found that of those factors consistently identified as unsatisfactory and associated with turnover more generally were: (1) unpaid work time (i.e., associated with, for example, class preparation and parent contact) experienced by 72% of the sample, (2) lack of breaks throughout the day (i.e., due a general lack or inability due to inadequate staffing) reported by nearly one-third of the sample, and (3) lack of advancement opportunities (Whitebook, Howes, Darrah & Friedman, 1981). The latter finding was also echoed in Robinson's (1979) 2-year longitudinal study, in which nearly 10% of those who left childcare work cited a lack of advancement opportunities as the cause. And, Maslach and Pines (1977) found that the ability to take breaks, so-called "time-outs," was consistently associated with improved employee satisfaction within daycare settings and lower levels of burnout (e.g., fewer reports of impatience, irritability, and strain).

1.3. Education and work history/experience

Research has also identified several individual-level characteristics related to childcare-related burnout, employee dissatisfaction, and turnover, namely: education level and work history and/or experience (Burchinal, Cryer, Clifford & Howes, 2002; Freudenberger, 1977; Goelman & Guo, 1998; Maslach & Pines, 1977; Mullis, Ellet & Mullis, 1986; Powell & Stremmel, 1989; Townley, Thornburg & Crompton, 1991). Based on their sample of municipal, non-profit, and private childcare centers, Maslach and Pines (1977) found that higher education levels among staff to be associated with improved job satisfaction and lower burnout. Mullis and colleagues (1986) also report a positive association between higher levels of education, training, and work experience and job satisfaction.

1.4. Communication, social support, and workplace social capital

Several researchers have also highlighted the importance of supportive communication patterns, which are suggested to enhance social support and possibly buffer against burnout and turnover (Freudenberger, 1977; Jorde-Bloom, 1988; Kontos & Stremmel, 1988; Manlove; 1993, 1994; Maslach & Pines, 1977; Seiderman, 1978; Townley, Thornburg & Crompton, 1991). It is thought that the presence of regular staff meetings, in particular, serve several functions, to include: "enabling the staff to socialize informally, to give each other support, to confer about problems

with children (and also with parents), to clarify their goals for themselves and for the center, and to exert some direct influence on the policies of the center” (Maslach & Pines, 1977, p. 108).

Effective communication and social support are not unrelated to the concept of workplace social capital and its links to job crafting. As suggested by Dr. Marcy Whitebook (personal communication, Fall 2011), with the Center for the Study of Childcare Workforce at UC Berkeley, much of the research concerning childcare labor conditions has demonstrated a transition away from a structural perspective (e.g., monitoring wages, working conditions, etc.) and has instead shifted towards a more micro-focus on “job crafting” (e.g., Leanna, Appelbaum & Shevchuk, 2009). As defined by Wrezesniewski and Dutton (2001), job crafting encompasses the “physical and cognitive changes individuals make in the task or relational boundaries of their work.” (p. 179). Although not minimizing the impact of “structural constraints” (e.g., economic constraints, occupational status, organizational values), this stream of research focuses primarily on the ways in which *individuals* can, as suggested by Berg and colleagues (2008) “redesign their own jobs in ways that can foster job satisfaction, as well as engagement, resilience and thriving at work” (p.3).

Much of this research has discerned that, particularly among lower-level employees, building trust and developing/sustaining positive relationships among co-workers is *central* to job crafting (Berg et al., 2010; Kahn, 2007; Kira, van Eijnatten & Blakin, 2010; Leanna, Appelbaum & Shevchuk, 2009). For example, based on surveys obtained from 232 teachers and aides working in 62 childcare centers, Leana and colleagues (2009) found that collaborative job crafting (employees and supervisors) was associated with greater employee satisfaction, commitment, and job attachment (e.g., lower turnover). Foundationally important to such collaborative efforts were, moreover, feelings of trust and positive relationships among co-workers and supervisors.

Given the noted emphasis on trust and relationship establishment/maintenance, several scholars have underscored the ways in which job crafting is particularly influenced by workplace social capital, understood to “...represent the value of social connections, or the resources that can be mobilized through relationships with others at work” (Leana, Appelbaum & Shevchuk, 2009; Leana & Pil, 2006, 2009; Leana & Van Buren, 1999; Ochsner, Leana & Appelbaum, 2009, p. 28). For example, based on their research among public school teachers, Leana and Pil (2006, 2009) report that social capital was at least as important as human capital (e.g., teacher education) in predicting improved student learning. And, Hodsdon (2005, 2008) argues further that supervisory/managerial behavior is critically important in influencing the creation and enhancement of said capital. Finally, in an attempt to summarize findings from an workplace social capital perspective, Ochsner and colleagues (2009) provide several factors that promote its development, namely: “leaderships that promoted workforce stability, trust, and associability; interpersonal relations and information sharing; and, promoting trust and stability through positive human resource practice including wages, health and educational benefits, and training” (p. 33-34).

1.5. Level of formalization & centralization

Formalization is understood as the “extent to which roles and responsibilities are standardized and explicit,” while centralization is the “degree to which decision-making is concentrated as a

single point and the extent to which others can and do have input into a decision” (Doherty, Friendly, & Forer, 2002, p. 24). Unclear or ambiguous roles and responsibilities (i.e., lack of job descriptions) have been identified as a source of employee dissatisfaction, burnout, and turnover (Boyd & Pasley, 1989; Freudenberg, 1977; Fuqua & Couture, 1986; Jorde-Bloom, 1988; Kontos & Stremmel, 1988; Manlove, 1993; Maslach & Pines, 1977; Mattingly, 1977; Pines & Maslach, 1980; Whitebook, Howes, & Phillips, 1989; Whitebook, Howes, Darrah, & Friedman, 1981). Goelman and Guo (1998) suggests that: “Unclear and overlapping responsibilities can make it difficult for child caregivers to define their job expectations and to evaluate their performance and their success on the job” (p. 182). Based on a sample of 24 childcare centers in Colorado, Boyd and Pasley (1989) report that role ambiguity was the strongest predictor of emotional exhaustion and depersonalization (two to three defined subscales of burnout) among survey respondents. Similarly, among a sample of 188 childcare workers in Pennsylvania, Manlove (1993) reports significant, positive associations between role conflict, role ambiguity, and burnout. Regarding the degree of centralization, Whitebook and colleagues (1981) report staff dissatisfaction associated with the hierarchical decision-making arrangements, while Maslach and Pines (1977) found associations between increased decision-making ability and employee satisfaction.

1.6. Nature of the work

In contrast to the aforementioned indicators associated with employee dissatisfaction, burnout, and turnover, one factor is thought to contribute to employee satisfaction and, thereby, potentially buffer against turnover, namely the “nature of the work” (i.e., working with children). Within two statewide samples, 78% (Whitebook, Howes, Darrah, & Friedman, 1981) and 90% (Kontos & Stremmel, 1988) of childcare workers surveyed respectively identified their work with children as the most pleasurable and engaging aspects of their work. And, in a longitudinal study of childcare workers, Robinson (1979) found that childcare staff identified “watching children learn, grow, and develop” as the most satisfying aspect of their work (p. 286). As such, the impact of the “nature of the work” will be explored as a potential moderator between labor conditions and turnover and job stability, particularly in attempting to explain potential differences found among auspices. Towards the latter, the following section will present research detailing differences among childcare auspices, specifically for-profit, non-profit, and cooperatives.

SECTION 2: RESEARCH EXPLORING THE IMPACT OF AUSPICE ON LABOR CONDITIONS

2.1. Structural & goal-related differences between for- and non-profit organizations

Structurally, non-profits are distinguished from for-profits based on two primary characteristics: a “non-distribution constraint” and the lack of owners (Hansmann, 1980; Koning, Noailly, & Visser, 2007). That is to say, non-profits must reinvest surplus profit back into the organization, whereas for-profits are free to distribute profits to shareholders. Additional distinguishing factors are found within the areas of governance, focus/mission, resources, and values. For example, community members generally comprise non-profit governing boards (e.g., in the case of childcare: parents, educators, local community members, etc.), while shareholders, who in some

respects have a vested interest in the economic profitability of the organization, govern for-profits. As such, the primary focus of for-profits is market-driven profit maximization, whereas non-profits are thought to be more concerned with their mission and quality of services provided therein (Friesen, 1992). With regard to resources, non-profit organizations are able to make use of in-kind donations and some degree of volunteer labor, while for-profit revenues are typically generated through sales and their staff is paid (Leviten-Reid, 2010; Salamon, 2012). Finally, based on a sample of 731 non-profit organizations throughout the United States (in the areas of human services, community development, and the arts), the John Hopkins Center for Civil Society Studies highlights the following as core values within the non-profit sector: productive (e.g., creating jobs), empowering (e.g., mobilizing & empowering citizens), effective (e.g., providing accessible high-quality programming), enriching (e.g., providing learning and growth opportunities), reliable (e.g., demonstrating longevity), responsive (e.g., meeting unmet community needs), and caring (e.g., serving underserved populations). Survey respondents also suggest that non-profits better exemplify the core values of caring, enriching, and empowering as compared to for-profits, whereas both organizational forms demonstrated the values of responsiveness, reliability, effectiveness, and productivity relatively equally (Salamon, Geller & Newhouse, 2012).

Several scholars have questioned the ways in which these structural differences and overall divergent organizational goals between for-profits and non-profits—particularly in relation to the provision of social goods (e.g., childcare, healthcare, etc.)—may in fact jeopardize quality more generally and labor conditions more specifically (Cleveland & Krashinsky, 2009; Doherty, Friendly & Forer, 2002; Friesen, 1992; Hansmann, 1980; Koning, Noailly, & Visser, 2007; Noailly & Visser, 2009; Pestoff, 2000).

2.2. Differences in adult work environment by auspice

In exploring the ways in which the labor conditions of non-profits distinguish themselves from for profits, research suggests that non-profit child care centers typically pay higher wages and offer better benefits (Cleveland, 2008; Cleveland & Krashinsky, 2004; Cleveland & Krashinsky, 2009; Doherty, Friendly & Forer, 2002; Sundell, 2000; Sosinsky, Lord, & Zigler, 2007), evidence higher levels of teacher education and certification (Cleveland, Forer, Hyatt, Japel and Krashinsky, 2007; Phillips, Howes & Whitebook 1992; Sosinsky, Lord, & Zigler, 2007), higher levels of social support among staff (Doherty, Friendly, & Forer, 2002), greater opportunities for advancement (Doherty, Friendly, & Forer, 2002), and lower rates of turnover (Cleveland, 2008; Cleveland & Krashinsky, 2004; Doherty, Friendly, & Forer, 2002; CCCF & CCAAC, 1992; Phillips, Howes & Whitebook 1992; Sosinsky, Lord, & Zigler, 2007).

Several large-scale, national studies conducted in the United States and Canada have explored differences among for- and non-profit childcare centers concerning not only quality, but also labor conditions (e.g., wages, benefits, decision-making structures, etc.) (Canadian Child Care Federation [CCCF] & Child Care Advocacy Association of Canada [CCAAC], 1992; Cleveland and Krashinsky, 2004; Doherty et al., 2002; Friesen, 1995; Lyon & Canning, 1999; Whitebook et al., 1990). Within the national *Caring for A Living Study* conducted throughout Canada, researchers found that municipal and non-profit centers were more likely to offer their employees general benefits (e.g., paid vacation, sick time, health insurance), in addition to fringe

benefits, such as paid time for class preparation during working hours (CCCF & CCAAC, 1992). Based on an analysis of the *You Bet I Care!*, a subsequent nationwide study conducted in Canada, researchers found that non-profit, as compared to for-profit, childcare centers had higher wages, more training, and lower turnover rates (Doherty, Lero, Goelman, LaGrange & Tougas, 2000). Within the United States, Whitebook and colleagues' (1981, 1990) reported higher education levels and early childhood education certification among non-profit as compared to for-profit center-based childcare providers, and found the highest rates of turnover among proprietary centers.

Based on a more recent analysis of childcare data obtained during the *You Bet I Care!* study conducted throughout Canada, Cleveland and Krashinsky (2004) report several findings based on comparisons between non-profit and for-profit centers. Among the former, they report higher quality, higher education levels among lead teachers, higher wages among lead teachers (\$11.92 vs. \$9.14 in for-profit centers), lower turnover, and a higher percentage of children receiving low-income subsidies (44.4% vs. 35.8% in for profit centers). Also exploring the *You Bet I Care!* data, Doherty and colleagues (2002) report differences in organizational structure between non-and for-profits. Namely that the former provides more role clarification (i.e., greater formalization via detailed job descriptions), clarifies employee rights and responsibilities (via, for example, formal grievance procedures), and allows staff and parents greater input into program decision-making (i.e., a more de-centralized decision making structure). These findings replicate two previous Canadian studies reporting that non-profits exhibited greater formalization and provided more opportunities for staff and parental input into decisions (Friesen, 1995; Lyon & Canning, 1999). Doherty and colleagues (2002) also note that teachers within non-profit as compared to for-profit centers reported greater satisfaction with collegial support, wage levels, benefits, advancement opportunities, and overall lower rates of turnover. Finally, by combining the data from four different Canadian data sets, totaling 644 centers, Cleveland and colleagues (2007) find that non-profits consistently exhibit higher quality than do for-profits and pay higher wages.

Similar findings were obtained among community- and state-wide studies of childcare centers in the U.S. Based on their secondary analysis of the National Institute of Child Health and Human Development Study of Early Child Care and Youth Development data, Sosinsky and colleagues (2007) report higher wages and lower turnover among non-profit as compared to for-profit centers. Based on a sample of 45 centers (32 for-profit, 13 non-profit), Friesen (1992) reports that non-profits centers, as compared to independent, for-profit centers, evidenced statistically greater quality, greater de-centralization by including more opportunities for staff and parents in decision making, offered higher wages and benefits, and had more well-educated/trained staff. And, amongst their sample of Pennsylvania childcare workers, Kontos and Stremmel (1988) find that non-profits distinguished themselves from for-profits via the provision of greater medical benefits (74%--as compared to 35% among for-profits), higher rates of maternity leave, presence of morning and afternoon breaks, and the provision of vacation days. Although a difference in turnover between the two auspices was not noted, the researchers argue that the sample area was a rather "thin" market, in which few alternative employment opportunities were available.

2.3. Drawing attention to the need for sub-sector analyses

Based on their sample of 401 childcare centers in California, Colorado, Connecticut, and North Carolina, the Cost, Quality and Child Outcome (CQCO) study reported no differences in quality between for- and non-profit centers, with the exception of North Carolina (purportedly explained by lax licensing requirements) (Helburn, 1995). Given that this finding was contrary to several other large-scale studies finding a non-profit quality advantage (e.g., Cleveland, 2008), several scholars have explored the data further. Towards this end, Morris and Helburn (2000) explored *sub-sector* differences among non- and for-profits centers within the CQCO data. Their analyses revealed higher quality ratings among independent non-profits, church-affiliated non-profits, and public centers as compared to lower quality ratings noted among church-operated, non-profit centers operated by community agencies, and all for-profit centers.

Also, based on data obtained from 227 centers in five metropolitan areas, Phillips and colleagues found similar sub-sector differences, noting significantly higher turnover rates among for-profit chains and centers as compared to non-religious, non-profit centers. In addition, the education levels among teachers employed at non-religious, non-profit centers were found to be higher than those employed within for-profit chains and centers. Based on findings such as these, several researchers have called for further attention to sub-sector differences among childcare auspices (Morris & Helburn, 2000; Perry & Rainey, 1988; Sosinsky, Lord, & Zigler, 2007). Morris and Helburn (2002) suggest, in particular, that future research: "...comparing sector performance should not be limited to profit sector comparisons that can mask differences in performance within the for-profit and non-profit sectors. This is true of any mixed industry analysis in which there is reason to expect sub-sector differences due to differences in managerial objectives" (p. 394).

2.4. A focus on sub-sectors: Cooperative possibilities?

Findings such as those noted above have inspired pointed exploration of potential differences between for-profit models and those provided within the "third sector," comprised of "co-operatives, voluntary associations, non-governmental organizations, popular movements, and nonprofit organizations" (Pestoff, 1992, p. 22) (Laville & Nyssens, 2000; Leviten-Reid, 2010; Opstal & Gijssels, 2008; Pestoff, 1992, 2000; Westerdahl, & Westlund, 1998). Pestoff (2000), for example, calls attention to the ways in which the third sector provides an alternative means through which to structure labor. Based on an organizational commitment to non-hierarchical decision-making involving staff and parents, he argues that social enterprises, particularly cooperatives, provide a "clear alternative" to the deteriorating working conditions noted in other childcare auspices.

In exploring the ways in which cooperatives provide a unique organizational structure (as compared to for- and non-profit models), scholars have highlighted several distinguishing factors, to include: an almost exclusive current parent member board composition (exceptions would include past parents, for example), mandatory parental participation at yearly board meetings, and membership in the cooperative movement—a movement with internationally agreed upon principles and values such as social responsibility and democratic decision-making

(Hansmann, 1980; ICA, 2009; Koning, Noailly, & Visser, 2007; Leviten-Reid, 2010) (please see Table 1 below).

Table 1: Organizational & Structural Difference Among For-Profits, Non-Profits, and Coops

For-Profits	Non-Profits	Cooperatives ⁵
• Presence of owners	• Lack of owners	• Lack of owners
• Lack of a non-distributional constraint (i.e., surplus to shareholders or individuals)	• Presence of a non-distributional constraint (i.e., surplus reinvested into organization)	• Presence of a non-distributional constraint (i.e., surplus reinvested into organization)
• Board comprised of shareholders	• Board comprised of community members	• Board comprised of parent members
• Non-mandatory parental participation at annual meeting	• Non-mandatory parental participation at annual meeting	• Mandatory parental participation at annual meeting
• Lack of unifying organizational umbrella	• Lack of unifying organizational umbrella	• Member of the international cooperative movement

In attempting to explore the impact of these differences further, particularly in relation to labor conditions and consumer preference, a select few studies have been conducted (Coontz & Esper, 2003; Morris & Helburn, 2000; Leviten-Reid, 2010; Pestoff, 2000). Based on a quasi-random⁶ sample of social enterprises providing daycare services in Sweden, including 24 parent cooperatives, 16 voluntary organizations, and 17 worker cooperatives, Pestoff (2000) found that worker cooperatives received the highest rating on several work-related factors—most notably greater staff influence in decision making and improved wages and benefits. Also greater than two-thirds of workers in parent and nearly four-fifths of workers in worker-owned cooperatives stated “it was better working for a social enterprise” as compared to a municipal center” (p. 56). In contrast to previous experiences, current cooperative staff noted considerable improvements in their labor conditions, to include: “improved possibilities to influence their own work, taking responsibly, participating in decision-making, trying their own ideas, improved contacts with parents, greater work satisfaction, improved possibility for personal development, greater shared values with colleagues, greater possibilities to improve their own work environment, and improved contact with management” (p. 58).

⁵ It should be noted that within the European and Canadian (particularly, within Québec) contexts, there exist two forms of incorporation for cooperatives, namely those *with* and those *without* shares (Quarter, Sousa, Richmond & Carmichael, 2001). The latter, also known as non-profit cooperatives, do not have shareholders and often provide social services, such as childcare and housing, while the former constitute those cooperatives with member held shares. For the purposes of the current research, the original research team did not request that cooperative childcare centers designate whether they were incorporated with or without shares; rather, they simply reported whether or not they were a cooperative. Based on the literature, however, the assumption could be made that by virtue of the services being provided, the cooperatives studied herein are those *without* shares.

⁶ The author defines the sample as “quasi-random,” given that 7 worker-owned cooperates providing childcare services in one of the designated survey areas (Stockholm) were purposefully not included in the sample based on a request from a worker-cooperative expert suggesting that “this form [worker-owner] was so new that it risked being effect by our intrusion in Stockholm” (p. 68). The remaining 275 total social enterprises from six counties were contacted thereafter to determine eligibility and desire to participate, with a resulting final sample of 57 obtained via simple, random sample of those meeting inclusion criteria.

Within the United States, Morris and Helburn (2000) explored cooperatives in relation to other non-profits and for-profits within the Cost, Quality, and Child Outcomes in Child Care Centers study (Helburn, 1995). The researchers found that parent cooperatives were rated as most trustworthy by parents and received the highest average quality score, as compared with church operated, church affiliated, community agencies, private schools and college-affiliated, independent nonprofit, public agencies, and independent and chain for-profits. Also, based on data obtained from 294 surveys, 12 focus groups, and 9 meetings with low-income parents/families residing in rural California, Coontz and Esper (2003) report that parent cooperative daycare centers emerged as the preferred choice among parents based on several factors, to include: local control and, thereby, a vested interest in ensuring success; their ability to reflect local values and cultural preferences; and, the ability to enhance local employment opportunities.

And, more recently, Majee and Hoyt (2009, 2010) explored the ways in which the worker-owned cooperative model, in particular, generates trust, conceptually defined as social capital, between and among worker-owners and clients. Based on data obtained from a document review (e.g., fiscal reports, etc.), 37 in-depth interviews, and 14 surveys among staff, professionals, and clients affiliated with a rural, Wisconsin-based, home-care (with a demographic profile much like that found among childcare workers), worker-owned cooperative (CHS), the authors find that cooperatives promote the development and expansion of trust foundationally via an organizational commitment to cooperatives values (e.g., democratic governance, equality, solidarity). Building upon such a foundation, the authors find that CHS was then able to foster: (i) the promotion of participation and networking within the coop and larger community (e.g., regular meetings, presenting at local conferences), which was found to foster increased self-confidence; (ii) ownership of the organization, which facilitated greater empowerment and engagement of worker-owners in decision-making; and, (iii) the promotion of open communication via cooperative newsletters, involvement in task committees, and mentorship programs (2010). The development of trust was also found to expand beyond worker-members to include clients as well, via the active participation of clients in the selection of their provider and in the planning of and participation in cooperative social events. And, although based on a small exploratory sample, the authors conclude by suggesting that: “CHS shows that cooperative enterprises can successfully operate locally owned people-centered businesses that create sustainable jobs, provide needed services, and foster trust among cooperative members and within the local community” (2009, p. 459).

Although research concerning the third sector in general, and the cooperative model more specifically, remains limited (due to, for example, limited sample sizes), the aforementioned findings reinforce the need to explore the potential of this model to enhance labor conditions and, potentially, respond to consumer childcare preferences. As such, the current research shall make use of feminist theories of care (outlined further in Chapter 2) to explore the ways in which caring labor is “valued” by analyzing potential differences among the labor conditions of for-profit, non-profit, and cooperative childcare centers.

SECTION 3: THE COOPERATIVE MODEL: DEFINITION, HISTORY & SIGNIFICANCE

Given the centrality of the cooperative model to the current research, a definition of cooperatives (to include their underlying values and principals), a brief historical sketch of cooperatives, and the significance of this model in relation to assets, revenues, wages, and employment within the United States are first presented.

3.1. Cooperative definition, values & principals

Although there exists no universally accepted definition of a cooperative, many organizations (e.g., United Nations, International Labor Organization, National Cooperative Business Alliance) have adopted that which is provided by International Cooperative Alliance, an organization founded in 1895 and currently serving 237 cooperative member organizations in 89 countries worldwide:

“An autonomous association of persons united voluntarily to meet their common economic, social and cultural needs, and aspirations through a jointly owned and democratically controlled enterprise” (ICA, 1955).

The ICA (2009) further delineates several underlying, guiding cooperative values to include: “self-help, self-responsibility, democracy, equality, equity, solidarity, honesty, openness, social responsibility and caring for others.” And, in order to, as they say—“put their values into action”—the ICA endorses several *principles* to guide the operation of cooperatives (ICA, 2009). Originating from the original cooperative principles prepared in 1844 by Rochdale Society of Equitable Pioneers in England (please see Appendix F for a complete list of the Rochdale Principles) (Birchall, 1998), the following seven principles are offered by the ICA (2009) (outlined in greater detail in Appendix G):

1: Voluntary and Open Membership
2: Democratic Member Control
3: Member Economic Participation
4: Autonomy and Independence
5: Education, Training and Information
6: Co-operation among Co-operatives
7: Concern for Community

Voluntary and open membership underscores the importance of ensuring that cooperatives allow individuals to become members (and discontinue membership) regardless of their race, ethnicity, gender, political, social, or religious affiliations. *Democratic member-control* most directly translates into equal voting rights for all members—one person, one vote (regardless of proportional investment). Several cooperative laws have, however, been enacted in several U.S. states and internationally to allow for proportional voting. In these cases, Zeuli & Cropp (2009) suggest that voting rights are based on the overall “volume of business the member transacted the previous year with the cooperative” (p. 2). To preserve the democratic principle within these instances, there is most often a limit placed on the total number of votes a single member can cast. *Member economic participation* involves the pooling of resources based on equal contributions by members towards capital development. This, in turn, reinforces collective ownership and democratic control. *Autonomy and independence* also emphasize the

importance of member-control. Although many cooperatives operate completely independently, there are those that do engage in collaborative activities with the government or other organizations. In the latter case, the maintenance of democratic control is central. *Education* involves a commitment to not only training cooperative members but also local community (particularly youth) in order to more effectively develop cooperatives and promote their benefits. Finally, *concern for community* emphasizes sustainable development, such as consideration of environmental impacts, and *co-operation* highlights the importance of collaborating with other cooperatives, locally, nationally, and internationally to effectively strengthen the individual and collective economic and social potential of cooperatives.

3.2. Origins of the cooperative movement

Traces of cooperative forms, particularly in agricultural sectors in which land was collectively cultivated, can be traced to ancient times in which rural communities often engaged in communal harvesting, crop sharing, and cattle lending. Although this form continued to expand during the Middle Ages (Holyoake, 1908), it was not until the early 19th century that the movement became truly galvanized. As Dickstein (1991) notes, cooperatives have—and to a great extent continue to be—developed as a response to socio-economic forces, to include: “economic depression, unemployment, changes in the economic system and industrial relations, technological change and rationalization of work, and deep social and cultural unrest” (p. 18). It was the transition away from cottage industries and home-based production towards the factory as a primary means of production during the Industrial Revolution that engendered these very forces (Zeuli & Cropp, 2004). As noted by Holyoake (1908):

“The rise of machinery was the circumstance that filled the working class with despair...The introduction of machinery for years lowered wages, and pushed the mass of the workmen with increased force against the walls of the workhouse ” (Holyoake, 1908, p. 11-12).

3.3. Theoretical influences

Several classical social theorists and reformers have supported the implementation of cooperatives, in various forms, to address the noted effects of industrialization and facilitate social transformation premised on greater equality and justice. The means with which said transformation would occur have, however, often been a point of departure.

For example, Proudhon, considered one of the founding theorists of anarchism, argues that the increasing division of labor renders the actual producer—the laborer—as “subordinated, exploited” and “resulting in a “permanent condition” defined by obedience and poverty” (Proudhon, 1923, p. 216). As an alternative to this unfavorable condition, he advocated for the development of “worker associations” or cooperatives in which the laborer “resume[s] his dignity as a man and citizen, ...may aspire to comfort, ...forms a part of the producing organization, of which he was before but the slave” (p. 216). He, as opposed to Marx, believed that such associations and/or cooperatives would facilitate a social revolution without the need to nationalize industry, possibly via violent action (Proudhon, 1876).

Central to this transition was the idea that laborers would control the means of production (as opposed to capitalists or the State), which provided the foundation for his economic and social theory of mutualism (Proudhon, 1923). He proposed that self-employed artisans, cooperatives, and worker associations would collaborate to exchange goods in the market. Recognizing the need for capital among the laboring classes, the creation of mutual banks or credit unions to provide loans to producers with very low interest rates was central to the theory of mutualism. This would, in fact, later inform the development of “labour notes,” advocated by one of the early pioneers of cooperatives discussed below.

Similar to Proudhon, Marx and Engels believed that the division of labor, particularly the “commodification of labor,” that would come to define capitalism brought about great suffering and injustice among the laboring classes. As noted in the *Manifesto of the Communist Party* (Tucker, 1978): “...the modern working class, developed a class of labourers, who live only so long as they find work, and who find work only so long as their labour increases capital.” (p. 479). Diverging, however, from Proudhon (and the anarchists more generally), Marx advocated the *seizure* of state power to bring about social transformation, as opposed to *dissolution* of state power entirely. According to Marx, this transformation from the current capitalist state would likely involve a transitional period—referred to as the “dictatorship of the proletariat”—in which the working class would control the means of production *and* political/state rule (Marx, 2010, p. 250). Also contrary to Proudhon’s belief in an entirely non-violent transformation, Marx suggested that “force” *may* be needed (particularly in less democratized nations) to engender an authentic social change (Tucker, 1978).

Although it is often suggested that Marx was against the use of cooperatives, a more systematic read of his works suggest a more nuanced understanding of their potential role in social transformation. Jossa (2005) argues that Marx conceived of cooperatives as useful during the “transitional period,” such that during this time workers would become “their own capitalists” (p. 12)—by individually and collectively controlling the means of production. As evidenced in his critique of the *Gotha Program*, a proposal by some within the German Social Democratic Movement in the late 1800s calling for the State to subsidize worker cooperatives, Marx did, however, caution against State involvement in cooperatives, as doing so might become a revolutionary obstacle (Marx, 2010).

Opposed to the social revolution espoused, though via varying means, by both anarchists and Marxists, “reformists” or “revisionists,” believe that gradual, democratic social change will bring about the transformation needed to improve social conditions. Contrary to both previous schools of thought, reformists do not call for the (violent or not) overthrow of capitalism, per say, but rather a transformation of the system itself. Although reformists support the use of cooperatives to aid in this gradual process of change, Bernstein (1911)—one of the original advocates of reformism—cautions against a belief in the power of cooperatives to engender social “utopias.” He does suggest, however, that they are aptly positioned (if sufficiently financed) to facilitate improvements in the social order—particularly within the “domain of public service” (p. 124).

3.4. Early pioneers

Although proposals for cooperative communities were being presented as early as 1696 by John Bellers in England (Holyoake, 1908), it wasn't until the work of Charles Fourier in France and Robert Owen and William King in England that cooperatives came to resemble their current form. Charles Fourier (1772-1837) believed that the development of communities (so called, *phalanxes*), in which residents collectively farmed and engaged in small scale industry, would provide the more effective means of combating the competition inherent in capitalism while also "providing self-employment opportunities and other conditions that would provide universal happiness" (Zeuli & Cropp, 2004, p. 6). Although Fourier was unable to garner the capital (from philanthropists) needed to establish any phalanxes prior to his death, several were developed in France, within the United States in the late 1840s, and later influenced the development of kibbutzim in Israel (Zeuli & Cropp, 2004).

Robert Owen (1771-1858), a wealthy industrialist also believed that cooperative communities could aid in the alleviation of unemployment, poverty, and suffering experienced by the working class following the industrial revolution, thereby providing an alternative to "private capitalism and competition" (Zeuli & Cropp, 2004, p. 6). His initial experiences with these practices occurred in Glasgow Scotland, following his purchase of a considerable portion of shares within the New Lanark Mills in 1799. As the largest cotton spinning enterprise in Britain at this time, the Mills employed approximately 2,000 individuals, to include 500 child laborers—former residents of the local poor houses. Immediately following his appointment as manager of the Mills, Owen began to instate several social reforms, to include: improved hygiene standards, the prohibition of child labor among those younger than 10 years of age, increased break time, and the provision of meals and a "modest" education to the children (Morton, 1962).

Grounded in his belief that the environment in which one resides directly shapes one's behavior, Owen championed the promotion of education as a means of engendering "good moral character" and promoting "working-class competence and a co-operative model of social and economic well-being" (Holyoake, 1908, p. 34-5). These ideals were delineated in his 1813 piece entitled: *Essays on the Principle of the Formation of the Human Character* (Harrison, 1969). In this same year, many of the mill's original partners—currently disgruntled by Owen's "social investments" of capital—were bought out by those sympathetic to Owen's desire to improve the worker conditions (to include Jeremy Bentham). The change in proprietorship allowed Owen to pursue his belief in the transformational possibilities of education by opening the "Institute for the Formation of Character" in 1816, which included nursery, infant, and adult educational opportunities within New Lanark (Harrison, 1969). In commenting on the effects of these policies within New Lanark, Owen states:

"For twenty-nine years we did without the necessity for magistrates or lawyers; with a single legal punishment; without any known poor rate; without intemperance or religious animosities. We reduced the hours of labour, well educated all the children from infancy, greatly improved the condition of the adults, diminished their daily labour, paid interest on capital, and cleared upwards of £300,000 of profit" (Holyoake, 1908, p. 34-5).

Based on the economic *and* social success of New Lanmark, Owen began to promote the creation of similar “townships.” In a report concerning the Poor Law submitted to the House of Commons in 1817, he proposed the development of almost entirely self-contained communities numbering between 500 and 3000 residents, which could be created by parishes, counties, and/or the state. Although largely agricultural, he suggested the inclusion of mechanized industry, educational systems, and the provision of various forms of employment for the benefit and well being of the entire community (Harvey, 1949). Although ultimately unsuccessful, Owen utilized capital obtained from philanthropic donations to develop several townships in Europe (Orbiston, Scotland; Ralahine, Ireland; and, Queenswood, England), and one in the United States in 1826 (New Harmony, Indiana) (Royle, 1998).

Following his departure from New Harmony in 1828, Owen returned to London. Shortly thereafter in 1832, he began a weekly periodical entitled *The Crisis*, through which he promoted the use of “labour notes” as a means of combating the exclusion of unemployed and low-income laborers from the market. These “notes” enabled individuals to exchange products at local “bazaars” for a particular quantity of “labour hours,” which could then be used in exchange for other needed commodities. The widespread interest among the laboring class led to the formation of the National Equitable Labour Exchange in 1832. Despite the initial fervor surrounding labour notes, their use quickly declined leading to the near abandonment of the Labor Exchange by 1834. Harvey (1949) argues their failure was due in large part because the “exchanges represented a too decided break with accustomed ways of carrying on the economic life” (p. 190). Despite these setbacks, Owen launched a journal—*The New Moral World*—in 1834, in which he continued to champion several social and cooperative reforms, to include: the promotion of unions, universal education, and the development of “townships” to combat the effects of industrial capitalism (Harrison, 1969).

Although not cited as often as Owen in the development of the cooperative movement, Dr. William King (1786-1865) played a major role in the development of coops. Based on his medical practice, he became increasingly concerned with improving the conditions of the poor. This interest spawned the development and personal finance of a magazine entitled “The Cooperator” (Zeuli & Cropp, 2004). Throughout the 28 total issues he discussed his thoughts regarding cooperative theory and practice. Unlike Fourier and Owen, whose models were based on philanthropic investments, King believed that cooperatives should be small, local entities developed with member capital. Some suggest that it was a combination of both Owen and King’s writing that inspired the development of the first consumer cooperatives in Rochdale England.

The founders of the Rochdale Society were textile weavers experiencing the social and economic strains of industrialization. Increasingly, they were unable to purchase the high cost, low quality food provided in the factory-owned stores. Having read publications by Owen and King, they launched their own store, funded by member contributions totaling two-pence per week (Holyoake, 1908). And, although the original store remained open for only two years, the founding members—the famed “original 28 equitable pioneers”—later went on to develop the now infamous cooperative store on Toad Lane in 1844 (Holyoake, 1908). Based on the success of the Rochdale Cooperative in being able to sell high quality low-cost provisions, assist in the purchase of homes for members, manufacture goods, and provide members with employment

(Holyoake, 1908; NCBA, 2005; Zeuli & Cropp, 2004) it became *the* cooperative model of the late 18th and early 19th centuries.

3.5. Cooperative history within the United States⁷

One of the earliest cooperatives developed within the U.S. as a response to the absence of any like service was ‘The Philadelphia Contributionship for the Insurance of Houses from Loss of Fire,’ an insurance company started by Benjamin Franklin and several colleagues in 1752. This was later followed by the development of dairy cooperatives in 1810 (Curl, 2009) and farmers’ marketing cooperatives for in the 1820s (Birchall, 1998), both of which reduced vulnerability, increased efficiency, and—thereby—fostered increased profit margins. One of the first cooperative stores began in 1825 and was located in New Harmony Indiana, which as mentioned earlier, was one of the communities inspired by Robert Owen (Curl, 2009).

Formal worker cooperatives began to emerge during the 1830s, in response to deteriorating worker conditions, with at least eighteen production cooperatives developed with the direct assistance of the National Trades’ Union (Curl, 2009). Following shortly thereafter, between 1845 and 1860, the first consumer cooperatives emerged in the Northeast under the auspices of the Working Men’s Protective Union (Curl, 2009). Also during this time (1851) the first healthcare cooperative was developed by French immigrants in San Francisco to provide a hospital and medical services on a pre-paid plan (Voorhis, 1961).

The relationship noted between unions and cooperatives in the early 1800s continued to develop during the late 1800s. Founded in 1867 by a USDA employee named Oliver Kelly, the National Grange of the Patrons of Husbandry (Grange) was concerned with rebuilding strained relationships between farmers of the north and south following the civil war (Curl, 2009). Due to increasingly difficult economic times, the Grange focused on improving farm conditions and believed that the establishment of hundreds of farming cooperatives (particularly marketing and purchasing) was an effective strategy towards this end. They were also instrumental in the

⁷ Although there is a general consensus regarding the origins and general trajectory of the cooperative movement, it is important to note that differences do exist. That is, various groups (e.g., communities of color) have experienced unique challenges and opportunities that have shaped their respective historical foundations and current level of use and prosperity. For example, Jessica Gordon Nembhard (2004) outlines the ways in which the cooperative structure has been utilized—though not without significant barriers, to include racism—to engender economic empowerment and community (re)development among African American communities. She details the historical emphasis on cooperatives as a mechanism through which to uplift the African American community noted by scholars such as William E.B. Du Bois, Ella Jo Baker, and Marcus Garvey, while also situating their success (or lack thereof) within the larger socio-political context. Based on a review of several cooperatives, she highlights their ability to have reduced costs while increasing access to quality goods and services, increased the income of workers, and engendered economic stability and empowerment among African American communities. She also underscores that fact that although these cooperatives have faced non-unique challenges such as lack of resources and management experience, they have also struggled with “sabotage (rents increased to exorbitant rates, insurance coverage withdrawn or not affordable), unfair competition, and other deliberate subversions” (p. 319). As such, future research should avoid falsely universalizing cooperative efforts by undertaking a thoughtful examination of the unique socio-political context—both historically and contemporarily—of those cooperatives with which research is being conducted.

development of “cooperative banking in the United States, opening the Grangers Bank of California in 1874, which within a year had two million dollars on deposit” (Curl, 2009, p.77).

In 1869, the Noble Order of the Knights of Labor (KOL) was created in Philadelphia, a guiding principle of which was cooperation. Spanning the years of 1886 through 1888, the KOL assisted in the development of approximately 200 industrial cooperatives (Curl, 2009). In addition to the efforts of the Grange and KOL, there were more than 5,000 American members of the International Workingman’s Association (IWA) union by 1871, a primary objective of which was the creation of worker cooperatives to improve labor conditions. And, founded in 1874, the Farmers Alliance union quickly spread across the country by organizing purchasing and marketing cooperatives. In 1886, a group of African-American sharecroppers and tenant farmers in Texas established the Colored Farmers Alliance, which at its peak was working to establish cooperatives amongst its estimated 1.25 million members (Curl, 2009).

Although the previous 40 years had witnessed a burgeoning of cooperatives across the United States, particularly under the auspices of labor unions, this trend would quickly slow following the passage of the Sherman Anti-Trust Act of 1890. Although, the Act made no mention of cooperatives and was intended to outlaw monopolies within the U.S. (particularly the railroad and oil companies) by “making “illegal every contract or conspiracy that restrained trade or commerce,” it effectively made interstate trade between cooperatives illegal (Zeuli & Cropp, 2004, p. 17). Although this Act significantly curtailed cooperative trade and development, the movement continued.

Between the years of 1895 and 1899, the Cooperative Union of America was formed with the aim of creating a “federation of consumer cooperative stores” (Curl, 2009, p. 122). And, in 1909, legislation was drafted within the United States (Massachusetts) that would provide the legal foundation from which credit unions would develop. Within the cooperative utilities sector, 1912 saw the development of affordable electricity, telephone, and water services throughout much of the rural U.S.

In response to continued lobbying by farmers throughout the U.S., the federal government passed the Clayton Act in 1914, which exempted “agricultural, or horticultural organizations, instituted for the purposes of mutual help, and not having capital stock or conducted for a profit from the Sherman Act” (Shaffer, 1999, p. 437-439). In the same year, the Cooperative Marketing Act of 1914 was passed, which “broadened and formalized the USDA’s support and encouragement of farmer cooperatives” (Zeuli & Cropp, 2004, p. 18). In order to further support this development, the Farm Loan Act was passed just two years later in 1916, “which created the Federal Land Bank for the purpose of providing loans to purchase land” (Zeuli & Cropp, 2004, p. 18). And, in 1919 the American Farm Bureau was created, which has and continues to be instrumental in the development of farming cooperatives.

Although the Clayton Act had provided some relief for cooperatives from the Anti-Trust Act, it was not until passage of the Capper-Volstead Act of 1922—sometimes called the ‘Cooperative Bill of Rights’—that farmers gained “specific legal protection from prosecution under the antitrust laws, and received the rights of collective bargaining and marketing. Also in direct support of farming cooperatives, the Agricultural Marketing Act of 1929 aimed to “promote the

effective merchandising of agricultural commodities in interstate and foreign commerce...by promoting the establishment and financing of a farm marketing system of producer-owned and producer-controlled cooperative associations” (Knapp, 1969, p. 120). Towards this end, the federal government provided \$500 million towards the development of cooperative associations within the United States (Curl, 2009; Zeuli & Cropp, 2004).

Following the economic collapse of the 1930s, the self-help cooperative movement quickly spread across the states and encompassed over 300,000 members by 1932. Stressing the tenants of aid and barter, these “cooperatives produced a variety of goods for trade and self-use, and organized exchanges between laborers and farmers, in which people would work for a share of the produce (Curl, 2009, p. 165).

Following the great depression, Roosevelt enacted several pieces of New Deal legislation that had a direct impact on cooperatives. The Farm Credit Act of 1933 established Production Credit Associations and “thirteen Banks for Cooperatives (now merged into one: CoBank) to provide credit to cooperatives and farmers who were organizing cooperatives” (Zeuli & Cropp, 2004, p. 18). The Farm Security Administration, established in 1935, was also instrumental in the development of approximately “25,000 cooperatives among 4 million low-income farmers,” by providing start-up loans (Curl, 2009, p. 175). This legislation directly influenced the continued expansion of farming cooperatives and credit unions (8,645 in 1945 to 24,000 in 1969) prior to and following World War II (Curl, 2009). And, in 1947, the Group Health Cooperative of Puget Sound Washington began providing medical services based on flat rate monthly membership dues (NCBA, 2004; Zeuli & Cropp, 2004).

This period is also distinguished by the rise of parent cooperatives, as early as 1916 in Chicago. Based on her pioneering efforts in launching both the first childcare cooperative in Chicago (1916) as well as the oldest, continually operating childcare cooperative in the United States (Children’s Community Center, Berkeley CA, Established 1927), Katherine Whiteside Taylor suggests (1954) that the childcare cooperatives served not only to promote social education but also provided much sought-after child-rearing guidance and communal support among parents (most often mothers). This was particularly the case, she adds, among lower-and middle-income families who earned too much to qualify for subsidized childcare and yet too little to purchase private childcare/preschool services. And, as a direct response to women increasingly entering the paid labor force, the development of childcare cooperatives burgeoned further during the 1960s. At this time (and today), families saw these cooperatives as an effective model with which to have increased involvement in decisions surrounding the care of their children *as well as* flexibility in services (Deller et al., 2009; NCBA, 2005).

Housing co-ops, particularly those developed for lower-income individuals and families, also began to flourish in the late 60s and 70s (Curl, 2009, p. 239). And, in 1978, the Industrial Cooperative Association (ICA) was formed in Boston to promote the development of worker-owned cooperatives. With the assistance of the ICA, “workers took over the shutdown Colonial Press in Clinton, Massachusetts, and transformed it into the first true large industrial cooperative formed in the United States in twenty years” (Curl, 2009, p. 234). Recognizing the ability of coops to promote ownership, increase market participation, improve the quality of goods, and “build bridges between producers and consumers,” Congress enacted the National Consumer

Cooperative Bank in the same year in order to “...make available necessary financial and technical assistance to cooperative self-help endeavors as a means of strengthening the Nation's economy (U.S. House of Representatives, 1978). The Bank particularly focused its supports towards consumer and housing coops, indicating that 60% and 30% of all loans would be allocated respectively, leaving 10% to aid in the development and support of worker/producer cooperatives. Within this allocation structure, the Bank also stated that 35% of all loans would “go to low-income cooperative or cooperatives primarily serving low-income people” (Curl, 2009, p. 240).

Since the 1990s, the main emphasis amongst worker-coops in particular has been one of *collaboration*. Throughout the Northeast, Northwest, and within Northern California, cooperatives are joining together not only for the “traditional” aims of purchasing or marketing but also to share ideas and develop “best practices.” For example, the Network of Bay Area Worker Cooperatives (NOBAWC), a group of approximately 30 co-ops, was established in the San Francisco Bay Area in 1994. The stated mission of this group is to promote information and resource sharing, develop new worker co-ops, and promote community awareness and support of worker co-ops (NOBAWC, 2009). Similarly, the Valley Alliance of Worker Cooperatives was established in 2005 to “facilitate the growth and development of worker-owned cooperatives and a local sustainable economy in the Pioneer Valley of Western Massachusetts and Southern Vermont, with the goal of focusing on low-income and minority communities” (Curl, 2009, p. 249).

Emerging formally in Italy in 1991, the past 20 years has also given rise to the “solidarity” or “multi-stakeholder” cooperative movement. As defined by Margaret Lund (2010) this model: “formally allows for governance by representatives of two or more ‘stakeholder’ groups within the same organization, including consumers, producers, workers, volunteers or general community supporters” (Lund, 2010, p. 1), the purpose of which is to enhance individual and collective socio-economic well-being. Although concerns exist regarding the viability of these organizations (e.g., burdensome decision-making practices, conflict resulting from individual stakeholder self-interests—See Tomas, 2004), Catherine Leviten-Reid and Brett Fairbairn (2011) find that much of these concerns may be empirically unfounded. Based on their review of existing literature—to include several case studies conducted in Québec, which boasts the largest concentration of this cooperative form globally—they note that: “Different groups of actors are able to pursue shared objectives of the organization rather than exclusively their own needs, and effective decision-making processes can be established that allow for the input of different actors and consensus-building among their representatives at the board table” (p. 32).

The 21st century has also brought with it renewed legislative interest in cooperatives when, on June 19, 2013, Congressman Fattah of Pennsylvania introduced the *Creating Jobs Through Cooperatives Act* (H.R. 2437) introduced H.R. 3677. The aim of this act is to establish a national program to create jobs and increase economic development in underserved areas by promoting cooperative development. With funding currently proposed at \$25 million/year to be dispersed through a National Cooperative Development Center, passage of this act would provide the economic means and logistical support necessary to propel the development and further research of cooperatives. Growing (re)recognition of this model has also been echoed on the international scene. The United Nations General Assembly (2009) declared, for example, 2012 as the

“International Year of Cooperatives,” based on their ability to impact “poverty reduction, employment generation, and social integration.”

And the newly introduced *Creating Jobs Through Cooperatives Act of 2013* (H.R. 2437) will provide further support to aid in the development and expansion of cooperatives. In particular, this legislation would foster the establishment of a program within the U.S. Department of Housing and Urban Development to provide funding (e.g., revolving loan fund to provide start-up capital and support), training, and on-going support of cooperatives.

3.6. Cooperative significance

Growing interest of cooperatives both internationally and domestically begs the question: if significant resources (e.g., economic, logistical, etc.) are going to be allocated to support the development and growth of this model, what is the likely return on investment? That is: what is the track record of this model within the United States in relation to income, assets, wages, and jobs? During 2009, the University of Wisconsin’s Center for Cooperatives underwent an unprecedented survey to explore this very question (Deller, et al., 2009). Extrapolating from their sample of 16,151 cooperatives surveyed, the authors estimate that “cooperatives account for nearly \$654 billion in revenue, more than 2 million jobs, and \$75 billion in wages and benefits paid” (Deller, et al., 2009). Within the childcare sector in particular, the study estimates a total of 1,096 cooperative childcare firms currently operating within the U.S., providing over 8,000 jobs, nearly \$1 million in wages, and collectively accounting for more than \$45 million in assets (Deller et al., 2009).

CHAPTER 2: THEORETICAL FRAMEWORK

Caregiving within the United States (and elsewhere) continues to transform at an ever-increasing pace. Traditionally delivered within domestic circles, most often by women without economic recompense, two demographic shifts have considerably transformed the caregiving landscape, namely: the transition of women, either by desire or necessity, into the paid labor force and a rising aging population. The resulting increase in demand for and decrease in the supply of caring labor has created a so-called “care deficit” (Hochschild, 2003). Such a deficit raises questions regarding not only the adequacy of caring services in relation to access, cost, and quality, but also the interrelated conditions under which this labor is conceived of and delivered increasingly within the market. That is: if those [women] who previously provided this care are entering the paid labor market, to whom—or rather on whom—is this labor being transferred or displaced? *And*, on what terms?

A likely neoclassical economic response: individuals [primarily women] will assume this labor and do so for low wages based on the minimal amount of skill required (i.e., theory of human capital investment—see Becker, 1971) and/or the associated intrinsic reward/non-pecuniary compensation in so doing (i.e., theory of compensating differentials—see Smith, 1979). The response from others, most notably critical feminist scholars: women, most often poor, immigrant, women of color lacking economic, social, and political power are meagerly compensated and deprived adequate health and social benefits by virtue of this labor being fundamentally devalued by our society (e.g., England, 2005).

Central to the scholarship of the latter group is a critique of liberal individualism and its inability to respond to care needs in a socially equitable manner (e.g., Held, 2002; Glenn, 2000; Tronto, 1993; Young, 1997). It is argued that by emphasizing an autonomous, independent individual, liberal individualism de-values care by “obscuring the actual interdependence among people and the need for care that even ‘independent’ people have” (Glenn, 2000, p. 85). As an alternative, feminist scholars offer an ethics of care, stressing social connectedness, interdependence, and the universality of care needs (e.g., Tronto, 1993). By critically examining our conceptualizations and configurations of care and caring labor in this manner, concerns regarding the marginalization and exploitation of care workers—many of whom reside on the intersecting and socially volatile fault lines of gender, race, and class—become increasingly disconcerting (e.g., Glenn, 2000; Held, 2002).

It is the aim of this chapter, then, to present: (i) a survey of care definitions; (ii) a brief historical tracing of feminist theories of care and the ways in which caring labor had been theorized; (iii) a contextualization of care theory within the childcare context; and, finally (iv) a summary of the ways in which feminist theories of care inform the current investigation of childcare labor.

SECTION 1: DEFINING CARE

Attempting to arrive at a comprehensive and uncontested definition of any concept is a challenging, if not impossible, task. Each reader will necessarily interrogate that which is offered

against the backdrop of her own scholarly and ideological knowledge and perspective. Notwithstanding this reality, it is theoretically and empirically necessary to offer one's conceptualization, as doing so provides the foundation from which to begin a more systematic investigation. The following section will, then, present a review of various definitions of care(ing), to include the identification of that which will frame the current research investigation.

Although few would disagree that care is, as suggested by Joan Tronto (1993), “a universal aspect of human life” (p. 110), defining what exactly constitutes care is a much more contested endeavor. Based on a review of care-related scholarship, particularly within sociology, Carol Thomas (1993, p. 651-3) has identified the following 7 dimensions on which scholars most often conceptualize care (please see Table 2 below):

Table 2: Thomas' (1993) 7 Definitional Dimensions of Caring

1.	The social identity of the carer	“wives,” “mothers,” “nurses,” “home helps”—with gender being a primary category for feminist research ⁸
2.	The social identity of the care recipient	group membership, often based on “dependency” [sic] status: “children,” “elders,” “disabled”
3.	The inter-personal relationships between the carer and the care recipient	defined in terms of ties or bonds signifying degrees of personal familiarity and obligation (e.g., family, friends, neighbors, “contingent” relationships between strangers)
4.	The nature of care	defined as “a feeling state (emotion, affection, love)—‘caring about someone’, and/or an activity state (work, tasks, labor)—‘caring for someone’
5.	The social domain within which the caring relationship is located	public and private or domestic domains
6.	The economic character of the care relationship	with or without economic recompense
7.	The institutional setting in which care is delivered	physical location of caring activities: “home” “adult day center” “childcare center”

The various combinations and permutations of these dimensions have significant implications regarding our understanding of care. That is, our response to the aforementioned “care deficit”—individually and socially—will take on ostensibly different forms if we understand caring to be, for example, the loving work of mothers caring for (their own) children within the home without economic recompense vs. the paid, “contingent” labor of childcare workers caring for (unrelated) children in community daycare centers. As such, let us turn towards a brief review of several definitions of care, paying close attention to the ways in which some of Thomas' dimensions are stressed while others omitted, what and/or whom may be silenced and rendered invisible, and the social implications thereof.

⁸ Although not specified by Thomas, I would add the social categories of race and class to this dimension. They will, in addition to gender, form the foundation of contemporary intersectional analyses to be discussed in a later section.

1.1. A Sampling of Care Definitions

There likely exist far more definitions of care than those presented; however, the following (please see Table 3 below) are often cited, reviewed, and/or critiqued within the literature⁹ and, as such, will provide the basis for the current exploration. As noted, most define care as a means through which to meet the needs of others—a seemingly intuitive starting point. Yet, when one begins to interrogate the ways in which we define who is or who is not in “need” of care, the conceptual waters become a bit turbid. Are those in need of care, as suggested by Nancy Folbre (2008) considered only in terms of their dependency status, for example “child,” “elder,” or “physically impaired”? Or, should the categorization of those in need be extended to include adult, able-bodied individuals who may be in need of, as suggested by Evelyn Nakano Glenn (2000), reassurance or sympathetic listening?

By conceiving of care needs in relation to dependency status alone, care is rendered the primary concern of those individuals satisfying the requirements of said group eligibility (or their guardians), for example: those 0-18, 65 and older, and/or assigned a mental or physical diagnosis or impairment. In so doing, care is no longer a “defining human element” (Tronto, 1993) or “species activity” (Fisher & Tronto, 1990), central to the wellbeing of all individuals but rather a concern for those situated (permanently or temporarily) within the social periphery. In so doing, a social distancing of sort potentially occurs in which meeting care needs becomes a problem for particular segments of society, as opposed to a collective challenge with which we all must grapple.

Table 3: Sample of Care Definitions

Author(s)	Definition
Bubeck (1995)	“Caring for is the meeting of the needs of one person by another person where face-to-face interaction between carer and cared for is a crucial element of the overall activity and where the need is of such nature that it cannot possibly be met by the person in need herself” (p. 129).
Folbre (2008)	“I define care services here as paid or unpaid efforts to meet the needs of dependents, including direct care work that involves personal connection and emotional attachment to care recipients” (p. 374).
Graham (1983)	“...in broad terms, it is a concept encompassing that range of human experiences which have to do with feeling concern for, and taking charge of, the well-being of others” (p. 13).
Noddings (2002)	(A,B) is a caring relation (or encounter) if and only if (i) A care for B – that is A’s consciousness is characterized by attention and motivational displacement—and (ii) A performs some act in accordance with (i), and (iii) B recognizes that A cares for B” (p. 19).
Cancian & Oliker (2000)	Our working definition of caregiving (which we will often refer to as caring) is feelings of affection and responsibility combined with actions that provide responsively for an individuals personal needs or well-being, in a face-to-face relationship. Caregiving includes physical care, such as bathing or feeding a person, as well as emotional care, such as tender touch, supportive talk, empathy, and affection. It also includes providing direct services such as driving someone to a store or adjusting the medications of a hospital patient. Actions such as a husband’s or government agency’s provision of the money that supports caregiving we define as support for caregiving but not as direct caregiving” (p. 2).

⁹ By “literature” I mean to specify that which emanates particularly from scholars of feminism, psychology, and/or sociology who have most directly and for several decades taken up the task of interrogating *care*—its conceptualization, limits, and social implications.

Hochschild (1995)	"...by the term 'care' I refer to an emotional bond, usually mutual, between the caregiver and cared-for, a bond in which the caregiver feels responsible for others' well-being and does mental, emotional, and physical work in the course of fulfilling that responsibility." (p. 333).
Parker (1981)	"On the one hand the word care is used to convey the idea of concern about people. It may find expression in a charitable donation in lobbying, in prayer or in feelings of anxiety, sadness or pleasure at what happens to others. On the other hand 'care' also describes the actual work of looking after those who, temporarily or permanently, cannot do so for themselves. It comprises such things as feeding, washing, lifting, cleaning up for the incontinent, protecting and comforting. It is the more active and face-to-face manifestations of care. To distinguish between these two usages I want to adopt the word tending for these latter activities..." (p. 17).
Fisher & Tronto (1990)	"...a species activity that includes everything that we do to maintain, continue, and repair our 'world' so that we can live in it as well as possible. That world includes our bodies, our selves, and our environment, all of which we seek to interweave in a complex, life-sustaining web." This activity includes the following four phases of care: caring about, taking care, care-giving, and care-receiving.
Glenn (2000)	"...usefulness of defining care as a practice that encompasses an ethic (caring about) and an activity (caring for). 'Caring about' engages both thought and feeling, including awareness and attentiveness, concern about feelings of responsibility for meeting another's needs. 'Caring for' refers to the varied activities of providing the needs or well-being of another person. These activities include physical care (e.g., bathing, feeding), emotional care (e.g., reassuring, sympathetic listening), and direct services (e.g., driving a person to the doctor, running errands)" (p. 86-7).

A second major point of departure involves the question of whether caring is understood, most often, as a physical (caring for) and/or emotional (caring about) undertaking. Roy Parker (1981) draws a clear distinction between the two, suggesting that the former—so termed “tending”—refers to the true work of caring, while the latter encompasses a more general concern for others that does not, necessarily, require a face-to-face exchange of caring services. For the purposes of analytic clarity, he suggests that an investigation of caring is, therefore, more appropriately delineated in terms of tending. Others suggest, however, that drawing a distinction between caring “for” and “about” actually misrepresents that actual process of caring (Abel & Nelson, 1990; Cancian & Olicker, 2000; Fisher & Tronto, 1990; Glenn, 2000; Noddings, 2002; Tronto, 1993; Tronto, 2006). As suggested by Emily Abel and Margaret Nelson (1990): “Caregiving is an activity encompassing both instrumental tasks and affective relations. Despite the classic Parsonian distinction between these two modes of behavior, caregivers are expected to provide love as well as labor, caring for, while caring about” (p. 4).

Interestingly, although Nell Noddings (1984) originally dismisses “caring about” as a “poor second cousin to caring [for],” in later work (2002) she suggests that doing so may have been nearsighted. She maintains that although one should remain cautious of an insular endorsement of caring about as it runs the risk of “brushing aside caring-for as too immediate, personal, parochial, or emotional to be widely effective,” this concept may actually provide the theoretical and political connections between caring and justice (p. 22). That is, by moving beyond the face-to-face provision of caring-for, caring-about asks us to assume a wider lens through which to question the ways in which social and political factors impact the configuration of caring labor and services.

Nodding's refinement of her original position was likely informed by the scholarship of Berenice Fisher and Joan Tronto (1990), which offers a conceptualization of care situated within the larger theoretical and moral domain of justice. At base, their delineation of care calls for the necessary inclusion of both "caring about" and "taking care" (caring-for) as primary steps in a 4-part caring process (see Table 2). The former involves: "recognizing the need for care in the first place," while the latter calls for the "assumption of responsibility for the caring work that needs to be done." The final two phases, care-taking and care-receiving are understood to encompass the "actual work of care" and the "response of the thing or person cared for" respectively (Tronto, 2006, p. 5-6).

In teasing out and refining the distinction between 'caring for' and caretaking, seemingly combined within other definitions, the authors have called attention to the ways in which assuming responsibility for and the actual work of caring may not necessarily coexist. That is, it is arguably the case that we—individuals, families, and society at large—have long presumed that individuals [mostly women] assume responsibility for and, as such, do the work of caring. However, Fisher and Tronto have asked us to recognize that these two processes need not be connected. The State can, for example, assume responsibility for meeting care needs by providing subsidized childcare, and yet be disconnected from the actual work of caring by ensuring community-based organizations, and the staff therein, do so. Or, a particular household may assume (economic) responsibility for the care of their children, yet be disconnected from the work of care by virtue of hiring a full-time, live-in nanny. As evidenced by these examples, the decoupling of responsibility from and the actual labor of care raises questions regarding (assumed) responsibility and the power relationships inherent within caring. For example, is the quality of care impacted when those assuming (particularly economic) responsibility for care are not the actual caregivers; what are the terms under which the work of care is contracted within the formal or informal sector; and, who—racially and otherwise socially configured—"assumes" this labor and under what conditions? It is precisely questions such as these that elevate the conceptualization of care from debates concerning labor or love, for example, to questions of justice.

Fisher and Tronto's (1990) definition also addresses a third area of contested ground, namely the inclusion (or not) of the care recipient. With few exceptions (e.g., Noddings, 2002; Fisher & Tronto, 1990) most scholars fail to consider directly the perspective of the recipient of care, a choice—consciously or as an effect of analytic oversight—that appears faulty for several reasons. What if, for example, the caretaker of a young infant understands "care" to constitute the distribution of food, changing of diapers, and the provision of supervision to avoid harm or injury. However, the infant's guardian understands care to encompass the aforementioned as well as engaging with the infant in kind, compassionate, and developmentally appropriate and stimulating ways, allowing time and space for free play, and providing opportunities for social interaction with other similarly aged children. Although the provider may, based on his definition, believe his services are caring, the infant's guardian may believe otherwise. From a definitional standpoint, what are we left with? Do these services constitute care? According to whom? And, is one position—caregiver or care recipient (direct or by proxy)—elevated above the other in determining the answers to these questions?

This example highlights one of the central tenets of feminist theories of care, that is care is an inherently relational endeavor (Abel & Nelson, 1990; Cancian & Oliker, 2000; Folbre, 2001; Fisher & Tronto, 1990; Tronto, 1993; 2006; Glenn, 2000). So as not to obfuscate a necessarily interdependent process, both the provider and the recipient of care should thus be included within its conceptualization. As such, Fisher & Tronto's (1990) inclusion of care-receiving, understood to occur within public or domestic spaces and with or without recompense to the care provider, provides an alternative, more analytically robust and empirically rigorous means through which to define and assess care.

Referring back to Thomas' seven dimensions, Fisher & Tronto's conceptualization of care (1990; Tronto, 1993) emerges as one of the very few, if not the only, that speaks to each dimension. In doing so, as noted throughout this brief review, the authors systematically highlight—or rather bring into the light—several aspects of caring that are heretofore relegated to the shadows of theoretical and empirical interrogations, namely: the universality of care needs; the need to consider—theoretically and in practice—both sides (caring for and about) of the inherently relational caring process; and, the ways in which the decoupling of responsibility from the actual labor of care raises questions regarding (assumed) responsibility and asymmetrical power relationships. Each of these refinements, additions, and theoretical expansions has individually and collectively engendered a more political rather than exclusively personal frame of analysis. And, it is precisely this frame—one in which questions of justice are subsumed—that will be used to theoretically inform the current research.

SECTION 2: A GENEALOGY of CARE THEORY

The point of departure for many care theorists is a foundational critique of liberalism; as such, let us begin with a brief discussion thereof. Following the dissolution of feudal and monarchical regimes during the late-seventeenth century, liberalism provided an alternative means through which to socio-politically delineate and regulate new forms of property, productive modes, and—more generally—citizenry. Although liberalism has taken on various historic and geographic formulations (e.g., Locke, Bentham, Rawls; France, United States), Wendy Brown (1995) suggests there exist several features that appear to transcend these differences.

Namely, she suggests that liberalism may generally be understood as a “tripartite social order,” derived from the (inter)constitutive spheres of state, economy (civil society) and family. Within this configuration, discussions of and disputes regarding the political are bound within the domain of the state, the primary task of which is to ensure the safety of its citizenry from “foreign” threat while preserving “domestic” rights and liberties. The delimitation of civil society is based on notions of civil equality, understood as the subjection of citizens to the same rule of law: despite the ways in which “differences in our circumstances, social markings, and locations in (unavowed) relations of social power” may obfuscate this belief (Brown, 1995, p. 146). And finally, the individual and the family constitute the defined unit of political analysis, unlike—for example—the “...state, polis, class or other site of collective identity” (p. 146). Following then, individuals are understood to be the origins of power, as opposed to (one of) its effects, and the pursuit of “the good” is “presumed to be individually discerned and pursued, neither determined nor enforced by political institutions” (p. 146).

Throughout this schematic, Brown gestures, implicitly and explicitly so, towards that which defines the fundamental element that has and continues to be contested by many feminist scholars, particularly those concerned with caring: the notion that (liberal) society is constitutive of autonomous, self-made, rational individuals (e.g., Noddings, 2002; Tronto, 1993). Based on a liberal socio-political frame, how then do we—individually and collectively—understand, and thereby respond, to care needs? If members of a liberal polity are self-sufficient and autonomous, where do children, elders, and those temporarily or permanently in need—more generally—reside? Are they accorded a status somewhat (or possibly entirely) less than “citizen” and thus relegated to the social periphery? Or, is the issue of “need” fundamentally outside the domain of the liberal (state) and assigned, thereby, to domestic spaces in which women are most often situated—by choice, hire, or otherwise? Does the work of care then constitute—by innate virtue—the “work of women,” or is it an effect of unequal configurations of power inherent within a patriarchal liberal state (Brown, 1995)?

2.1. Formative Beginnings

Questioning the elements and social implications of liberal individualism in this manner has been the work of care theorists for several decades, beginning for most with that of Nancy Chodorow and Carol Gilligan. Based on a psychoanalytic analysis of childrearing, Nancy Chodorow (1978) argues that children develop asymmetrical relational capacities by virtue of being raised by women. That is, boys develop a need to differentiate from their mothers, while girls define themselves in relation to others (p. 169). She argues, thus, that: “Masculine personality comes to be defined more in terms of denial of relation and connection (and denial of femininity), whereas feminine personality comes to include a fundamental definition of self in relationship” (p. 169).

Informed by Chodorow’s work, Carol Gilligan later explored gendered differences in moral reasoning within *In A Difference Voice* (1982). Based on an analysis of responses to a series of hypothetical moral scenarios/dilemmas, she found that women—as opposed to the vast majority of boys and men—tended to define themselves “...in a context of human relationship” and ultimately judged themselves based on their capacity to care (p. 8). These findings directly questioned existing scholarship concerning moral reasoning—particularly that of Gilligan’s mentor, Lawrence Kohlberg. Kohlberg’s cross-cultural research had suggested a six-stage model (via three distinct phases) of moral development, in which individuals move from “an egocentric understanding of fairness based on individual needs,” to one based on “shared conventions of society,” and finally to that which is premised on “equality and reciprocity” (Robinson, 1999). Gilligan’s research suggested that although women did not appear to “progress” according to Kohlberg’s stages, this did not imply a lack, distorted, or failed development of moral reasoning. Rather women possessed a unique moral orientation that was equally valuable.

Although Gilligan’s research precipitated a more concerted consideration of women’s experiences, feelings, and orientations within psychological and philosophical discourse writ large, it has since been critiqued by several scholars for obfuscating the social construction of gender and asymmetrical power relations between the sexes (e.g., Brown, 1995), engendering biological determinism (e.g., Moody-Adams, 1991), and reifying a particular conception of “femininity” (e.g., Deveaux, 1995). Notwithstanding these critiques, her research cursorily outlined two perspectives to moral/ethical reasoning: one in which rationality is central to the

attainment of justice, and the other which elevates caring as a means through which needs are met. The latter's emphasis on relationality and inter-dependence, particularly as they juxtapose the former's liberal notions of independence and autonomy, were and continue to remain central to the scholarship of care theorists (e.g., Glenn, 1992, 2000; Held, 2006; Sevenhuijsen, Bozalek, Gouws, & Minnarr-McDonald, 2003; Tronto, 1993).

2.2. *Expanding the Scope*

Building upon a conception of care as a relational process, Tronto (1993) further extends the care discourse beyond questions of nurturance alone to those of moral and ethical consequence. Towards this end, she outlines an ethics of care premised on the following four ethical elements: attentiveness, responsibility, competence, and responsiveness. Attentiveness refers to increasing one's awareness of care needs, such that ignoring said need would be regarded as a "form of moral evil" (Tronto, 1993, p. 127). Taking responsibility involves responding to said need "out of willingness rather than duty or principle" (Hamington, 2004, p. 3), while competence calls for us to move beyond an intention (i.e., recognizing and even accepting responsibility for care needs) to the actual provision of care. Finally, in highlighting the asymmetries of power that often constitute the process of caring, responsiveness includes a consideration of the response "of the care recipient to the care."

By framing care as such—as a process of care that is relationally and morally configured—Tronto calls for a critical interrogation of the quality and ethics of care. That is, care is no longer bound to notions of individual female value (Gilligan, 1982) or virtue (Card, 1991), for example, but is rather elevated to those concerning justice and the political more generally. Re-orienting the discourse and analysis in this manner is precisely the process through which questions concerning the distribution of "caring (who gets taken care of)," "responsibilities to engage in caring labor (who gives care)," and "social resources and protections available to caregivers and those needing care (on what terms of burden and reward people give and receive care) become salient and, thus, the work of contemporary scholars of care (Urban Walker, 2006, p. 149). In particular, intersectional analyses concerned with the interrogation of multiple, inter-locking modes of oppression; the displacement of caring labor via global configurations of capital and labor; and, theories concerning the devaluation (despite the ways in which it constitutes a public good) and commodification of care¹⁰ have become central, non-mutually exclusive, themes

¹⁰ Please note that this scholarship—particularly the ways in which it is framed within this work—is pulling largely from the conceptual work of Paula England (2005), in which she outlines five emergent frameworks of care: devaluation, public good, prisoner of love, commodification of care and emotion, and love and money. Only three of these frameworks—in title—are reviewed herein due to the conceptual and empirical similarity among several of them, namely between the devaluation and prisoner of love frameworks and the commodification of care/emotion and love and money frameworks. As is noted within the devaluation section, many cite the theory of compensating differentials in explaining the prisoner of love framework, which suggests that intrinsic motivations to care explain or provide the justification for poor compensation. Given that this theory is reviewed in detail within devaluation, further discussion is not entertained specifically within the prisoner of love context. Also, with regard to the commodification of emotion framework, the rationale supporting the "love and money" framework is necessarily discussed. That is, the love and money frame suggests there need not be a "dichotomous view in which markets are seen as antithetical to true care, which is found within families, communities, non-profits, etc." (England, 2005, p. 395). Instead it calls into question the *mechanisms* within each sphere that may cause problems: inadequate care to meet existing needs, work conditions that limit the expression of care, and low worker compensation (again, a link here to the devaluation framework). Given the connection of this argument to commodification, in which the

among today's care theorists.

2.3. *Current Trends*

Feminist scholars have long emphasized the unequal, gendered division of labor within domestic spaces; however, many contemporary scholars argue that such an insular focus on gender tends to obfuscate the impact of other socially oppressive domains—race, class, sexual preference, for example—and falsely universalizes the experience of women (Collins, 1991; hooks, 1984; Glenn 1985). Attempting to explore these “interconnected” domains has become the foundation of intersectional analyses, which submits that women do not universally “share the same lot” (hooks, 1985), such that the liberation of some women from the oppressive ranks of domesticity has led to the (some would argue, necessary) encumbrance of others (Brown, 1985; Duffy, 2005, 2007; Glenn, 1985; Harrington, 1999; Hondagneu-Sotelo 2000; Macklin, 1994; Nakano Glenn 1992; Tronto 2002). As posed by Parker (1981): one must ask: “who is left to perform the tasks of caring...and what implications [does that have] for the social and economic distribution – or re-distribution – of opportunities, status and freedoms” (p. 31)?

In questioning the displacement of caring labor in this way, implications concerning citizenship and immigration also arise. As presented by Arlie Hochschild (2003), the extraction of resources from the Global South to that of the Global North has historically transformed to include not only material but also human resources, in which “...love and care [have] become the ‘new gold’” (p. 194). Concerns regarding a “care drain” include the ways in which the children, families, and communities of migrating women are deprived care providers—and to what effects; the social conditions under which these women “consent” to labor within the global north (see England, 1995 concerning the “prisoner of love” thesis); and the ways in which the readily available, “low-cost” [poorly compensated] care labor distorts the extent of care needs with the U.S. (as well as other states within the global north) social policy arena (Folbre, 2006, 2008).

Devaluation of Care. Both of the aforementioned themes speak to and complement scholarship attempting to discern the mechanisms underlying the contemporary configurations of caring labor. Towards this end, several scholars have explored the devaluation of care, suggesting that this labor is poorly compensated—via wages and state support—due to its social and cultural association with women and mothering more generally (Bubeck, 1995; Cancian & Oliker, 2000; England, 2005; England & Folbre, 1999; England, Budig, & Folbre, 2002; Hochschild, 1995). Via the cultural reification of caring as innately feminine, a disposition towards and the work thereof are framed as “natural” or “biologically” determined (Bubeck, 1995).

Francesca Cancian and Stacey Oliker (2000) attempt, however, to dismiss biological justifications for the devaluation of care work by tracing the evolution of separate domestic and public spheres. They argue that prior to industrialization, the home constituted the “workplace” in which both men and women were involved, via varying specialties, in caring activities (e.g., tending to children, elders, food attainment and preparation, etc.). However, the ascendancy of

tensions between pay, profits, and care are central, this material will be discussed within the commodification of care section.

capitalism, through which labor became increasingly associated with the market, engendered a distinction between [public, male] work and [privatized, female] housework arose, in which the reproductive nature of the latter became “less visible as work” (Brown, 1995). In so doing reproductive, domesticized labor is no longer considered real labor and, as such, is increasingly devalued. Based on this analysis, Cancian and Oliker argue that it is the so-called “separate spheres ideology”—as opposed to biological determinism—that supports the idea that: “Caregiving is seen as an emotional, natural activity of women that does not require specialized knowledge or training” and, therefore, undeserving of good wages (p. 88).

In contrast, classical economists often refer to the theory of compensating differentials to explain the poor wages associated with female jobs more generally and caring labor more specifically. Originally framed by Adam Smith, this theory highlights the intrinsic rewards or penalties—termed “non-pecuniary amenities and disamenities” respectively—associated with specific jobs and argues that, all else being equal, employers are required to offer better compensation to those positions with greater non-pecuniary disamenities (e.g., physical repetitiveness, lack of freedom, job insecurity) (England, Budig & Folbre, 2002; England, Folbre, 1999; Folbre & Nelson, 2000; Jacobs & Steinberg, 1990; Nelson, 2001). Within the context of caring labor, this theory suggests that intrinsic fulfillment and reward attained by caring for others constitutes a non-pecuniary amenity, thus “motivating people to work in caring labor and making them willing to take such jobs for a lower wage relative to the human capital investment required” (England, Budig, Folbre, 2002, p. 458-9).

In an attempt to examine the validity of this theory, Robert Smith (1979) conducted a review of several studies exploring compensating differentials. He noted that economists consistently highlight several job characteristics (though isolated at the time to male samples) noted as unfavorable, namely: “work requiring heavy physical labor; work involving noise, temperature extremes, dirt or hazardous materials; repetitious work; fast-paced work; work involving low autonomy; stressful work; job insecurity; work with machines; and work involving risk of injury or death” (Jacobs & Steinberg, 1990, p. 442). The review concluded, however, by stating that less than half of the aforementioned characteristics were found to enhance salaries in the expected manner. Jacobs and Steinberg (1990) report similar findings based on an analysis of approximately 25,000 employee responses concerning the characteristics of 1,065 different jobs within New York State: working conditions accounted for a meager 3% of wage differentials in New York State (with the vast majority--86%--of differences accounted for by “productivity-related” variables) (p. 454-5). And, based on a review of contemporary studies, Nancy Folbre and Julie Nelson (2000) find that the evidence is “generally non-supportive” of the proposition that non-pecuniary disamenities are associated with “wage premiums” (as cited in Folbre & Nelson: See Duncan & Holmlund, 1983 for research finding a wage premium, p. 42).

Finding little support for the compensating differentials hypothesis in explaining the wage gap associated with female labor, others have turned towards comparable worth studies. This research attempts to critically interrogate widespread evidence indicating that jobs primarily filled by women receive less pay than would be expected if filled primarily by men (England, 1992). Even after adjusting for education, skill level, and associated working conditions, this research strongly indicates a sex bias in wage setting, such that women—on average—receive less pay than male counterparts (England, 1992, 2005; Jacobs & Steinberg, 1990; Sorensen,

1994). Focusing specifically on care-related labor, Paula England has explored not only sex- but also care-related wage penalties for nearly two decades (England, 1992; England, Budig, & Folbre, 2002). Based on a multivariate analysis of U.S. census data exploring occupational titles and their associated wages, England (1992) finds a \$0.24 - \$1.71/hour “wage penalty” associated with “nurturant” occupations (e.g., childcare, nursing, waiters, etc.); a difference noted even after controlling for skill demands (e.g., education level), working and market conditions (e.g., level of managerial authority, industry type), and occupational sex composition.

More recently, England and colleagues (2002) analyzed panel data obtained from the National Longitudinal Survey of Youth to explore the existence of care-related wage penalties amongst professions that provide face-to-face care, specifically those involved in the development of human capabilities (e.g., physical and mental health, physical skills, cognitive skills, and emotional skills): child care, teachers (e.g., pre-K through university professors), and health care workers (e.g., nurses aides, nurses, doctors, physical and psychological therapists). Utilizing individuals as their own controls via a mixed-effects analysis of changes in pay associated with leaving/entering caring positions, the authors find—net of controls (i.e., skill demands and working and market conditions)—an average 5-6% wage penalty for both men and women involved in caring labor, with the most significant penalty found among female child care workers at 41%. Based on this research, England posits (1992; England, Budig & Folbre, 2002) that women receive, on average, less pay for work because of their over-representation in caring/nurturant jobs. Akin to Cancian and Oliker’s separate-spheres position (2000), she postulates that the devaluation of this type of labor is based on its traditional association with “mothering” and “women’s work” more generally within the home.

The theoretical and empirical scholarship presented by Folbre, England, Cancian and Oliker, among others, suggests that care is devalued because it is culturally framed as innately natural¹¹, feminine, private, and an emotionally-based response to meeting needs. Joan Tronto (1993) suggests that such a frame positions care as the conceptual opposite of those qualities valued within liberalism, namely: masculine, public, autonomous, and rational. And, it is precisely this—the reality that care framed as such “embodies [liberalisms] opposites”—that leads to its continued devaluation (p. 117). There is then a call to re-script the frame and, as such, the discourse, the practice, and the politics surrounding care in such a way that simplistic dichotomies are avoided and the universal, inter-dependent realities of care become central.

Care As a Public Good. Responding to such a call, several scholars have argued for a re-conceptualization of care to include the ways in which it functions as a “public good,” due to its ability to foster substantial social benefits enjoyed far beyond the direct recipients (England, 2005; England & Folbre, 1999; Folbre, 1994, 2001, 2008; National Center for the Early Childhood Work Force, 1994; Nelson, 2001). Take the care of children for example. It is argued that the labor invested in rearing a responsible, thoughtful, and loving child will benefit not only said child (and possibly his/her immediate family) but also society at large, as illustrated by Paula England (2005):

¹¹ “Natural,” that is, opposed to an arduous investment in human capital via education and training—see Nelson, 2001.

“If children given love and taught patience and trustworthiness turn out to be better spouses when they grow up, their spouses benefit. If they are better parents, their children benefit. If they are better neighbors, the social capital of the community increases. If they become good Samaritans rather than predators, safety goes up, and the costs of building and maintaining prisons go down, benefiting their fellow citizens (P. 386).

Fundamental to this claim is the assertion that this labor entails considerable investments in human “capabilities,” as opposed to work, for example, involving the production of immediately consumed goods (England, 2005). Originally delineated by economist Amartya Sen (1983, 1992) and further developed by Martha Nussbaum (2000) the capabilities perspective asserts the existence of basic capacities that must be addressed in order to maintain and ideally promote human functioning. Although Sen refrains from directly endorsing a universal set of basic capabilities (as doing so, he argues, ensures applicability based on specific societal contexts), Nussbaum (2000) suggests there exists an “overlapping consensus” between societies on those capabilities and capacities considered necessary for adequate well-being (p. 74). Attempting to move beyond a theory of basic capabilities based on “mere projection of local preferences” towards one that is “fully international and a basis for cross-cultural attunement,” she offers the following list of “basic human capabilities:” life; bodily health; bodily integrity; senses, imagination, thought; emotions; practical reason; affiliation; other species; play; and, control over one’s material and political environment (2000, p. 74 & 64) (please see Appendix H for a more comprehensive explanation of each capability).

To explore connections between capabilities and care theories, let us briefly employ Nussbaum’s capabilities concerning “senses, imagination, thought,” “emotions,” “affiliation,” and “control over one’s environment” within the context of childcare. Fostering the development of capabilities under these circumstances (considering but four of the 10 outlined capabilities) would thus involve providing the conditions through which children can develop the ability to “imagine, think, and reason,” and support forms of “human connection, attachment, interaction, and association” (Nussbaum, 2000, p. 58-9). As described, it would also necessarily require consideration of the ways in which (or not) the caregiver is treated in a dignified, non-discriminatory manner, to include upholding her political and material well-being. Towards the latter, one might question: does the care provider possess—by virtue of her citizenship status, for example—the rights of political participation; is her freedom of speech and association constitutionally protected; and, is her labor recognized as individually and socially beneficial and, thereby, commensurately compensated? This example highlights the ways in which the capabilities perspective complements the work of care theorists, particularly that of Joan Tronto (1993—see previous definitional section) by: (1) underscoring the reality that—despite those arguing its innate, natural characteristics—caring labor requires one to be conversant with a diverse knowledge and skill base; and, (2) calling for a critical appraisal of the terms and conditions under which care is rendered in order to maintain and (ideally) enhance the capabilities of both the care recipient *and* provider.

Defamilization and Marketization of Care. Several scholars have, thus, attempted to explore further the mechanisms through which care is currently delivered (Arrow, 1997; Clement, 1996; England, 2005; Folbre & Nelson, 2000; Held, 2002; Hochschild, 1983; Tronto, 2006). Towards this end, England and colleagues (2002) suggest that the current constellation of care, based on predominantly market-based options in addition to a small percentage of public

subsidies, fails to adequately meet care needs as well as foster a capabilities-enhancing environment for recipients and providers, based on poor quality and low wages/benefits respectively. As base, concerns arise regarding the ever-increasing defamilization and marketization of care and the ways in which the shape, form, and character of caring is altered by entering the market (Glenn, 2000; Held, 2002). For example, Virginia Held (2002) questions: “what values are served or harmed by this transition (p. 20)?

Particularly within the social and cultural framework of liberalism, the defamilization of care is presented, however, not without its advantages. As discussed in previous sections (see *Genealogy of Care*), liberalism frames care as a “private” concern, the rhetoric of which implicitly and often explicitly supports market-based solutions to care needs (Tronto, 2006). The market is seen as a mechanism through which individuals and families are able to purchase care to suit their particular needs and preferences—thus upholding notions of individual choice. For example, market-based options provide [some] women with the opportunity to pursue vocational and other opportunities outside of the home, thereby potentially freeing them from having to provide daily care for children, disabled, and/or aging family members (Arrow, 1997; Held, 2002). In doing so, the economic independence of [some] women is enhanced by their ability to garner wages, benefits, and retirement funds to do with as they so choose.

At closer glance, however, several questions arise. As noted within the previous intersectionality section, women do not universally “share the same lot” (hooks, 1985), such that the liberation of some women from the “oppressive ranks” of domesticity has led to the (some would argue, necessary) encumbrance of others (Brown, 1985; Duffy, 2005, 2007; Glenn, 1985; Harrington, 1999; Hondagneu-Sotelo 2000; Macklin, 1994; Glenn 1992; Tronto 2002). Again, as posed by Parker (1981): one must ask: “who is left to perform the tasks of caring...and what implications [does that have] for the social and economic distribution – or re-distribution – of opportunities, status and freedoms” (p. 31)? Also, what of the individual or family that cannot afford services within the market? What “choices” are they left with—to provide care themselves, be placed on extended waiting lists for limited subsidized options, and/or possibly purchase lower-cost and likely poorer-quality services? Who then, more generally, enjoys the benefits of increased “choice” in purchasing care within the market (Daly & Lewis, 2000)?

Questions such as these highlight some of the arguably inherent limitations associated with providing care within the market (Clement, 1996; England, 2005; Folbre & Nelson, 2000; Held, 2002; Hochschild, 1983; Tronto, 2006). With regard to the quality of market-based caring services in particular, Kenneth Arrow (1997) suggests further that direct recipients of caring services—children, ill/disabled, elderly—often lack “consumer sovereignty,” such that they do not directly purchase these services, rather they are purchased by a third party (e.g., parent, adult child, etc.) (Fisher & Tronto, 1990). In so doing, monitoring quality becomes a rather challenging task indeed. Robert Putnam (1993) suggests also that the marketization—even of high quality—caring services has the potential to erode social capital. That is, large, non-community based corporations that are increasingly providing these services are not, in the sense of family or local- or neighborhood-based organizations, implicitly or explicitly concerned with engendering networks and trust that “facilitate coordination and cooperation for mutual benefit” (Putnam, 1993, p.2). The primary objective of these organizations is, rather, profit.

Virginia Held (2002) has also drawn close attention to the priorities and norms of various for-profit organizations and the ways in which they may contradict or threaten the terms under which care is ideally rendered. She states that the “issues are not working for nothing [e.g., in-home care by family] vs. working for pay or whether market imperatives such as efficiency and effective management have any place in an activity, but rather what has *priority*” (emphasis added, p. 23). She cautions that “efficient management and high productivity”—the goals of for-profit enterprises based on their responsibility to shareholders to maximize profit—are likely to take precedence and/or supercede “independent thought or social responsibility” (p. 27). And, as suggested by Grace Clement (1996) a focus on profit maximization will likely impact quality and lead to autonomy of employees being sacrificed at the price of efficiency—for example, via pre-determined protocols, productivity standards, and increased routinization (Abel & Nelson, 1990).

In an attempt to explore such claims, Evelyn Nakano Glenn (2000) reviewed several ethnographic studies of care within elder settings in particular, finding that many care workers “...do provide quality emotional care, but they do so ‘around the fringes’ so that their skills and effort are unrecognized or they do so in direct defiance of the rules.” Adding further, she suggests that these studies “point to the existence of ‘oppositional cultures’ in which workers cooperate to provide the kind of care that the bureaucratic structure does not recognize or disallows” (p. 91). In an attempt to offer alternative, promising mechanisms through which to provide care, she suggests that encouraging a team approach to caring in which workers can “model and support” one another, in addition to ensuring that the recipients of care have “a voice and influence over their care” will likely produce improved results for all involved.

In discussing alternative models of care, Held (2002) draws an interesting point by stating that many of those arguing for or against the marketization of caring labor, often fail to take account of different forms of care provided within the market. That is, there is often a discussion of for-profit care vs. care provided (for free) within the home. She suggests that looking to and exploring the possibility of, for example, cooperative or not-for-profit organizations could assuage many of the concerns associated with for-profit care provision. Unlike for-profit enterprises, she argues that cooperatives in particular “would not be governed by market principles...and that [they] might value care in entirely appropriate ways” (p. 24).

To explore this possibility, let us turn towards a brief summary of current childcare needs and labor conditions within the U.S. context, historical attempts to improve childcare labor conditions, and thoughts regarding the promise of the cooperative model to positively impact childcare labor conditions.

SECTION 3: CONTEXTUALIZING THE THEORETICAL

3.1. A Changing Childcare Landscape

As noted in the introduction, the past several decades have given rise to an increasing demand for out-of-home care. Within the childcare sector specifically, the “care deficit” is largely the effect of women, particularly mothers, increasingly entering the paid labor force by choice or necessity. The Bureau of Labor Statistics (2009) estimates a ~ 25% rise in labor force participation among mothers of children ages 0 – 18 from 1975 to 2007. By further

disaggregating the rates of maternal labor participation by specific age groups of children (please see Table 4 below), attention is drawn to the reality that even mothers of very young children (0-6) are (re)entering the labor force in unprecedented numbers.

Table 4: Percentage of Mothers in Paid Labor Force by Age of Child(ren)

Age of Children	March 1975	March 2007
Ages 0 – 3	35%	60%
Ages 0 – 6	39%	62%
Ages 6 – 17	55%	80%
Source: Women in Labor Force Databook, Bureau of Labor Statistics (2009).		

The National Research Council and Institutes of Medicine (Shonkoff & Phillips, 2000), estimates further that within the U.S. “...more than 50 per cent of under-ones are in some form of child care – three quarters of them from the age of four months or earlier and for an average of 28 hours per week (as cited in UNICEF, 2008). Findings such as these point to the fact that approximately 62% of non-school aged children (ages 0 – 6) are thus in need of time-and labor-intensive non-custodial care—in addition to the after-school care needs of older children (Capizzano & Adams, 2004; National Association of Child Care, 2010; Park-Jadotte, Golin & Gault, 2002). And, although some nations have responded to this need by instituting publicly provided childcare (e.g., France), the United States among others (e.g., Canada) has developed a mixed industry of center-based care, with non-profit organizations and for-profit businesses providing the majority of this type of care¹² (Morris & Helburn, 2000). The associated costs of which are beginning to constitute an alarming percentage of family income, with the 2011 national average estimated at 10% of monthly earnings for a two-parent family (specifically for infant care) (Child Care Aware, 2012).

Given the rising need for childcare, its associated high costs, and the mounting body of “neuroscientific research demonstrating that loving, stable, secure, and stimulating relationships with caregivers in the earliest months and years of life are critical for every aspect of a child’s development,” the quality of care environments has also taken on increasing importance (UNICEF, 2008, p. 1). And as described previously, of those factors shown to be associated with quality childcare, the labor conditions and work environment of care staff/providers consistently emerge among the most significant.). Despite these findings, current research suggests that the

¹² Although the current research is particularly concerned with center-based care and the labor conditions therein, it should be noted that many children receive care from relative (e.g., parent, grandparent, sibling, etc.) and/or other non-relative care providers (e.g., Nanny, home-based childcare providers) who may or may not receive compensation for their labor. Based on a recent analysis of the 2005 *Survey of Income and Program Population* (SIPP), Laughlin (2010) estimates that among pre-school children, 41.3% receive regular care from relatives, while 34.9% are involved in non-relative care. Of the latter group, 23.3% are enrolled in organized care facilities (13.5% day care, 6.3% nursery or preschool, 4.7% Head Start) and 13.4% are involved in “other non-relative care” (e.g., care provided in child or provider’s home). Limitations associated with focusing on center-based care alone, as opposed to—for example—an analysis of labor conditions associated with home-based care providers, will be explored in the concluding chapter.

labor conditions of childcare workers are less than optimal.

3.2. Childcare Labor Conditions

Based on a recent survey of occupational earnings, the U.S. Department of Labor (2008) estimates the mean hourly wage of childcare workers to be \$9.73, with a corresponding annual median annual wage of \$17,440. Occupations exhibiting comparable wages include: locker room, coatroom, and dressing room attendants (\$11.55); dishwashers (\$8.89); fast food cooks (\$8.84); short order cooks (\$9.78); and, baggage porters and bellhops (\$8.22) (U.S. Department of Labor, 2008).

In an attempt to explore the low wages of childcare workers, despite increasing demand, Julie Nelson (2001) reviews several prevailing economic/labor market theories in relation to the childcare sector. Despite arguments suggesting that childcare does not require the acquisition of particular skills/training (i.e., lacking in human capital investments), she cites research indicating improvements in childcare quality with higher levels of staff education and training (NICHD Early Child Care Research Network, 1996; Whitebook, Howes, & Phillips, 1990; Burchinal, Cryer, Clifford, & Howes, 2002; Goelman, Forer, Kershaw, Doherty, Lero, LaGrange, 2006). Concerning the compensating differentials argument (presented in Devaluation of Care section), she suggests the non-pecuniary amenities associated with childcare (e.g., social interaction; see Wharton, 1999) do not adequately offset the undesirable labor- and time-intensive conditions of this work (e.g., repetitious work often involving low levels of autonomy, extended hours, etc.) to justify such low wages. She also argues that the theory of crowding, the idea that women previously excluded from other professions “crowded” into the caring professions thereby depressing wages due to an oversupply of labor (Nelson, 2001), is not supported within the childcare sector given chronic staffing shortages (Whitebook, Sakai, Gerber, Howes, 2001). She concludes by arguing that any campaign calling for improved wages and labor conditions of childcare workers “must stress the important social contribution made by early education and care, in such a way that...caring and educating skills are recognized” (p. 14).

3.3. Prior Attempts to Improve Childcare Labor Conditions

Several such campaigns, programs, and strategies have been attempted to improve the labor conditions of childcare workers. Dating back to the 1940s with increasing momentum in the ‘60s and ‘70s, several efforts were made to unionize the childcare workforce (e.g., Boston Area Day Care Workers United) (Whitebook, 2001). Although doing so proved an effective means through which to enhance labor conditions, many childcare unions ultimately failed to operationalize and/or were ultimately disbanded due to several noted barriers, to include:

- Small shops in childcare deliver little in dues revenue to unions
- Workers organizing in small workplaces are easily identified and vulnerable
- Unions are resistant to organizing such a fragmented workforce, particularly given high levels of staff turnover
- Unions can be resistant to adapting their traditional strategies to the specific needs of child care work sites, particularly the close personal relationships between clients and workers, and sometimes management (directors) and staff
- Considerable anti-union/ “union-busting” efforts (e.g., National Association of child Care Management) (Whitebook, 2001, p. 19).

- Federal Legislation (i.e., Taft-Hartley Act of 1947; Landrum-Griffin Act of 1959) impacting the effectiveness of union-related activities/strategies (e.g., limitations on striking, picketing, etc.) (LeBlanc, 1999)

Given the associated challenges of unionization, advocates redoubled their efforts within the national policy arena, culminating in the 1971 Comprehensive Child Care Act. Despite widespread support, President Nixon ultimately vetoed the Act suggesting that its passage would “Sovietize American children” (Whitebook, 2001). Long-time researcher of and advocate for the childcare sector, Marcy Whitebook (2001) cites Nixon’s veto as a decisive moment in the history of attempts to improve the conditions under which childcare is rendered and received. She argues that the veto sent a strong message to the childcare advocate community, namely: attempting to shift responsibility for childcare from the home to the State, for example, would not come without a considerable struggle.

Once again, the childcare community was called upon to reorient their advocacy efforts. In so doing, the need for empirical research concerning the connections between labor conditions and childcare quality emerged as (and continues to be) a priority. Several large-scale, longitudinal studies were thus undertaken, of which the National Child Care Staffing (Whitebook, Howes & Phillips, 1990) and the Cost, Quality and Child Outcomes (Helburn, 1995) studies are particularly noteworthy. Data obtained from both studies underscored strong connections between childcare workforce investments (e.g., wages, benefits) and quality services. The early ‘90s¹³ also gave rise to the “Worthy Wages Campaign,” which worked to further increase the visibility of workforce compensation on local and national childcare agendas (Whitebook, 2001).

Such research and advocacy efforts were instrumental in the passage and/or development of two prominent federally funded programs: The Head Start Quality Improvement Act and the U.S. Army’s Caregiver Personnel Pay Plan. The passage of the 1990 Head Start Expansion and Quality Improvement Act allocated more than \$450 million to increase the salaries of an estimated 100,000 Head Start teachers and staff (Whitebook, 2001, p.25). And, the U.S. Army’s program designed a career ladder, including “educational requirements and pay schedules for all centers and homes participating in the Army child care system,” in addition to the provision of life and health insurance, sick leave, and retirement benefits (Whitebook & Eichberg, 2001, p.11). Interestingly, in planning for and designing the latter program, developers found that the costs associated with turnover, for example—training, retraining, multiple background checks—were on par with the projected costs of improving salaries (Campbell, Appelbaum, Martinson, & Martin, 2000).

¹³ It should also be noted that at this time federal legislation was passed attempting the support the rising childcare costs of low-income families. In particular, the passage of the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) also authorized the Child Care and Development Fund (CCDF), funds from which were met to subsidize the childcare needs of low-income families. In addition to these funds, estimated at \$5 billion in 2011 (U.S. Department of Health and Human Services, 2011), states could also make use of some monies available through the new welfare reform [sic]—now called Temporary Assistance to Needy Families (TANF) (Whitebook, 2001). Although CCDF and TANF funds were made available in order to respond to the rising need for childcare among women being forced to (re)enter the labor market (i.e., given the work requirements and time-limited nature of TANF), the need *far exceeded* the supply. As cited in Giannarelli and Barsimantov, recent estimates suggest that the CCDF “serves only 10 percent to 15 percent of the children who are eligible for those subsidies” (p. 1). These funds also failed to address the rising care needs of those ineligible for subsidized care.

Also, by the year 2000, research and advocacy efforts reportedly spawned the development of several programs and strategies aimed at improving childcare labor conditions in 20 states (Park-Jadotte, et al., 2002; Whitebook, 2001). At least partially funded with monies from the Child Care and Development Funds (CCDF) and the Temporary Assistance to Needy Families (TANF) block grant, many of these programs have indirectly and directly improved working conditions. The North Carolina TEACH program, for example, provides a comprehensive package of incentives aimed at improving labor conditions and reducing turnover, to include: “a credential program whose participants receive a wage bonus; a variety of training options in which community college credits are tied to raises; a mentor teacher program, in which experienced teachers receive a stipend in exchange for mentoring student teachers in their classrooms; and a four-year college degree program” (Whitebook & Eichberg, 2001, p. 21).

In contrast to the laudable scope and quality of the TEACH program, several other state-level programs are comprised only of stipends associated with meeting certain criteria, for example, additional training or certifications (e.g., California C.A.R.E.S). Unfortunately, however, these incentives are independent of the worker’s salary, and “the recipient must periodically apply for the additional funds, must independently arrange to pay taxes on them, and may have to meet other criteria to continue to qualify” (Whitebook & Eichberg, 2001, p. 8). As such, although certainly welcomed, these “add-on” programs fail to ensure systemic and stable wage/salary improvements.

Although this brief review underscores national and state-level recognition of the need and the subsequent design of programs to improve childcare labor conditions, several of the programs focus exclusively on increased compensation (many of which via problematic “add-on” incentive structures) while failing to include other system enhancement efforts (e.g., health and retirement benefits, career ladders, education advancement opportunities, etc.). Also, what of the remaining estimated 30 states with no state-supported initiatives? What of the labor conditions and associated quality of childcare therein? Given the lack of a unified, national plan to improve labor conditions, limitations in program enhancement due to inadequate funding, and the noted challenges associated with market-based alternatives (see the Defamilization and Marketization of Care section), several advocates and researchers have begun to explore possibilities within the “third sector.”

3.4. Cooperative Childcare: Promising Model for Improved Labor Conditions

The “third sector of the economy,” comprised of non-profit entities that “fit neither the standard capitalist nor standard public-enterprise models” present an alternative, hybrid approach that “...offers local governments resources to meet care needs but encourages subcontracting to small businesses that can be held accountable for high quality (Folbre, 2008a, p. 384). In discussing recent trends within the United Kingdom towards this end, Nancy Folbre (2008a) suggests that: “Worker-owned businesses and cooperatives offer a particularly promising model for care provision,” particularly given the ways in which they are—by design—largely local, community based entities (p. 384). Several researchers, scholars, and advocates of early childhood care/education have furthermore argued the merits of local, community-based caregiving organizations, citing their ability to be more responsive to local needs (e.g., culturally responsive

services), engender the establishment of long-term relationships, and foster social capital (Cancian & Oliner, 2000; Coontz & Esper, 2003; Fuller, 2007; Putnam, 1993, 1995). As illustrated by Cancian and Oliner (2000):

Community caregiving has benefits for individual caregivers, care receivers, and for families within communities. Care in the community can be more responsive to local needs and be more comforting and familiar. Community caregiving builds community commitment and belonging. It can spark community deliberation, collective action, and needs-based innovation. It can also enlarge the terrain of good citizenship" (p. 141).

SECTION 4: FRAMING THE CURRENT RESEARCH

As noted throughout this chapter, the scholarship of contemporary feminist theories of care emphasizes the fallibility of liberal individualism to adequately define and thereby respond to care needs. In her essay '*Liberalism's Family Values*,' Wendy Brown (1995) analyzes not only the ideology but also the discourse of liberal individualism and in doing so elucidates the mechanisms through which it functions. Towards this end she suggests that liberalism's emphasis on, for example, equality, liberty, autonomy, rights, and the individual are constitutive of and dependent upon notions of necessity, dependency, needs, and the family respectively (p. 152). She suggests, for example, that liberty "...marks the freedom to do what one desires, the freedom to discover and pursue one's interests where the law does not interfere." Thus defined liberty necessarily depends upon the encumbrance of others, almost always falling within "private and reproductive domains" (p. 155). She suggests that: "Insofar as this formulation of liberty requires the existence of encumbered beings, the social activity of those without liberty, it can never be fully universalized" (p. 156).

Similarly, the notion of individual autonomy—understood as one's ability to move about freely in civil society, to provide for him/herself, and to possess a generalized self-orientation—relies upon a "large population of non-autonomous subjects, a population that generates, tends, and avows the bonds, relations, dependencies and connections that sustain and nourish human life" (p. 156-7). Again, the emphasis is on the ways in which one—*autonomy*—relies and is dependent upon the other—*encumbrance*. As such, Brown's analysis draws attention to the implicit, dualistic assumptions of liberalism and, in doing so, attempts to de-center the discourse of rights and autonomy and elicit questions such as: equity, freedom, and autonomy for whom, on what terms, and at what or whose expense? In summoning a response to such questions, a discourse of need, social connectivity, and interdependence thus emerges as a viable and alternative discourse through which to re-conceptualize and, thereby, respond more justly to growing care needs.

(Re)Centering the discourse in this manner has subsequently led many to interrogate the terms under which caring labor is rendered. As noted in previous sections, several scholars have traced the ways in which caring labor is devalued, noting poor social and economic compensation endemic within the sector (Cancian & Oliner, 2000; England, Budig & Folbre, 2002; England, Folbre, 1999; Folbre & Nelson, 2000; Jacobs & Steinberg, 1990; Nelson, 2001). Ultimately dismissing alternative explanations, notably those suggesting low human capital investment (e.g., England, Budig & Folbre, 2002), compensating differentials (e.g., Jacobs & Steinberg, 1990),

and crowding effects (e.g., Nelson, 2001) as empirically unsupported, scholars such as Folbre, England, Cancian and Olicker suggest that care is ultimately devalued because it is culturally framed as innately natural, feminine, private, and an emotionally-based response to meeting needs.

Probing deeper, Joan Tronto (1993) advances the analysis by situating such findings with the larger critique and socio-political context of liberalism. That is, she suggests that framing care as such—innately natural, feminine, private, and an emotionally-based response to needs—positions care as the conceptual opposite of those qualities valued within liberalism, namely: masculine, public, autonomous, and rational. And, it is precisely this—the reality that care framed as such “embodies [liberalisms] opposites” or, as Wendy Brown might suggest—its constitutive others—that leads to its continued devaluation (p. 117). Thus attempting to advocate for more caring social/public policy or “developing an institutional context that facilitates the work of care” *without* re-conceptualizing care “may seem an impossible if not outright contradictory project” (White, 2000, p. 1).

In an attempt, therefore, to break away from liberalism’s inherent dualisms (e.g., liberty – encumbrance, individual – family; public – private) and (re)script caring discourse, the genealogy of care section highlights the work of scholars arguing for a re-conceptualization of care to include the ways in which it functions as a “public good,” due to its ability to foster substantial social benefits enjoyed far beyond the direct recipients (England, 2005; England & Folbre, 1999; Folbre, 1994, 2001, 2008; National Center for the Early Childhood Work Force, 1994; Nelson, 2001). As noted therein, this thesis hinges on the notion that caring labor entails considerable investments in human “capabilities,” as opposed to work, for example, involving the production of immediately consumed goods (England, 2005).

It appears that a unique contribution gained by including connections between caring labor, capabilities enhancement, and public goods is that it raises questions concerning the *location* of responsibility to ensure care needs are adequately met and on terms that ensure the capabilities of care providers are not sacrificed therein (Engster, 2004). That is, if we understand caring work to be essential to the development of cognitive, emotional, and social skills as well as values and habits that benefit the recipients, providers, and—thereby—society at large, should individuals (and/or families) bear the sole responsibility of meeting care needs (via their own or market-based labor options) or does society have a collective responsibility to contribute in some way as well (England & Folbre, 2000)?

Those who raise such questions, cite public education as an example of the ways in which our society has assumed shared responsibility for this type of caring labor based on its social benefits (England, Budig, & Folbre, 2002; England & Folbre, 1999; Folbre, 2008; Nelson, 2001). As noted by Paula England and Nancy Folbre (1999): “Government funding of schools is justified by the argument that we collectively benefit from a better-educated citizenry.” Expanding the argument to caring labor more generally, they add that the “case for public support of childrearing and public subsidies for the wages of workers in caring occupations could be framed in similar terms” (p. 45). Following from this statement, questions arise concerning the potential role of the State in supporting and/or supplementing caring labor. That is, if caring labor is essential to the development of capabilities of both the providers and recipients—the effects of

which benefit the whole of society, does the State then have a responsibility to its citizenry to improve the terms under which caring is rendered? That is, does the State have a responsibility to improve, augment, and/or support *models* of care that improve the conditions under which caring labor is rendered within, for example, daycare settings, early childhood education, long-term care facilities, and nursing homes?

The domain of exploring alternative delivery modes, mechanisms, and models, and the ways in which the State could be involved in their functioning is notably limited, however, within care scholarship. As discussed, quite a bit of merited, productive attention is focused on critiques of liberal individualism; however, very few care scholars (pace Glenn and Held) move beyond this to offer suggestions regarding how such care might be re-configured in concrete, practical terms. Although Evelyn Nakano Glenn (2000) suggests that encouraging a team approach to caring in which workers can “model and support” one another, in addition to ensuring that the recipients of care have “a voice and influence over their care” will likely produce improved results for all involved, she fails to propose and/or endorse one or more models of care that might best approximate her recommendations.

Virginia Held (2002), however, skillfully situates her recommendation of alternative models within the larger critique of liberal individualism, while also speaking to the possible role of the State in service provision. In doing so, she suggests that a particular shortcoming of liberalism lies in its failure to respond to questions concerning the marketization (or not) of caring labor. One might assert, for example, that the market fails to ensure equal access to food, shelter, and healthcare, thus calling upon a “government concerned with justice” to intervene. Bearing witness to the increasing decentralization of many Western welfare states, one notes that such intervention increasingly involves ensuring individuals are able to re-enter the market to purchase said necessities via, for example, food stamps, housing and school vouchers, and subsidized health care (Coontz & Esper, 2000). Virginia Held (2002) suggests, however, that: “Liberal individualism does not seem to address such questions as whether the institutions providing the food, the housing, the medical care, and the education, should be private and profit-making, or cooperative and socially responsible, whether, in other words, they should be in or out of the market and governed or not governed by its values” (p. 28). In contrast, building from a conceptual foundation asserting the universality of care needs and the ways in which caring labor produces public goods via investments in human capabilities of both care providers and recipients (as put forth by care theorists), Held (2002) suggests that the latter model—namely, local, community-based cooperatives—“would not be governed by market principles...and that [they] might value care in entirely appropriate ways” (p. 24). The value of care, that is, would (likely) take priority over economic gain.

Exploring the values underlying care theory and the cooperative model more directly, the complementary nature of the two emerges. Joan Tronto (1993) suggests that an ethic of care is premised on valuing notions of responsibility, competence, attentiveness, and responsiveness. Similarly, as outlined in Chapter 1, the International Cooperative Alliance (ICA) (2009) offers the following values as foundational in guiding the development and governance of cooperatives: caring for others, social responsibility, democracy, equality, and solidarity. With the alignment among theoretical and practical values, it appears that cooperatives involved in the provision of caring services might provide—as suggested by Held (2002)—a decentralized, community-based

model that institutionally values care. What role does this then leave for the State? As discussed previously, shifting primary responsibility for childcare from home to State appears a rather volatile endeavor indeed (e.g., Nixon's veto of the 1971 Comprehensive Childcare Act). A more politically feasible means through which the State may demonstrate its "value" for this type of care (and, more directly, its associated impact on the capabilities development of both care providers and recipients) is via economic and logistical support. And, it is precisely this role and associated support mechanisms that are currently being considered within H.R. 3677—the National Cooperative Development Act.

As such, the current study utilizes feminist theories of care as a fecund socio-political frame through which to: (1) theoretically re-center the discourse of care away from notions of autonomy and self-sufficiency and towards those of *interdependence* and social connectedness; and, (2) inform an *empirical* investigation of childcare labor by calling attention to not only labor conditions but also the organizational structures through which they are provided by examining potential differences among for-profit, non-profit, and cooperative providers.

CHAPTER 3: METHODS

SECTION 1: STUDY DESIGN

Data for the current project were collected during the “You Bet I Care!” (YBIC!) study conducted throughout Canada during the late 1990s/early 2000. Funded by the Canadian government, the three-phase study is the largest and most comprehensive assessment of childcare centers ever conducted within Canada. Phase I, conducted during mid-1998, was comprised of surveys conducted with center directors and staff concerning wages and working conditions (Doherty, Lero, Goelman, LaGrange, & Tougas, 2000). Building upon Phase I and conducted during December 1998, Phase II included center, director, and staff surveys covering various topics (e.g., wages, working conditions, center policies, etc.), in addition to three measures of quality based on classroom observation (Goelman, Doherty, Lero, LaGrange, & Tougas, 2000). A much smaller study, Phase III was primarily concerned with assessing quality among regulated family-based childcare providers. The current research utilizes data obtained during Phase I, as it constitutes the largest publicly available database known to the researcher that (i) includes auspice identifiers including parent cooperatives; (ii) a significant and relatively balanced percentage of for-profit, non-profit, and cooperative childcare providers; and (iii) a comprehensive survey of labor conditions.

SECTION 2: STUDY SITE & POPULATION

The study population for Phase I of the YBIC! study was originally comprised of 1,798 childcare centers (53.6% non-profit, 44.2% for-profit, 2.2% municipal¹⁴) located throughout Canada’s ten provinces, Northwest Territories, and the Yukon. Of these centers, a total of 848 useable center questionnaires (63% non-profit, 35% for-profit, 3% municipal) and 4,154 Staff Questionnaires (70% non-profit, 26% for-profit, 4% municipal), were obtained (Goelman, Doherty, Lero, LaGrange, & Tougas, 2000). The current study draws upon a somewhat modified sample. Specifically, municipal centers (n=24) and their related staff surveys are not included due to the proposed research questions, limited sample size, and geographical limitations (obtained from Ontario only). Also, given that the center and staff databases were merged by the “sitecode” variable,” only those cases containing non-missing data for this variable were included, which resulted in the deletion of 4 (0.47%) centers and 40 (0.96%) staff surveys.

¹⁴ Within Canada “municipal” centers are those centers run directly by the surrounding city—as opposed to non- and for-profit entities. At the time of the YBIC! study, Alberta and Ontario were the only provinces in which there were municipally operated childcare centers, and the study surveyed only those within Ontario. As such, municipal centers constitute a very small percentage of the overall centers surveys and will, therefore, not be explored herein. It should be noted also that the funding of early childhood education within Canada is much like that provided within the United States. That is, the care and education of children is de-centralized, with each of the ten provinces and three territories (or states within the U.S.) assuming primary responsibility with the assistance of fund transfers from the federal government. It should be noted, however, that the federal government is involved in the direct provision of early childhood education/care for First Nation communities, military families, and immigrants and refugees (Canadian Parliament: <http://www.parl.gc.ca/content/LOP/ResearchPublications/prb0420-e.htm>)

Finally, given that the primary independent variable of interest for the current study is “auspice” (non-profit, for-profit, and parent cooperative), an analysis of response patterns revealed a total of 96 (11.4%) and 1,382 (33.5%) cases of missing auspice data within the center and staff databases respectively¹⁵. As a result, the current study utilizes a final sample of 748 childcare centers (44.7% non-profit, 36.5% for-profit, and 18.9% parent cooperative) and 2,743 staff surveys (52.5% non-profit, 28.7% for-profit, and 18.7% parent cooperative).

To assess the degree to which these missing data may have introduced bias into the current study, further analyses were conducted by: creating a “missing auspice” variable that distinguished those cases with from those without these data, and then running chi-square and independent sample t-tests comparing the relationship between the “missing auspice” variable and several variables of interest. The findings are presented below in Tables 5 & 6:

Table 5: Chi-Square results comparing differences among valid and missing auspice data and selected variables of interest

Variables of Interest	Valid	Missing	χ^2 (df)	p
Do you think you will still be working at this center one year from now? – Yes/No	2679	1345	.12 (2)	0.73
Do you think you will be promoted within this center? – Yes/No	2639	1319	.27(2)	0.60
Educational Level (some High School – BA or higher)	2617	1304	11.41 (6)	0.08
Approximately what % of total home maintenance costs covered by salary?	2603	1297	2.97 (3)	0.39

¹⁵ Please note: It is expected that the number of missing auspice data within the staff database to be considerably higher as there were multiple staff (e.g., 1- 20+) surveys at each center.

Table 6: Independent Sample T-Tests comparing differences among valid and missing auspice data and selected variables of interest

	Valid Auspice Data		Missing Auspice Data					95% Confidence Interval of the Difference		
Variables of Interest	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>df</u>	<u>t</u>	Mean Difference	Lower	Upper	Cohen's <i>d</i>
How many years total have you worked in the child care field?	3.70	1.42	3.78	1.41	3354	-1.49	-.08	-.18	.03	0.06
On a scale from 1 to 5, how secure do you feel that your current job is?	4.00	0.96	3.89	1.07	2047.63	2.73**	.11	.03	.18	0.11
Gross hourly wage	10.89	3.38	11.69	4.09	1854.11	-5.59**	-.79	-1.07	-.52	0.21
# of hours of unpaid overtime in typical week	1.80	3.17	1.98	3.47	4083	-1.74	-.19	-.40	.02	0.05
Total Co-Worker Satisfaction Score	6.80	1.65	6.66	1.71	3354	2.38*	.15	.03	.27	0.08
Total Supervisor Satisfaction Score	6.52	2.17	6.38	2.26	2104.29	1.64	.14	-.03	.29	0.06
Total Working Environment Score	5.78	1.92	5.60	1.99	2115.49	2.50*	.18	.04	.32	0.09
Total Pay, Benefits, Promotion Satisfaction Score	2.93	1.59	3.00	1.61	3354	-1.29	-.08	-.19	.04	0.04

Note 1: * $p < .05$. ** $p < .01$

Among the majority of selected variables, findings reveal non-significant differences between the two groups (valid vs. missing auspice data). Although non-significant, educational level was *approaching* significance, with the data of *more* educated workers more likely to be missing. Four variables of interest did reveal statistically significant differences. An independent samples t-test comparing the mean gross hourly wages between the two groups found a significant difference between the means ($t(1854.11) = -5.59, p < .01$), with the “valid” group demonstrating a mean hourly wage (\$10.89) of approximately \$0.80 less/hour than that found within the “missing” group (\$11.69). Differences among the two groups were also noted among the “Job Security” variable ($t(2047.63) = 2.73, p < .01$), the “Total Co-Worker Satisfaction” variable ($t(3354) = 2.38, p < .05$), and the “Total Working Environment” variable ($t(2115.49) = 2.50, p < .05$).

Although these findings suggest that further consideration of potential bias is warranted, it should be noted that excessive power might partially explain the statistically significant differences, given the current sample size of 2,743 staff members (Meehl, 1967; Glass & Hopkins, 1984)¹⁶. The impact of the sample size might particularly explain the statistically significant findings noted among the “Job Security,” “Total Co-Worker Satisfaction,” and “Total

¹⁶ As suggested by Glass & Hopkins, sample size can significantly impact the significance of findings: “For example, with $n=10$ and $\alpha = .05$ for a non-directional test, a correlation of .63 is statistically significant; with $n=50$ an $r=.28$ is needed; with $n=100$, an $r=.20$; with $n=500$, an $r=.09$; with $n=1,000$, an $r=.06$; and, with $n=10,000$, an $r=.02$ is statistically significant at the .05 level” (p. 549).

Working Environment” variables, as closer examination reveals minor mean differences between the two groups on these variables--0.11 (on a 5-point scale), 0.15 (on an 8-point scale), and 0.18 (on an 8-point scale) respectively. The Cohen’s *d* calculations also reveal small (i.e., gross hourly wages, *d* = .20) if any (e.g., job security, *d* = .1; co-worker satisfaction, *d* = .08) effects of the missing data on the noted variables of interest. Finally, although sample size may explain these differences, they are differences nonetheless. As such, there exists potential bias introduced as a result of missing data that may potentially impact the conclusions drawn herein (further discussion of this bias offer in the Limitations section of the concluding chapter).

Eligibility for center participation was based on their providing care for at least 12 consecutive months and for at least six consecutive hours/day for children 0-6 years. Center auspices were defined as non-profit (e.g., cooperative centers operated by parents, a voluntary board of directors, or other non-profit organization—YM/YWCA, college, university or school board), commercial or for-profit (e.g., private businesses run by individuals, partnerships, or corporations), or municipal (e.g., operated by the local government). Eligible staff constituted those (teachers, assistant teachers, aides) who had worked at the current center for at least 12 months, worked at least 30 hours/week at the center, and worked with children 6 years of age and under (Goelman, Doherty, Lero, LaGrange, & Tougas, 2000).

SECTION 3: SAMPLING

The original sampling frame for Phase I of the YBIC! study was based on a comprehensive list of childcare centers obtained from each province/territory prior to the start of data collection in December of 1997. In addition to general contact information, the list included data related to the study’s inclusion criteria: age of children serviced, provision of at least six consecutive hours of care, and length of time in operation. Based on this list, centers were excluded for several reasons, to include: (1) failure to meet inclusion criteria, (2) operating multiple sites within a single jurisdiction (as it was thought these centers would have limited variability in relation to operating procedures, wages, benefits, etc.), (3) if they were one of the 15 centers used to pilot test center and staff instruments, and (4) if they were one of the randomly selected centers removed for inclusion in Phase II of the YBIC! study (i.e., 50 centers in six provinces and 14 centers from the Yukon were removed for this purpose). This resulted in an initial sampling frame of 4,699 childcare centers--2,715 non-profit, 1,822 for-profit, and 162 municipal (Goelman, Doherty, Lero, LaGrange, & Tougas, 2000) (see Figure 1).

Following attempts to increase study awareness and participation rates (e.g., announcements in local journals and the use of a lottery that provided the opportunity for three centers, three directors, and three staff members to win \$100, \$100, and \$50 respectively), data collection officially began with a pre-contact letter briefly outlining the proposed research. Center directors were then contacted via phone to determine eligibility, following which with a total of 1,805 centers agreed to participate and 870 declined participation--350 non-profit (40.2%), 504 commercial (57.8%), and 16 municipal (2.0%)¹⁷. As such response rates ranged from 42.2%

¹⁷ The original YBIC! research team conducted a series of chi-square and t-test analyses to explore differences between participating and non-participating centers on several variables of interest. Results indicate no significant differences between the two groups: Center care for children under 18 months ($\chi^2 = .009$, $p=.924$); Center cares for

among commercial and 58.2% among non-profit childcare centers, which were comparable to the 1991 *Caring for A Living Study*, and two of the largest child care studies conducted within the U.S.: *The National Child Care Staffing Study* (Whitebook, Howes & Phillips, 1990) and the *Cost, Quality and Outcomes Study* (Helburn, 1995); the former obtained a response rate of 61%, the latter an average of 52% (range of 32% to 59%).

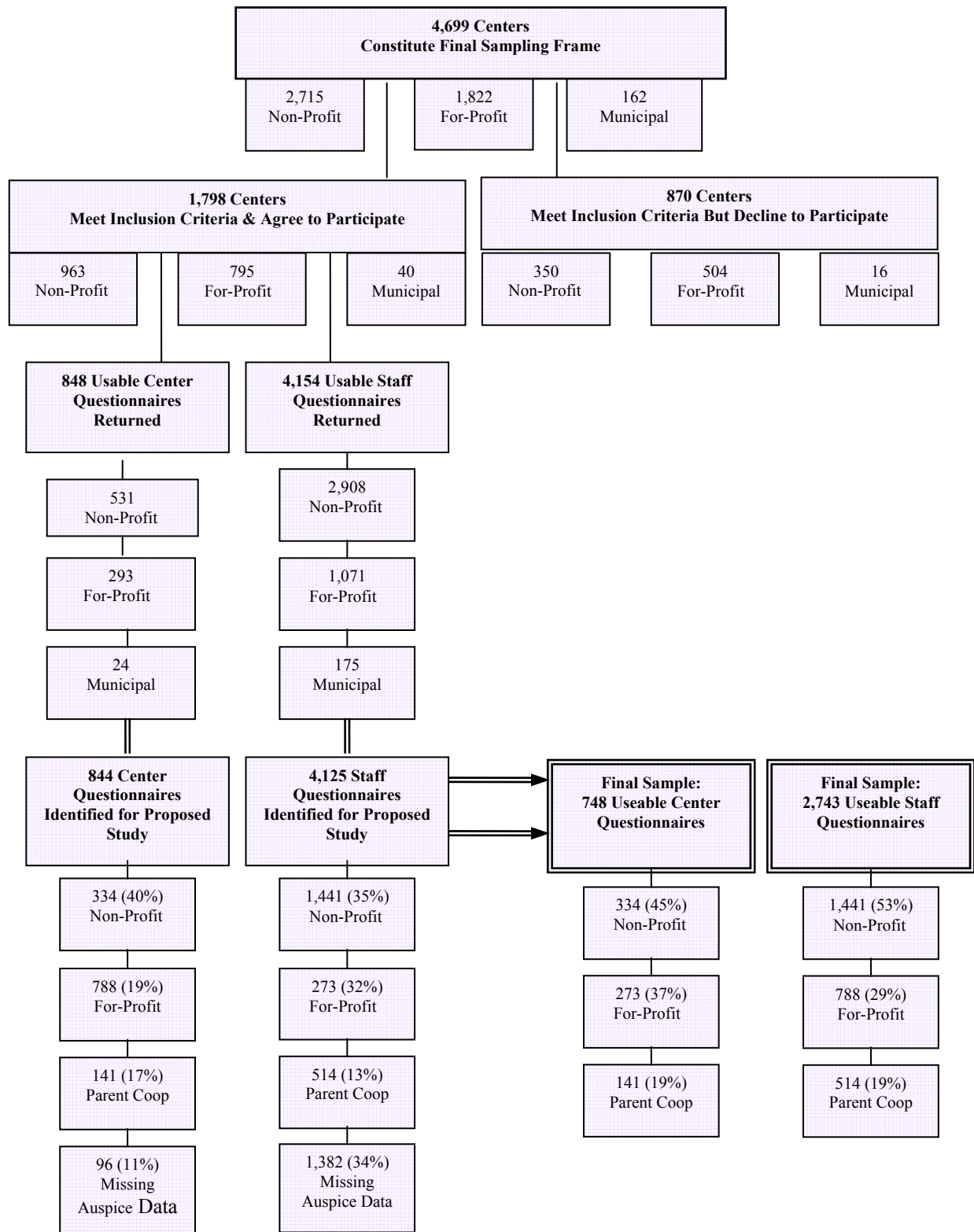
The final study sample was, however, reduced further following the identification of discrepancies between auspice identified in the initial sampling frame and that which was identified on the returned sample, and a failure of 7 centers to actually meet inclusion criteria based on their returned survey data. Due to these exclusions, the final sample constituted a total of 1,796 centers—963 non-profit (of which 251 were identified as parent cooperatives), 795 commercial, and 40 municipal (see Figure 1).

As noted previously, the proposed study will utilize a slightly modified sample. Given the limited number of municipal centers, their noted geographic limitations (i.e., obtained from Ontario *only*), and given the primary aim of the proposed study to explore differences among various work-related indicators and non-profit, for-profit, and cooperative daycare centers, data obtained from the 40 municipal centers will not be included. Also, merging of the center and staff databases resulted in a minor loss in usable data due to missing data on the merge variable (“sitecode”); specifically, 4 (0.47%) centers and 40 (0.96%) staff surveys were deleted due to missing “sitecode” data, resulting in a sample of 844 childcare centers (44.7% non-profit, 36.5% for-profit, and 18.9% parent cooperative) and 4,125 staff surveys (52.5% non-profit, 28.7% for-profit, and 18.7% parent cooperative). However, given that the primary independent variable of interest for the current study is “auspice” (non-profit, for-profit, and parent cooperative), a frequency of this variable identified a total of 96 (11.4%) and 1,382 (33.5%) cases of missing auspice data within the center and staff databases respectively¹⁸. This further reduced the overall final sample to 748 childcare centers (44.7% non-profit, 36.5% for-profit, and 18.9% parent cooperative) and 2,743 staff surveys (52.5% non-profit, 28.7% for-profit, and 18.7% parent cooperative) (please see Figure 1 below).

children 18 months-3 years ($\chi^2 = .209$, $p=.648$); Number of years the center has operated ($t=.090$, $p>.05$); Mean number of paid teaching staff ($t=.950$, $p>.05$) (Doherty, Lero, Goelman, LaGrange, & Tougas, 2000, p. 18).

¹⁸ Please note: It is expected that the number of missing auspice data within the staff database to be considerably higher as there were multiple staff (e.g., 1- 20+) surveys at each center.

Figure 1: Study Sample



SECTION 4: OPERATIONALIZATION OF CONCEPTS & ASSOCIATED MEASURES

To assess potential differences between non-profit, for-profit, and cooperative childcare centers, the variables outlined in Table 7 (below) were explored. Each variable will be explained in detail to follow.

Table 7: Primary Variables of Interest

Aspects of Child Care Program	Independent Variable	Control Variables	Dependent Variables/Outcomes of Interest
What Was Measured	Auspice	Teacher education level Teacher age # of years at current center # of years in childcare	Nature of the work Staff wages & benefits Union membership Presence & frequency of staff meetings Work Environment Perceptions regarding the childcare field Opportunities for advancement/professional development Co-Worker satisfaction Supervisory satisfaction Workplace social capital Degree of centralization Degree of formalization Turnover/Intentions to leave Job Stability
Data Collection Instrument	Center Questionnaire	Staff Questionnaires	Staff Questionnaires

Note 1: Prior to Phase 1, the Staff and Center questionnaires (in addition to a Director questionnaire) were subject to pilot testing within 15 centers in 6 provinces (Alberta, British Columbia, Manitoba, Ontario, New Brunswick and Québec). Necessary revisions were made prior to the initiation of the study [please see Doherty, Lero, Goelman, LaGrange & Tougas (2000), Appendix A (p., 181-196) for the final Staff Questionnaire and Appendix C (p., 211-225) for the final Center Questionnaire].

Note 2: In the following sections item numbers from each of the respective surveys related to the variable of interest will be included in the text. For example, item A1 from the Staff Questionnaire will be annotated as follows: [A1sq].

4.1. Independent variable

The primary independent variable of interest is auspice, which was defined within the center questionnaire as non-profit (e.g., cooperative centers operated by parents, a voluntary board of directors, or other non-profit organization—YM/YWCA, college, university or school board), commercial or for-profit (e.g., private businesses run by individuals, partnerships, or corporations), or municipal (e.g., operated by the local government). Due to the small sample size and geographic limitations (i.e., obtained only in Ontario), municipal centers will not be analyzed. For analysis purposes, included data have been recoded according to the following categories: for-profit, non-profit (non-cooperative), and parent cooperatives¹⁹.

4.2. Dependent variables/Outcomes of interest

The primary outcomes of interest for the proposed study are several labor-related indicators among staff²⁰, to include: nature of the work; wages and benefits; union membership; presence and frequency of staff meetings; perceptions and recommendations concerning the childcare field; opportunities for advancement/professional development; co-worker and supervisory relationships; level of workplace social capital; levels of formalization and centralization; perceptions of work environment; and, turnover/intentions to leave and job stability.

Nature of the work. Responses to the following staff survey item were analyzed: [D1sq] “In your opinion, what are the three most *positive* aspects of working in the childcare field? Write in the three that are most important to you.” Responses to each of these items were coded by the original YBIC! research team into 11 possible categories (see table 8 below). The majority of for-profit (83.1%), non-profit (79.4%), and cooperative (81.0%) employees indicated that the *nature of the work* was the *most positive* aspect of working in the childcare field. A chi-square test of independence was calculated to compare frequency of responses by auspice. A significant relationship was *not* found (χ^2 (10) = 10.42, $p=.41$), indicating that responses regarding the most positive aspect of working in the childcare field are independent of auspice. In order to focus on the most significantly noted positive aspect of working in the childcare field, this variable was further collapsed into the following two categories: “nature of the work” (constituting 72.4% of responses) and “other” (16.3%). A new variable, entitled “Positive Aspect of the Field—Nature of the Work vs. Other,” was thus created and was utilized in subsequent multivariate analyses.

¹⁹ Please note that Canadian “parent cooperatives” are a distinct organizational form from that found within the United States. That is, parent coops in Canada offer full-day, childcare five days/week provided by paid directors and staff members; parents are invited to serve on the board of directors and provide volunteer time/services). In contrast, the parent cooperative model most often utilized within the United States largely provides half-day, part-time (e.g., 3 days/week) care provided, primarily—by unpaid parents/guardians.

²⁰ Throughout the entire document the terms teacher(s), employee(s), or staff refer to all staff other than center directors who provide direct care to children.

Table 8: Response Categories for the “Three Most Positive Aspects of Working in the Childcare Field”

	Indicators
In your opinion, what are the three most <u>positive</u> aspects of working in the childcare field?	<input type="checkbox"/> Co-Workers <input type="checkbox"/> Superiors <input type="checkbox"/> Parents <input type="checkbox"/> Respect <input type="checkbox"/> Nature of the work <input type="checkbox"/> Motivation <input type="checkbox"/> Dealings with society and government <input type="checkbox"/> Personal and professional development <input type="checkbox"/> Working conditions <input type="checkbox"/> Pay and promotion opportunities <input type="checkbox"/> Other

Wages and benefits. Staff were asked to summarize their feelings regarding wages and benefits, and opportunities for advancement, by selecting as many of the indicators that apply (please see Table 9 below). Each of the identified indicators was summed to obtain a “Total pay, benefit, and promotion satisfaction score” ranging from 0 (no satisfaction) to 7 (high satisfaction), the overall internal consistency of which was explored via categorical principal component analysis (CATPCA). CATPCA analyses (please see Appendix I for a complete summary of results) revealed that the original 7-item “pay, benefits, and promotion scale” accurately and efficiently assessed satisfaction with pay/benefits, vacation time, and promotion opportunities. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .516 to .771--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for the greatest variance (100%), the original 7-item composite score was selected for use in all subsequent analyses.

Table 9: Indicators for Feelings Regarding Pay/Benefits/Promotional Opportunities

	Indicators
Feeling regarding pay, benefits, and promotion opportunities [E4sq]	<input type="checkbox"/> My pay is fair considering my background and skills <input type="checkbox"/> My pay is fair compared with what other centers pay <input type="checkbox"/> My salary does not adequately reflect the work I do <input type="checkbox"/> I have enough time off for vacations <input type="checkbox"/> My benefits are inadequate <input type="checkbox"/> I am not progression in my job as rapidly as I would like <input type="checkbox"/> Chances for promotion are good

Four additional items (please see Table 10 below) were also analyzed to determined specifically the number of unpaid overtime hours, net pay, potential changes in annual salary, the percentage of total household costs covered by salary, and changes in benefits.

Table 10: Items concerning wages & benefits

Item #	Item Wording
A7 - Staff	# of hours of unpaid overtime per week
B4 – Staff	Excluding paid overtime, what is your total take-home pay <i>after</i> deductions and taxes?
B8 – Staff	In the past two years has your annual salary: remained the same, increased, or decreased?
H9 – Staff	Approximately what percentage of the total cost of maintaining your household is covered by your salary? On a scale ranging from 1 (80-100%) to 4 (25% or less).
B10 – Staff	In the past two years have the benefits at your center: remained the same, improved, declined, don't know if there have been changes.

Union membership. The following item was used to assess union membership: "Are you represented by a union? (Yes, no, don't know)". The total number and overall percentage of each category will be calculated.

Staff meetings. The presence and frequency of staff meetings is reported based on responses to the following survey item [A8sq]: "How often does your center have scheduled meetings of all the teaching staff: never, less than once a month, once a month, twice a month, three times a month, four times a month, more than four times a month." Response categories were collapsed and the number and overall percentage of center staff meetings is reported as follows: never, less than once/month, 1-2 times/month, 3 or more times/month. In addition, whether or not attendance at staff meetings was compensated was assessed via the following [A9sq]: "Is your attendance at staff meetings: during your regular paid scheduled workday, paid overtime, unpaid overtime?"

Perceptions of work environment. In order to assess overall perceptions of the work environment two items were explored. The first item [E3sq] asked staff to assess their feelings regarding the work environment, by selecting as many of the indicators that apply (please see Table 11 below). The original YBIC! research team obtained an "Overall Work Environment Satisfaction Score," by first recoding necessary items (3,4,5,6), then summing all indicators to obtain a total score ranging from 0 (no work environment satisfaction) to 8 (high level of work environment satisfaction). Although not originally explored by the YBIC! team, the overall internal consistency of this scaled score was also explored via categorical principal component analysis for the current research. CATPCA analyses (please see Appendix I for a complete summary of results) revealed that the original 8-item "satisfaction with work environment" scale accurately and efficiently assessed satisfaction with the work environment with respect to the following dimensions: pleasantness of the center, ability to find needed materials, availability of equipment and materials needed to perform job, private space for breaks/conversations, and personal storage space. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .514 to .661--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for the greatest variance (100%), the original 8-item composite score was selected for use in all subsequent analyses.

Table 11: Indicators Regarding Perceptions of Work Environment

	Indicators
Feelings regarding work environment [E3sq]	<ul style="list-style-type: none"><input type="checkbox"/> The center is a bright and attractive place to be in<input type="checkbox"/> I always know where to find the things I need<input type="checkbox"/> I need some new equipment and materials to do my job well<input type="checkbox"/> We need a separate room where staff can relax during breaks<input type="checkbox"/> I can't find a place to carry on a private conversation<input type="checkbox"/> It is too noisy<input type="checkbox"/> The conditions meet my standards of cleanliness<input type="checkbox"/> Teachers have a place to store personal belongings

The second item [E5sq] asked staff to “fill in each box that best reflects how each statement describes your feelings about your work situation most of the time,” on a 5-point Likert scale ranging from (1) “Never or Not at All” to (5) “Usually/Feel Strongly” (please see Table 12 below). The data were first recoded to account for several reverse-coded items (2,4,5,8,12), following which the overall scale was recoded ranging from (0) “Never or Not at All” to (4) “Usually/Feel Strongly,” with a total possible “feelings about your work situation score,” from 0 (no satisfaction) to 56 (high level of satisfaction with work situation). Although not originally explored by the YBIC! team, the overall internal consistency of this scaled score was also explored via categorical principal component analysis for the current research. CATPCA analyses (please see Appendix I for a complete summary of results) revealed that the original 14-item “satisfaction with work situation” scale accurately and efficiently assessed satisfaction with the work situation, with respect to the following dimensions: physical & emotional aspects of work, sense of pride/accomplishment in center and work, adequate time to perform duties, positive impact in lives of children, feelings regarding center and position, and feelings regarding the care the center provides to children and families. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .396 to .762--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for the greatest variance (100%) in work situation, the original 14-item composite score was selected for use in all subsequent analyses.

Table 12: Indicators Regarding Perceptions of Work Situation

	Indicators
Feelings regarding work situation [E5sq]	<input type="checkbox"/> The work I do is stimulating and challenging <input type="checkbox"/> I feel physically exhausted at the end of the work day <input type="checkbox"/> My work gives me a sense of accomplishment <input type="checkbox"/> There is too little time to do all that needs to be done <input type="checkbox"/> I feel emotionally drained at the end of the day <input type="checkbox"/> I make a positive difference in the children's lives <input type="checkbox"/> Center policies and procedures are well-defined <input type="checkbox"/> I feel frustrated by this job <input type="checkbox"/> I have reasonable control over most things that affect my satisfaction with my job <input type="checkbox"/> I feel my job makes good use of my skills and abilities <input type="checkbox"/> I take pride in my center <input type="checkbox"/> I know the center could be providing better service, but there is nothing I can do about it <input type="checkbox"/> My center provides a well-rounded program for the children who attend <input type="checkbox"/> My center really supports the families of the children that attend

Perceptions and recommendations concerning the childcare field. Responses to the following staff survey item were analyzed: “In your opinion, what are the three most *negative* aspect of working in the childcare field? Write in the three aspects you feel are most negative.” Responses to each of these items have already been analyzed and coded into 11 possible categories (see table 13 below).

Table 13: Response Categories for the “Three Most Negative Aspects of Working in the Childcare Field”

	Indicators
In your opinion, what are the three most <i>negative</i> aspects of working in the childcare field?	<input type="checkbox"/> Co-Workers <input type="checkbox"/> Superiors <input type="checkbox"/> Parents <input type="checkbox"/> Respect <input type="checkbox"/> Nature of the work <input type="checkbox"/> Motivation <input type="checkbox"/> Dealings with society and government <input type="checkbox"/> Personal and professional development <input type="checkbox"/> Working conditions <input type="checkbox"/> Pay and promotion opportunities <input type="checkbox"/> Other

In addition, the following questions concerning staff perceptions of the field were also included: [D7sq] “Do you think you would need to leave the child care field in order to earn more money or achieve a higher status position (yes, no);” and, [D9sq] “In your opinion, which of the following groups generally respect you as a child care professional (indicate ALL that apply): your own family, the families of the children in your center, other people working in the child care field, professionals in other fields, your friends, the public at large, other groups (please specify), no groups.”

Staff were also asked: “If you were choosing a career now, would you choose child care? “No, why not? Yes, Why? Don’t know.” Given that the qualitative, elaborative responses were not analyzed within the current dataset, only the overall number and percentage for each category is analyzed and reported. Recommendations for the childcare field were obtained from the following staff survey item [J1sq]: “How helpful do you believe each of the items below would be in making the child care field more satisfying to work in, on a 3-point scale ranging from (1) would not help at all to (3) would help a lot (please see Table 14 below).”

Table 14: Recommendations for the childcare field

	Would not help at all	Would help somewhat	Would help a lot
Providing a better salary			
Improving benefits			
Providing staff with greater decision-making role in caring for the children			
Promoting more respect for people working in child care			
Providing more support services to center caring for children with special needs or challenging behavior			
Reducing the number of child per teacher			
Reducing the number of children per teacher			
Providing regular breaks away from the children during the work day			
Providing regularly scheduled (not overtime) preparation time			
Providing regularly scheduled time to communicate with parents			
Providing affordable opportunities for continuing education			
Establishing a career ladder			
Other, please specify:			

Opportunities for advancement/professional development. Several items were explored to assess opportunities for advancement and professional development, to include: [D5sq] “Do you think you will be promoted within this center;” [D6sq] “Do you think you could earn more money or achieve a higher status position if you moved to another center;” and, [G1] “Have you participated in any professional development activities during the past twelve months, for example a conference, workshop or course?”

More specific details regarding the *type* of professional development activities involved in and whether (and what type) of assistance was provided by the center to facilitate attendance were also examined via the following two items: [G2sq] “What types of professional development did you participate in during the past 12 months (i.e., conference, workshop, credit course at a post-secondary institution, non-credit course at a post-secondary institution, other in service training, other)?”; and, [G3sq] Did the centre provide any of the following types of assistance to enable you to participate in any of these activities (payment of registration fee, provision of un-paid release time, provision of *paid* release time, none of the above)?”

In addition, within the overall “Satisfaction with pay, benefits, and promotion opportunities” section [E4sq—as presented in Table 6 above], the following two promotion opportunity-related items were explored: (1) “I am not progressing in my job as rapidly as I would like” (yes, no), and (2) “Chances for promotion are good (yes, no).”

Co-worker relationship satisfaction. Relationships with co-workers was assessed via the following staff survey item (please see Table 15 below):

Table 15: Satisfaction with Co-worker Relationships

[E1sq] Indicate ALL of the following that describe how you feel about your relationship with most of your co-workers most of the time.
<input type="checkbox"/> My colleagues support and encourage me <input type="checkbox"/> I enjoy the company of my colleagues <input type="checkbox"/> My colleagues are hard to get to know <input type="checkbox"/> My colleagues share personal concerns with me <input type="checkbox"/> My colleagues are critical of my performance <input type="checkbox"/> I feel I can't trust my colleagues <input type="checkbox"/> My colleagues are not very helpful <input type="checkbox"/> My colleagues share ideas and resources

An “Overall Co-Worker Satisfaction Score” was originally obtained by the YBIC! research team by first recoding necessary items (3,5,6,7), then summing all indicators to obtain a total score ranging from 0 (no support) to 8 (high-level of support). The overall internal consistency of this scaled score was explored via categorical principal component analysis. CATPCA analyses (please see Appendix I for a complete summary of results) revealed that the original 8-item “co-worker relationship satisfaction” scale accurately and efficiently assessed satisfaction with co-worker relationships, with respect to the following dimensions: overall relationship quality and trust. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .584 to .777--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for the greatest variance (100%), the original 8-item composite score was selected for use in all subsequent analyses.

Supervisory relationship satisfaction. Staff were asked to assess their feelings regarding the quality of the relationship with supervisors, by selecting as many of the following indicators that apply (see Table 16 below). An “Overall Supervisor Satisfaction Score” was originally calculated by the YBIC! research team by first recoding necessary items (2,5,7,9), then summing all indicators to obtain a total score ranging from 0 (no support) to 9 (high-level of support). Again, although not originally explored by the YBIC! team, the overall internal consistency of this scaled score was explored via categorical principal component analysis. CATPCA analyses (please see Appendix I for a complete summary of results) revealed that the original 9-item “supervisory relationship satisfaction” scale accurately and efficiently assessed satisfaction with supervisory relationships, with respect to the following dimensions: overall relationship quality, supervision style, goal setting, and availability. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .582 to .762--Linting, Meulman, Goenen, &

van der Kooij, 2007), and the model accounted for the greatest variance (100%), the original 9-item composite score was selected for use in all subsequent analyses.

Table 16: Satisfaction with Supervisory Relationships

[E2sq] Indicate ALL of the following that describe how you feel about your relationship with the person who supervises you. My supervisor	
<input type="checkbox"/>	Encourages me to try new ideas
<input type="checkbox"/>	Supervises me to closely
<input type="checkbox"/>	Provides support and helpful feedback
<input type="checkbox"/>	Sets high but realistic standards
<input type="checkbox"/>	Makes me feel inadequate
<input type="checkbox"/>	Trusts my judgment
<input type="checkbox"/>	Is unavailable
<input type="checkbox"/>	Appreciates the difficulties of balancing work and family responsibilities
<input type="checkbox"/>	Is hard to please

Workplace social capital. Although the YBIC! study did *not* formally designate items to assess workplace social capital, there are several items from the previous “Overall Satisfaction with Co-Workers” and “Overall Supervisor Satisfaction Score” that will be combined to do so. Utilizing Kouvonen and colleagues (2006, 2008) psychometrically validated (Alpha = .88) measure of workplace social capital as a template, the following items were selected from items [E1sq] and [E2sq] for inclusion in the “Workplace social capital Index” (Table 17 below):

Table 17: Workplace social capital index

Kouvonen et al. (2006, 2008) social capital items:	[E1sq] & [E2sq] social capital-related items
1. Our supervisor treats us with kindness and consideration.	1. My supervisor provides support and helpful feedback.
2. Our supervisor shows concerns for our rights as an employee.	2. My supervisor trusts my judgment.
3. We have a ‘we are together’ attitude.	3. My colleagues are not very helpful
4. People keep each other informed about work-related issues in the work unit.	4. My colleagues share ideas and resources.
5. People feel understood and accepted by each other.	5. My colleagues support and encourage me.
6. Do members of the work unit build on each other’s ideas in order to achieve the best possible outcome?	6. My colleagues are hard to get to know.
7. People in the work unit cooperate in order to help develop and apply new ideas.	7. My colleagues are critical of my performance.
8. We can trust our supervisor.	8. I feel I can’t trust my colleagues.

Although the researcher is aware that there does not exist a clear one-to-one mapping of the selected items to those provided by Kouvonen and colleagues (2006, 2008), it does appear that the fundamental social-capital related domains of trust and relationship establishment are represented in the afore noted items. Utilizing the exact re-coding strategy²¹ implemented by the

²¹ The researcher is aware that the coding of items as “.” is typically used to designate missing data. However, for this and like scaled items (i.e., Pay, Benefits and Promotion Satisfaction Score, Working Environment Satisfaction Score, Supervisor Satisfaction Score, and Co-Worker Satisfaction Score) the original YBIC! research team utilized the “.” to indicate that the item was “not checked”—meaning that particular items was not descriptive

original YBIC! research team in obtaining, for example, the similarly coded “Total Co-Worker Satisfaction Score,” survey responses originally coded as “.” indicating “not checked” were re-coded to a “0,” thus allowing for subsequent ease of re-coding and overall summing. All responses originally coded as “1” indicating “checked” remained the same. Necessary items were then reverse coded (3,6,7,8), and all items were summed to obtain a “total social capital score” ranging from a “0” (no social capital) to “8” (high level of social capital). The overall internal consistency of this scaled score was explored via principal component analysis. CATPCA analyses (please see Appendix I for a complete summary of results) revealed that the original 8-item “workplace social capital” scale accurately and efficiently assessed workplace social capital with respect to the colleagues and supervisors. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .610 to .761--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for a significant amount of variance (94.91%), the original 8-item composite score was selected for use in all subsequent analyses.

Degree of formalization and centralization. To assess the degree of formalization, one question from the staff questionnaire was explored [B9sq]. Of the 10 total possible response options (to be “checked” or not), the following six (6) were selected (please see Table 18 below):

Table 18: Indicators of the Degree of Formalization

	Indicators
Formalization [B9sq]	<input type="checkbox"/> Teaching staff have written job descriptions <input type="checkbox"/> Teaching staff have written job contracts <input type="checkbox"/> There is a written salary schedule <input type="checkbox"/> There is a staff manual outlining staff policies <input type="checkbox"/> Teaching staff receive regular written job performance appraisals <input type="checkbox"/> There is a formal grievance procedure

Again, utilizing the same re-coding strategy originally implemented by the YBIC! research team (please see footnote #3), a “total degree of formalization score” was calculated. Survey responses originally coded as “.” indicating “not checked” will be re-coded to a “0,” thus allowing for subsequent ease of re-coding and overall summing. All responses originally coded as “1” indicating “checked” remained the same. Once recoded, all items were summed to obtain a “degree of formalization score” ranging from 0 (no formalization) to 6 (high degree of formalization). The overall internal consistency of this scaled score was explored via principal component analysis. CATPCA analyses (please see Appendix I for further detail) revealed that the original 6-item “degree of formalization” scale accurately and efficiently assessed formalization practices with respect to formal/written policies and procedures and availability of staff manual outlining said policies. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .639 to .701--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for a significant amount of variance (100%), the original 6-item composite score was selected for use in all subsequent analyses.

of their work environment, co-worker relationship, etc. Given that a non-checked item (coded as “.”) is, therefore, a valid data response, the re-coding of the “.” designation to a “0” for the purposes of subsequent summing of a total score is undertaken with confidence that doing so does not misrepresent the data.

To assess the degree of centralization, two questions on the staff questionnaire were explored. The initial question [E6sq] explores the ways in which decision-making is handled at each center. Survey responses originally coded as “.” indicating “not checked” were re-coded to a “0,” thus allowing for subsequent ease of re-coding and overall summing. All responses originally coded as “1” indicating “checked” remained the same. Once recoded, all items were summed to obtain a “degree of centralized decision making score,” ranging from 0 (no centralized decision making) to 8 (high degree of centralized decision making). The overall internal consistency of this scaled score was explored via principal component analysis. CATPCA analyses (please see Appendix I for a complete summary of results) revealed that the original 8-item “degree of centralization” scale accurately and efficiently assessed centralization with respect to (i) overall input regarding decision-making and (ii) teacher decision-making regarding things that directly affect them. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .595 to .729--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for a significant amount of variance (0100%), the original 8-item composite score was selected for use in all subsequent analyses. Also, an alpha of .802 was obtained for the original 8-item scale, which is considered “good” by most accounts (DeVellis, 1991; George & Mallery, 2003; Hair, Anderson, Tatham & Black, 1998).

The second question [E7sq] asked staff to indicate how much influence they “currently have” in each of the following areas on a 3-point scale ranging from (1) very little to (3) considerable influence. The data were summed to obtain a total possible “organizational influence score,” ranging from 7 (very little influence) to 21 (considerable influence) (please see Table 19 below). The overall internal consistency of this scaled score was explored via principal component analysis. CATPCA analyses (please see Appendix I for a complete summary of results) revealed that the original 7-item “influence over organizational actions and decisions” scale accurately and efficiently assessed influence over organizational actions/decision, particularly with respect to: (i) overall decisional influence and (ii) planning of daily schedule of activities. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .645 to .781--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for the greatest variance (100%), the original 7-item composite score was selected for use in all subsequent analyses.

Table 19: Indicators of the Degree of Centralization

	Indicators
Centralization - Decision making [E6sq]	<input type="checkbox"/> People are encouraged to be self-sufficient in making decisions <input type="checkbox"/> The director likes to make most of the decisions <input type="checkbox"/> People don't feel free to express their opinions <input type="checkbox"/> Everyone provides input on the content of staff meetings <input type="checkbox"/> People provide input but the decisions have already been made <input type="checkbox"/> Teachers make decisions about things that directly affect them <input type="checkbox"/> Teachers are seldom asked their opinions on issues <input type="checkbox"/> The director values everyone's input for major decisions

Centralization – Influence over organizational decisions and actions [E7sq]	<input type="checkbox"/> Ordering materials and supplies <input type="checkbox"/> Determining program objectives <input type="checkbox"/> Orientation of new teachers <input type="checkbox"/> Planning the daily schedule of activities <input type="checkbox"/> Developing or changing policies <input type="checkbox"/> Influencing how procedures are developing or determined
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Turnover/Intentions to Leave and Job Stability. The following two staff survey items were used to assess turnover/intentions to leave. Staff were asked: “Do you think you will still be working at this center one year from now?” The response options were “No or probably not. Why Not?” or “Yes.” In addition, qualitative response options for the “No or probably not—why” option have already been analyzed and grouped into the following categories (please see Table 20 below).

Table 20: Response Categories Regarding “Why Staff Will (Likely) Not be Working at the Same Center in 1 Yr.

	Indicators
Do you think you will be working at this center one year from now? No or probably not—Why?	<input type="checkbox"/> Low wages <input type="checkbox"/> Burnout/stress <input type="checkbox"/> Family reasons <input type="checkbox"/> Prefer public schools <input type="checkbox"/> Want a career change <input type="checkbox"/> Back to school <input type="checkbox"/> Retirement <input type="checkbox"/> Because of a move <input type="checkbox"/> Center may close <input type="checkbox"/> Opening my own center <input type="checkbox"/> Other

Respondents were also asked [D10sq]: “Do you expect to be working in the field of childcare three years from now?” Response options included: “No, why not?” or “Yes.” In addition, qualitative responses to the “No, why not?” category have already been analyzed and grouped into the following categories (please see Table 21 below):

Table 21: Response Categories - Why Staff do Not Anticipate Working in the Childcare Field in Three Years

	Indicators
If no, why? [D10sq]	<input type="checkbox"/> Low wages <input type="checkbox"/> Burnout/stress <input type="checkbox"/> Family reasons <input type="checkbox"/> Prefer working in public schools <input type="checkbox"/> Want a career change <input type="checkbox"/> Back to school <input type="checkbox"/> Retirement <input type="checkbox"/> Other

Finally, one item [E9sq] was utilized to assess job stability. Staff were asked: “On a scale from 1 (not at all secure) to 5 (very secure), how secure do you feel that your current job is?”

4.3. Control Variables

To explore potential differences between the adult work environment and childcare auspices, several individual/personal factors²² were controlled for in the current research (please see Table 22 below), specifically: teacher education level, teacher age, number of years at current center, and number of years in the childcare field. To assess education level, teachers were asked to indicate the highest level of education completed in any subject area [F1sq]. Responses were grouped into the following categories: high school or less, some post-secondary/no degree, and bachelor’s degree or more. Teacher age [H2sq] was assessed by asking respondents their age at last birthday, based on the following categories: <20, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50+; responses were recoded into the following categories: 24 and under, 25-34, 35-44, and 45+. Respondents were also asked, in years and months, how long they had worked at this center [A12sq], and how many years total they had worked in the child care field [A15sq]: less than one year, 1-3 years, 3-5 years, 5-10 years, 10-15 years, 15+ years. Both years at current center and years in childcare were recoded into the following categories: less than 1 to three years, 3 – 10 years, and 10+ years.

Table 22: Control Variables

	Indicators
Individual/Personal Factors	<input type="checkbox"/> Level of teacher education <input type="checkbox"/> Teacher age <input type="checkbox"/> # of years at current center <input type="checkbox"/> # of years in childcare

4.4. Data Structure Issues

As outlined, the majority of variables analyzed herein occur at the individual level, with the inclusion of organizational fixed-effects by virtue of the auspice dummy variable (for-profit, non-profit, coop). It should be noted that the inclusion of mixed units of analysis does, however, introduce some model imperfection given that an assessment of the influence of organizational-level is *not* possible due to the merging difficulties noted in *Section 3: Sampling*. That is, an assessment of the unique influence of *each* of the for-profit, non-profit, and cooperative centers is not possible given the configuration of the current dataset (i.e., lacking site-specific data). Previous research within this area has also yet to explore organizational-level influence—as part of a larger hierarchical linear modeling (LHM) analysis approach—particularly in relation to potential differences among for-profit, non-profit, and cooperative childcare labor conditions (e.g., Cleveland, 2008; Cleveland & Krashinsky, 2009; Doherty, Friendly, & Forer, B., 2002; Doherty, Lero, Goelman, LaGrange, & Tougas, 2000; Goelman, Forer, Kershaw, Doherty, Lero & LaGrange, 2006). As such there exists some level of conceptual un-clarity within the field

²² Although the researcher had anticipated also exploring differences based on the sex of the teacher, the sample of males was too small (N=13) to do so.

more generally. Given the constraints of the current data, I do, however, attempt to account for this limitation by employing an auspice fixed-effects model of analysis, with the expectation that these findings are offered as an exploratory, descriptive account of childcare labor conditions. Future research, should, however attempt to further this area of research by collecting and analyzing organizational-level effects via, for example, HLM.

SECTION 5: PROCEDURES/DATA COLLECTION TECHNIQUES

Data collection for Phase I began at the end of May 1998 and was finalized with the close of data entry late August 1998. Following the determination of a center's eligibility and consent to participate, all directors were sent a package containing several items, including: a thank you letter; a brief study description; center, director, and sufficient staff questionnaires, stamped return envelopes for all questionnaires; and, center and staff consent forms (Goelman, Doherty, Lero, LaGrange, & Tougas, 2000, p. 16). The director of the center completed both the director and center questionnaires, while teaching staff (defined as those working with children 0-6 years, working at least 30 hours/week, and an employee of the center for at least 12 months) completed the staff questionnaires. To ensure confidentiality, participants were not required to include their names on the survey. Also, surveys were not submitted through the director, for example, but rather staff were provided a stamped envelope and mailed it directly to the study center at the University of British Columbia (Goelman, Doherty, Lero, LaGrange, & Tougas, 2000).

Once surveys were received, the majority of the data were scanned into data files, with the remaining few entered manually. In the event of missing data, most were coded as "missing;" however, on occasion estimates or imputed values were utilized. For example, "in analyses of the number of teaching staff where reports of the number of male and female teaching staff could substitute for a missing response to the question about total number of staff" (Goelman, Doherty, Lero, LaGrange, & Tougas, 2000, p. 16).

Also, in order to compare potential differences in those centers electing to participate as compared to those declining participation, three questions were asked during the telephone screening concerning the following: the age of the children served, years in operation, and the average number of paid teaching staff. Chi-square analyses revealed no significant difference between participating and non-participating centers on each of these indicators (Goelman, Doherty, Lero, LaGrange, & Tougas, 2000, p. 18).

SECTION 6: ANALYSIS PLAN

Research Questions 1 & 2: To assess research questions 1 & 2, descriptive analyses concerning each of the variables of interest were conducted to include: prevalence (%), means, standard deviations, chi-square, and ANOVAs.

Research Question 3: The third research question explored the extent to which various labor conditions (e.g., gross hourly wages) predicted turnover/intentions to leave and level of job

stability, controlling for the nature of the work, co-worker and supervisory relationships, workplace social capital²³, decision-making practices, and quality of the work situation^{24,25}.

Logistic regressions were conducted to determine the relationship between labor conditions (i.e., wages, pay/benefit/promotion satisfaction, unionization, promotion opportunities, and professional development participation) and employees' intentions to remain (i) at the current center in the coming year and (ii) within the childcare field in the coming three years, controlling for employee perceptions regarding the nature of the work, co-worker and supervisory relationship satisfaction, degrees of centralization and formalization, organizational influence, and overall work situation and work environment satisfaction. With each outcome, a series of two models was explored²⁶: (i) the first included wages, pay/benefit/promotion satisfaction, unionization, promotion opportunities, and professional development participation; and, (ii) the

²³ Workplace social capital was dropped from this model do to concerns regarding multicollinearity—please see Appendix J for further detail.

²⁴ To follow is the model utilized in each of the full logistic models for research question 3 (excluding potential interaction terms):

$$Y = A + B(X_1) + B(X_2) + B(X_3) + B(X_4) + B(X_5) + B(X_6) + B(X_7) + B(X_8) + B(X_9) + B(X_{10}) + B(X_{11}) + B(X_{12}) + B(X_{13}), \text{where:}$$

- B(X₁) = Gross Hourly Wages (original continuous coding retained);
- B(X₂) = Total Pay/Benefit/Promotion Satisfaction Score (original continuous coding retained);
- B(X₃) = Union Representation (original binary coding—0-no, 1-yes—retained);
- B(X₄) = Promotion Opportunities (original binary coding—0-no, 1-yes—retained);
- B(X₅) = Professional Development Opportunities (original binary coding—0-no, 1-yes—retained);
- B(X₆) = Nature of the Work (by coding Nature of the Work as 1 and everyone else as 0);
- B(X₇) = Co-Worker Relationship Satisfaction (original continuous coding retained);
- B(X₈) = Supervisory Relationship Satisfaction (original continuous coding retained);
- B(X₉) = Degree of Centralization (original continuous coding retained);
- B(X₁₀) = Degree of Formalization (original continuous coding retained);
- B(X₁₁) = Influence Over Organizational Decisions & Actions (original continuous coding retained);
- B(X₁₂) = Feeling Regarding Work Situation (original continuous coding retained); and,
- B(X₁₃) = Work Environment Satisfaction (original continuous coding retained).

²⁵ Prior to running each of the logistic regressions, model diagnostic were undertaken to assess the linearity of the logit, possible multicollinearity, and potentially influential cases (outliers). In so doing, the Hosmer and Lameshow Test (i.e., non-significant result) and the Nagelkerke R^2 values were examined to asses model fit, a correlation matrix was assessed to ensure that r values were no greater than .8, that adequate multicollinearity diagnostics were attained, and Cook's distance values close to 1.0 (i.e., indicating a lack of overly influential cases). Given that co-worker satisfaction and workplace social capital scores were highly correlated ($r = .83$), the tolerance level for workplace social capital was somewhat lower than preferred (tolerance = .13, value < .1 of concern), and the Variance Inflation factor was relatively high (VIF = 8.08; ideally less than 5 and no greater than 10) (Kutner, Nachtsheim & Neter, 2004), workplace social capital was *not* included in subsequent analyses. All other model diagnostic criteria were met. Finally, please reference Appendix K for a compilation of mean/frequency and inter-correlation tables for each of the following logistic and multiple regression.

²⁶ Also, given concerns regarding multi-collinearity a third model was undertaken to confirm the robustness of the coefficients by removing non-significant items, with no significant changes in direction and magnitude noted.

second added eight additional factors accounting for the control variables (e.g., organizational influence).

In the case of job stability, a multiple regression model—adding blocks conceptually—was carried out to determine the relationship between labor conditions (i.e., wages, pay/benefit/promotion satisfaction, unionization, promotion opportunities, and professional development participation) and level of job stability, controlling for employee perceptions regarding the nature of the work, co-worker and supervisory relationship satisfaction, degrees of centralization and formalization, organizational influence, and overall work situation and work environment satisfaction²⁷. Given the noted presence of heteroscedasticity (greater detail provided in section 3.3), the Hayes-Cai SPSS Macro (Hayes & Cai, 2007) was utilized to create heteroskedasticity-consistent standard errors presented in the findings summary table as “Adjusted SE B;” the provision of robust standard errors also helps to account for the nesting problem noted in Chapter 3.

Research Question 4: The fourth research question examined how well auspice predicted various labor conditions (e.g., gross hourly wages), while controlling for individual-level factors (i.e., education, age, years at current center, years in childcare field)^{28,29,30,31}.

²⁷ Also, given concerns regarding multi-collinearity a second model was undertaken to confirm the robustness of the coefficients by removing non-significant items, with no significant changes in direction and magnitude noted.

²⁸ The following model was utilized in each of the primary full regression models for research question four:

$Y = A + B(X_1) + B(X_2) + B(X_3) + B(X_4) + B(X_5) + B(X_6) + B(X_7) + B(X_8) + B(X_9) + B(X_{10}) + B(X_{11})$, where:

- $B(X_1)$ = Non-profit (by coding non-profit and everyone else as 0);
- $B(X_2)$ = Cooperative (by coding cooperative 1 and everyone else 0) ;
- $B(X_3)$ = Age_24 and under (by coding 24 and under as 1 and everyone else as 0);
- $B(X_4)$ = Age_25 to 34 (by coding 25 to 34 as 1 and everyone else as 0);
- $B(X_5)$ = Age_35 to 44 (by coding 35 to 44 as 1 and everyone else as 0);
- $B(X_6)$ = Educ_PostSec/No Degree (by coding some post secondary/no degree as 1 and everyone else as 0);
- $B(X_7)$ = Educ_BA or more (coding bachelor’s degree or higher as 1, everyone else as);
- $B(X_8)$ = YrsInChildcare_3to10 (by coding 3 to 10 years as 1 and everyone else as);
- $B(X_9)$ = YrsInChildcare_10+ (by coding 10 or more years as 1 and everyone else as);
- $B(X_{10})$ = YrsAtCurrentCtr_3to10 (by coding 3 to 10 years as 1, everyone else as); and,
- $B(X_{11})$ = YrsAtCurrentCtr_10+ (by coding 10 or more years as 1 and everyone else as).

²⁹ The following model was utilized in each of full regression models used to assess statistical differences between non-profit and cooperative centers in particular (i.e., changing the baseline from for-profit to non-profit):

$Y = A + B(X_1) + B(X_2) + B(X_3) + B(X_4) + B(X_5) + B(X_6) + B(X_7) + B(X_8) + B(X_9) + B(X_{10}) + B(X_{11})$, where:

- $B(X_1)$ = For-profit (by coding For-profit 1 and everyone else as 0);
- $B(X_2)$ = Cooperative (by coding cooperative 1 and everyone else 0) ;
- $B(X_3)$ = Age_24 and under (by coding 24 and under as 1 and everyone else as 0);
- $B(X_4)$ = Age_25 to 34 (by coding 25 to 34 as 1 and everyone else as 0);
- $B(X_5)$ = Age_35 to 44 (by coding 35 to 44 as 1 and everyone else as 0);

For each of the (continuous) outcomes of interest, a multiple regression model—adding blocks conceptually—was carried out to determine the relationship between auspice and said variable, while controlling for demographic/individual-level factors (i.e., age, education level, years in childcare, and years at current center). Given the scope of the current research an additional model explored differences between non-profit and cooperative centers, in particular, with findings reported only when significant differences were obtained. For each model³², blocks were added conceptually as follows: the first block included demographic/control variables, followed by auspice in the second block. In the event that model diagnostics presented some concern regarding threats to homoscedasticity, the Breusch-Pagan test was conducted (Pryce, 2002). And, if results indicated the presence of heteroscedasticity the Hayes-Cai SPSS Macro (Hayes & Cai, 2007) was utilized to create the heteroskedasticity-consistent standard errors presented in the findings summary table as “Adjusted SE B;” the provision of robust standard errors also helps to account for the nesting problem noted in Chapter 3.

In the case of categorical outcomes, a logistic regression was undertaken to determine the relationship between auspice and the probability of said outcome, controlling for the influence of individual-level factors. With each outcome, two primary models were explored³³: (i) the first

-
- B(X₆) = Educ_PostSec/No Degree (by coding some post secondary/no degree as 1 and everyone else as 0);
 - B(X₇) = Educ_BA or more (coding bachelor’s degree or higher as 1, everyone else as);
 - B(X₈) = YrsInChildcare_3to10 (by coding 3 to 10 years as 1 and everyone else as);
 - B(X₉) = YrsInChildcare_10+ (by coding 10 or more years as 1 and everyone else as);
 - B(X₁₀) = YrsAtCurrentCtr_3to10 (by coding 3 to 10 years as 1, everyone else as); and,
 - B(X₁₁) = YrsAtCurrentCtr_10+ (by coding 10 or more years as 1 and everyone else as).

³⁰ Prior to running each logistic regression, model diagnostics were undertaken to assess the linearity of the logit, possible multicollinearity, and potentially influential cases (outliers). In so doing, the Hosmer and Lemeshow Test (i.e., non-significant result) and the Nagelkerke R^2 values were examined to assess model fit, a correlation matrix was assessed to ensure that r values were no greater than .8, that multicollinearity diagnostics indicated Tolerance levels no less than .20 and VIF scores ideally less than a value of 5 and no greater than 10, and Cook’s distances no greater than a value of 1.0 (i.e., indicating a lack of overly influential cases) (please see Appendix J for further details). For each of the following models, these assumptions were met.

³¹ Once a full multiple regression model was determined, model diagnostics and assumptions were tested via the following: multicollinearity diagnostics [correlation matrix ($r < .8$), tolerance levels ($> .02$), variance inflation factors (ideally < 5 and no > 10)], plots of the standardized predicted values (ZPRED) and standardized residuals (ZRESID) to assess homoscedasticity, histogram and p-p plots to determine the presence—or not—of normally distributed residuals, a Kolmogorov-Smirnov test to statistically assess normality (given sample size > 2000), and Cook’s distance statistic to identify cases with a significant influence on the overall model. Finally, please see Appendix K for a compilation of mean/frequency and inter-correlation tables for each of the following logistic and multiple regressions.

³² An additional model was undertaken to examine potential interaction effects among age, education, years in childcare, and years at current centers, with no significant effects noted. Also, given concerns regarding multicollinearity a final model was undertaken to confirm the robustness of the coefficients by removing non-significant items, with no significant changes in direction and magnitude noted.

³³ An additional model was undertaken to examine potential interaction effects among age, education, years in childcare, and years at current centers, with no significant effects noted. Also, given concerns regarding multicollinearity a final model was undertaken to confirm the robustness of the coefficients by removing non-significant items, with no significant changes in direction and magnitude noted.

included auspice alone; and, (ii) the second added nine additional factors accounting for the influence of age, education, years at current center, and years in childcare. Given the scope of the current research one additional model was used to explore differences between non-profit and cooperative centers, in particular, with findings reported only when significant differences were obtained.

Research Question 5: The final research question explored the extent to which auspice predicted (i) turnover/intentions to leave and (ii) level of job security, controlling for individual-level factors (e.g., age); gross hourly wages; satisfaction with pay/benefit/promotional opportunities; unionization; promotional opportunities; professional development; the nature of the work; co-worker and supervisory relationship satisfaction; workplace social capital; organizational influence and decision-making practices; and, quality of the work situation.

With regard to the analyses concerning turnover/intentions to leave, a series of logistic regressions were undertaken to determine the relationship between auspice and employee intentions to (i) remain at the current center in the coming year and (ii) remain in the childcare field in the coming three years, controlling for individual-level factors (age, education, years in childcare, years at current center); gross hourly wages; pay/benefit/promotional opportunity satisfaction; unionization; promotional opportunities; professional development; the nature of the work; co-worker and supervisory relationship satisfaction; workplace social capital; organizational influence and decision-making practices; and quality of the work situation.

With each outcome, a series of four models was explored³⁴: (i) the first includes auspice alone; (ii) the second adds 9 additional factors accounting for the influence of age, education, years at current center, and years in childcare (also presented in the previous section, presented herein to demonstrate how the model predictability changes following the inclusion of additional factors); (iii) the third adds 5 additional factors accounting for gross hourly wages, pay/benefit/promotion satisfaction, unionization, promotional opportunities, and professional development; and, (iv) the fourth adds 9 additional factors accounting for perceptions regarding the most positive aspect of childcare work, co-worker satisfaction, supervisory satisfaction, degree of centralization and formalization, organizational influence, work situation, and work environment.

In the case of job stability, a multiple regression model—adding blocks conceptually—was carried out to determine the relationship between auspice and perception of job stability, controlling for individual-level factors (age, education, years in childcare, years at current center); gross hourly wages; pay/benefit/promotional opportunity satisfaction; unionization; promotional opportunities; professional development; the nature of the work; co-worker and

³⁴ An additional model was undertaken to examine potential interaction effects among age, education, years in childcare, and years at current centers, with no significant effects noted. Also, given concerns regarding multicollinearity a final model was undertaken to confirm the robustness of the coefficients by removing non-significant items, with no significant changes in direction and magnitude noted.

supervisory relationship satisfaction; workplace social capital; organizational influence and decision-making practices; and quality of the work situation³⁵.

³⁵ An additional model was undertaken to examine potential interaction effects among age, education, years in childcare, and years at current centers, with no significant effects noted. Also, given concerns regarding multicollinearity a final model was undertaken to confirm the robustness of the coefficients by removing non-significant items, with no significant changes in direction and magnitude noted.

Table 23: Analysis Plan Matrix

Primary Research Question	Independent Variable	Control Variables	Dependent Variables	Statistical Analysis
1. In what ways do employee labor conditions (e.g., wages) in cooperatives differ from non-profit and for-profit childcare centers?	Auspice (Non-profit, for-profit, coop)	---	Nature of the work; wages and benefits; union membership; presence and frequency of staff meetings; work environment; perceptions, and recommendations about childcare; opportunities for advancement and professional development; co-worker and supervisory relationships; workplace social capital; levels of formalization and centralization; turnover; and job stability	Chi-Square ANOVA
2. In what ways do individual-level factors (e.g., # of years within childcare field) within cooperatives differ from non-profit and for-profit childcare centers?	Auspice (Non-profit, for-profit, coop)	---	Teacher education level; teacher age; # of years in current center; # of years in childcare.	Chi-Square ANOVA
3. How well does auspice predict various labor conditions (e.g., gross wages), controlling for individual-level factors (e.g., education level, age)?	Auspice (Non-profit, for-profit, coop)	Teacher education, teacher age, # of years at current center, & # of years total in childcare field	Wages and benefits; union membership; presence of staff meetings, feelings, perceptions, and recommendations about childcare; opportunities for advancement & professional development; co-worker and supervisory relationships; levels of formalization and centralization; perceptions of work environment; and, turnover	Ordered Logistic Regression Multiple Regression

4. How well do labor conditions (e.g., wages) predict turnover/intentions to leave and level of job security, controlling for the nature of the work, co-worker and supervisory relationship satisfaction, workplace social capital, decision-making practices, and quality of the work situation?	Wages, pay/ben./promo. satisfaction, unionization, promotional opp., & professional dev.	Nature of the work, co-worker relationship satisfaction, supervisory relationship satisfaction, centralization, formalization, organizational influence, work situation & work environment satisfaction.	Turnover/intention to leave and level of job security.	Ordered Logistic Regression Multiple Regression
5. How well does auspice predict turnover/intentions to leave and level of job security, controlling for: individual-level factors; gross hourly wages; pay/benefit/promotional opportunity satisfaction; unionization; promotional opportunities; professional development; the nature of the work; co-worker and supervisory relationship satisfaction; workplace social capital; organizational influence and decision-making practices; and quality of the work situation?	Auspice (Non-profit, for-profit, coop)	Teacher education, teacher age, # of years at current center, # of years total in childcare field, wages, pay/ben./promo. satisfaction, unionization, promotional opp., professional dev., Nature of the work, co-worker relationship satisfaction, supervisory relationship satisfaction, centralization, formalization, organizational influence, work situation, & work environment satisfaction.	Turnover/intention to leave and level of job security.	Ordered Logistic Regression Multiple Regression

SECTION 7: HUMAN SUBJECTS

Based on consultation with the Office for Human Research Protections (OHRP) (please see Appendix L), it has been determined that the current research does not meet the threshold definition of “human subjects” research set forth in Federal Regulations at 45 CFR 46.102(f). More specifically, the data to be used were (1) not collected specifically for the currently proposed research project through an interaction or intervention with living individuals; and, (2) the investigator(s) cannot readily ascertain the identity of the individual(s) to whom the coded private information pertain. As such OHRP ruled that the “project does not fall within the scope of the Committee’s responsibilities, and, as such, the current research “did not require further approval” (i.e., the project has been deemed “exempt”). It should also be noted that the YBIC! Study did attain written consent from all participants prior to data collection.

CHAPTER 4

RESULTS

The following chapter reports the empirical results obtained from the analyses of the *YBIC!* data outlined in Chapter 3, all of which were performed using SPSS Statistics for Macintosh Version 20 (IBM Corp, 2011). The following sections present findings concerning each of the five guiding research questions as outlined in Chapter 1.

SECTION 1: FINDINGS FROM RESEARCH QUESTION 1

The first research question concerned the ways in which employees' working conditions in cooperatives differ from non-profit and for-profit childcare centers. Given the descriptive nature of these results and the fact that each of these variables will be explored further in the larger regression models, the following is offered as a brief summary of findings (please see Tables 24 and 25 for prevalence (%), means, standard deviations, chi-square, and ANOVA results found among for-profit, non-profit, and cooperative employees).

Non-profit and cooperative employees reported enhanced labor conditions within several key dimensions as compared to for-profit employees, namely: higher wages, greater satisfaction with benefits, greater rates of unionization, greater worksite satisfaction, greater promotional and professional development opportunities, greater co-worker satisfaction; and, higher levels of formalization, centralization, and organizational-decision making.

One of the primary contributions of the current study is, moreover, a closer examination of additional sub-sector differences—specifically those concerning cooperatives. In this regard, cooperatives—nearly uniformly—performed as well as non-profit centers as compared to for-profits in many of the domains of primary interest noted above (e.g., improvements in annual salary and benefits over past 2 years; pay, benefit, and promotional satisfaction; union representation; regularly scheduled meetings; levels of formalization and centralization). In addition to performing significantly better than for-profits, cooperatives *also* had significantly better outcomes as compared to non-profits with respect to the following domains:

- More likely to have meeting attendance covered via paid overtime
- More likely to receive paid release time to attend professional development activities
- Less likely to report they would earn more money and achieve a higher status at another center
- Less likely to report that providing a better salary would improve their satisfaction of working in childcare field
- Less likely to suggest they would leave childcare field within the next 3 years due to low wages

And, with respect to the percentage of total household costs covered by one's salary, cooperative employees were able to cover a significantly greater percentage of their household maintenance costs, on a scale from 1 (80% - 100%) to 4 (25% or less), as compared to for-profit employees (with non-significant findings obtained between for- and non-profits and non-profits and coops).

Table 24: Aspects of Working in the Childcare Field (Chi-Square Results)

Variable	For-Profit %	Non-Profit %	Coop %	χ^2	<i>p</i>	Cramer's <i>V</i>
Working with children – Most positive aspect of work	83.1	79.4	81.0	10.42	.41	.03
Increases in annual salary (during prior 2 yrs.)	50.8	56.6	62.5	17.56	.001	.06
Improvements in benefits (during prior 2 yrs.)	9.4	20.6	22.4	71.09	<.001	.12
Unionization rates	1.0	15.0	17.1	117.91	<.001	.15
One scheduled staff meeting/month	36.1	57.8	61.8	277.19	<.001	.23
Need to leave childcare to earn more & achieve higher status position	75.2	76.4	74.5	0.87	.65	.02
Would choose childcare if choosing profession again	46.0	45.7	49.3	3.98	.41	.03
Do <i>not</i> believe there is a possibility of promotion at current center	76.1	75.9	76.0	.004	.998	.001
Earn more/achieve higher status position at another center (yes)	57.1	40.1	32.4	87.77	<.001	.18
Participation in professions development in prior 12mo.	61.7	81.9	78.9	113.99	<.001	.21
Satisfied with job progression (yes)	79.9	83.1	83.5	4.19	.12	.04
Chances for promotion are good (yes)	7.5	10.1	9.3	4.07	.13	.04
Intentions to remain working at current center in coming year	68.4	81.8	83.5	62.14	<.001	.15
Intentions to remain working in childcare field in coming 3 years	71.4	79.4	80.2	20.48	<.001	.09
Types of professional development	---	---	---	---	---	---
Workshops	40.1	64.9	60.1	127.62	<.001	.22
Conferences	16.8	33.7	29.8	73.51	<.01	.16
Other in-service trainings	10.9	21.4	18.3	38.22	<.001	.12
Assistance to attend professional development activities	---	---	---	---	---	---
Payment of fee	27.2	56.8	47.1	180.46	<.001	.26
Paid release time	6.9	31.8	37.2	210.24	<.01	.28
No assistance	27.0	14.6	16.1	54.18	<.001	.14
Compensation for meeting attendance	---	---	---	160.50	<.001	.18
Paid overtime	19.1	30.9	51.5	---	---	---
Unpaid overtime	56.8	45.9	25.6	---	---	---

Table 25: Aspects of Working in the Childcare Field (ANOVA Results)

Variable	For-Profit		Non-Profit		Coop		ANOVA		η^2
	SD	M	SD	M	SD	F	p		
Unpaid overtime hours per week	1.61	3.39	2.00	3.23	1.50	2.55	6.65	.001	.005
Gross hourly wages	8.68	2.61	11.87	3.27	11.19	3.19	319.42	<.001	.168
% of household costs covered by salary*	2.45	1.12	2.35	1.09	2.29	1.06	3.51	.03	.003
Pay, benefit & promotion satisfaction	2.48	1.59	3.15	1.57	3.23	1.53	53.59	<.001	.038
Satisfaction with work environment	5.56	2.03	5.94	1.81	5.74	1.91	9.95	<.001	.008
Satisfaction with work situation	37.68	8.14	39.30	6.49	39.34	6.13	11.26	<.001	.011
Co-worker relationship satisfaction	6.61	1.70	6.82	1.65	6.72	1.68	3.82	.02	.003
Supervisory relationship satisfaction	6.38	2.14	6.53	2.20	6.62	2.00	2.34	.10	.002
Workplace social capital	6.49	1.58	6.65	1.54	6.64	1.58	2.66	.07	.002
Degree of formalization	1.69	1.48	3.41	1.77	3.23	1.76	321.67	<.001	.20
Degree of centralization	5.14	2.31	5.40	2.41	5.66	2.24	8.20	<.001	.006
Organizational influence	12.68	3.23	13.61	3.32	13.63	3.49	20.12	<.001	.016
Job stability	3.97	1.04	4.01	0.98	4.1	0.98	0.59	0.55	.0004
Aspects that could improve childcare field	---	---	---	---	---	---	---	---	---
Providing a better salary	2.89	0.35	2.92	0.28	2.86	0.37	5.64	.004	.005
Improving benefits	2.77	0.49	2.71	0.51	2.64	0.53	10.29	<.001	.008
Promoting more respect for childcare workers	2.83	0.42	2.91	0.32	2.86	0.39	11.85	<.001	.009
Providing more support services to centers caring for children with special needs/challenging behavior	2.70	0.51	2.78	0.44	2.78	0.46	7.87	<.001	.007
Reducing # of children/teacher	2.28	0.72	2.37	0.68	2.41	0.65	7.02	.001	.001
Providing regularly scheduled (not overtime) preparation time	2.62	0.57	2.75	0.47	2.66	0.53	17.14	<.001	.01
Providing regularly scheduled time to communicate with parents	2.31	0.63	2.41	0.61	2.40	0.59	7.89	<.001	.006

* = On a scale ranging from 1 (80% to 100%) to 4 (25% or less).

SECTION 2: FINDINGS FROM RESEARCH QUESTION 2

The second research question examined the ways in which individual-level factors (i.e., age, education, years at current center, years in childcare field) differed among for-profit, non-profit, and cooperative employees. Again, given the descriptive nature of these results and the fact that each of these variables will be explored further in the larger regression models, the following is offered as a brief summary of findings (please see Table 26 for prevalence (%) and chi-square results obtained among the three auspices).

Results indicate that non-profit employees, as compared to for-profit and cooperative employees, were significantly *less* likely to report having a high school degree or less (11.8%) and significantly *more* likely to report some post-secondary education (but no degree) (70.3%). There were no significant differences with respect to the education levels of cooperative and for-profit employees. Also, although the single greatest percentage per age category across auspice was that of 25-to-34 year olds (37.5% for-profit, 45.1% non-profit, and 39.3% cooperative), employees of for-profits tended to be younger in age (67.8%, 34-and-below), while employees of cooperatives tended to be older in age (41.9%, 35-and-over). For-profit employees were also most likely (58.7%) to report one to three years working at their current center, while non-profit (47.2%) and cooperative (42.9%) employees were most likely to report 3-to-10 years. It is also of note that cooperative employees reported the single greatest percentage (17.1%) of 10 or more years working at their current center. Finally, although the single greatest percentage per years of experience category across auspice was that of 3-to-10 years (45.0% for-profit, 44.7% non-profit, and 44.0% cooperative), for-profit employees reported the single greatest percentage (35.7%) within the less than 1-to-3 years category while non-profit employees reported the single greatest percentage (36.1%) within the 10+ years category.

Table 26: Prevalence (%) of Individual-Level Factors among For-Profit, Non-Profit and Cooperative Employees

Variable	For-Profit %	Non-Profit %	Coop %	χ^2	<i>p</i>	Cramer's <i>V</i>
Education level				46.16	<.001	.09
High school degree or less	22.5	11.8	19.0			
Some post-secondary education, no degree	60.7	70.3	63.8			
Bachelor's degree or more	16.8	17.9	17.2			
Age				59.70	<.001	.11
24 and under	30.3	17.3	18.8			
25 to 34	37.5	45.1	39.3			
35 to 44	19.1	24.0	25.9			
45 and over	13.1	13.6	16.0			
Years at current center				94.92	<.001	.13
Less than 1 to 3 years	58.7	39.3	39.9			
3 to 10 years	34.7	47.2	42.9			
10+ years	6.6	13.5	17.1			
Years in childcare field				103.24	<.001	.14
Less than 1 to 3 years	35.7	19.2	24.4			
3 to 10 years	45.0	44.7	44.0			
10+ years	19.3	36.1	31.5			

SECTION 3: FINDINGS FROM RESEARCH QUESTION 3

The third research questions explored the extent to which various labor conditions (e.g., gross hourly wages) predicted turnover/intentions to leave and level of job stability, controlling for the nature of the work, co-worker and supervisory relationships, workplace social capital³⁶, decision-making practices, and quality of the work situation. To follow is a brief summary of findings.

3.1. Working at Current Center in One Year

Model 1 demonstrates highly significant ($p < .001$) effects of gross hourly wages, pay/benefits/promotion satisfaction, and promotional opportunities on intentions to remain at the current center in the coming year. The addition of 8 additional factors in Model 2 resulted in an increase in the explanatory power of the model by more than 50% by now accounting for approximately 20.2% of the total variance in the outcome (please see Table 27 below). Controlling for all other factors, a 1 SD increase in gross hourly wages ($SD = \$.95$ ³⁷) increased the odds of remaining at the current center in the coming year by a factor of 1.08³⁸ (or by 8%); and, a 1 SD ($SD = 1.91$ ³⁹) increase in pay/benefit/promotion satisfaction increased the odds of remaining at the current center in the coming year by a factor of 1.33⁴⁰ (or by 33%). Also of note, a 1 SD ($SD = 0.48$ ⁴¹) increase in work situation *increased* the odds of remaining at the current center in the coming year by a factor of 1.05⁴² (or by 5%), controlling for all other factors.

³⁶ Workplace social capital was dropped from this model do to concerns regarding multicollinearity—please see Appendix J for further detail.

³⁷ $SD = SE\sqrt{N}$; $.02\sqrt{2272} = .95$

³⁸ $\text{Log Odds} = B(SD) \rightarrow \text{LogOdds} \rightarrow e^{\log \text{ odds}} \rightarrow \text{OR}$; $.08(.95) = .076 \rightarrow e^{.076} = 1.08$

³⁹ $SD = SE\sqrt{N}$; $.04\sqrt{2272} = 1.91$

⁴⁰ $\text{Log Odds} = B(SD) \rightarrow \text{LogOdds} \rightarrow e^{\log \text{ odds}} \rightarrow \text{OR}$; $.15(1.91) = .2865 \rightarrow e^{.2865} = 1.33$

⁴¹ $SD = SE\sqrt{N}$; $.01\sqrt{2272} = 0.48$

⁴² $\text{Log Odds} = B(SD) \rightarrow \text{LogOdds} \rightarrow e^{\log \text{ odds}} \rightarrow \text{OR}$; $.10(.48) = .048 \rightarrow e^{.048} = 1.05$

Table 27: Results from Two Logistic Regressions Predicting Employee Intentions to Remain at Current Center for the Coming Year

Variable	Model 1					Model 2				
	B	SE	<i>p</i>	OR	CI	B	SE	<i>p</i>	OR	CI
Constant	-.53	.17	---	---	---	-4.64	.43	---	---	---
Gross Hourly Wages	.08***	.02	<.001	1.08	1.05 – 1.12	.08***	.02	<.001	1.08	1.04 – 1.12
Total Pay, Benefit & Promotion Score	.28***	.03	<.001	1.33	1.25 – 1.41	.15***	.04	<.001	1.16	1.07 – 1.25
Union Membership (base = Not Unionized)	.21	.16	.19	1.23	0.90 – 1.67	.25	.18	.17	1.29	0.90 – 1.85
Promotion Opportunities (base = No Opportunities)	.43***	.12	<.001	1.54	1.21 – 1.95	.12	.14	.40	1.13	0.86 – 1.48
Professional Development (base = No Professional Dev.)	.08	.11	.44	1.09	0.88 – 1.34	-.04	.13	.75	0.96	0.74 – 1.24
Nature of the Work (base = “other”)						.11	.14	.44	1.12	0.85 – 1.47
Co-Worker Satisfaction						.08**	.03	.01	1.09	1.02 – 1.16
Supervisor Satisfaction						.03	.03	.36	1.03	0.97 – 1.09
Centralization						.004	.03	.88	1.01	0.95 – 1.06
Formalization						.03	.04	.32	1.04	0.97 – 1.11
Organizational Influence						.03	.02	.14	1.03	0.99 – 1.07
Work Situation Satisfaction						.10***	.01	<.001	1.10	1.08 – 1.13
Work Environment Satisfaction						-.07*	.03	.04	0.93	0.87 – 1.00
-2LL			2858.21					2064.67		
χ^2			181.74, <i>df</i> =5, <i>p</i> <.001					319.85, <i>df</i> =13, <i>p</i> <.001		
Nagelkerke pseudo <i>r</i> ²			9.3%					20.2%		
Hosmer & Lemshow test			.01					.02		
Classification Accuracy			78.5%					80.6%		

Note 1: **p* < .05; ***p* < .01; ****p* < .001; Note 2: Model 1, *n* = 2,914; Model 2, *n* = 2272.

3.2. Working in Childcare Field in Three Years

As noted in Table 28 below, Model 1 demonstrates highly significant ($p < .001$) effects of gross hourly wages, pay/benefits/promotion satisfaction, unionization, and promotional opportunities on intentions to remain in the childcare field in the coming three years. With the addition of 8 factors, Model 2 now accounts for approximately 15.8% of the total variance in the outcome. Controlling for all other factors, a 1 SD increase in gross hourly wages ($SD = \$0.95^{43}$) increased the odds of remaining within the childcare field in the coming three years by a factor of 1.08⁴⁴ (or by 8%). Controlling for all other factors, unionized employees were 1.53 times (or 53%) more likely than non-unionized to indicate an intention to remain within the childcare field in the coming three years. Those indicating the presence of promotion opportunities were 1.56 times (or 56%) more likely than those lacking promotional opportunities to indicate an intention to remain within the childcare field in the coming three years, controlling for all other factors. And, finally, a 1 SD ($SD = 0.48^{45}$) increase in work situation *increased* the odds of remaining at the current center in the coming year by a factor of 1.05⁴⁶ (or by 5%), controlling for all other factors.

⁴³ $SD = SE\sqrt{N}$; $.02\sqrt{2263} = 0.95$

⁴⁴ $\text{Log Odds} = B(SD) \rightarrow \text{LogOdds} \rightarrow e^{\log \text{ odds}} \rightarrow \text{OR}$; $0.08 (.095) = 0.076 \rightarrow e^{.076} = 1.08$

⁴⁵ $SD = SE\sqrt{N}$; $.01\sqrt{2263} = .48$

⁴⁶ $\text{Log Odds} = B(SD) \rightarrow \text{LogOdds} \rightarrow e^{\log \text{ odds}} \rightarrow \text{OR}$; $.11(.48) = 0.0528 \rightarrow e^{.0528} = 1.05$

Table 28: Results from Two Logistic Regressions Predicting Employee Intentions to Remain in Childcare Field in Coming 3-Years

Variable	Model 1					Model 2				
	B	SE	<i>p</i>	OR	CI	B	SE	<i>p</i>	OR	CI
Constant	-.19	.17	---	---	---	-3.84	.41	---	---	---
Gross Hourly Wages	.06***	.02	<.001	1.06	1.03 – 1.10	.08***	.02	<.001	1.08	1.01 – 1.12
Total Pay, Benefit & Promotion Score	.16***	.03	<.001	1.18	1.11 – 1.25	.03	.04	.46	1.03	0.95 – 1.11
Union Membership (base = Not Unionized)	.38*	.16	.02	1.47	1.08 – 1.10	.43*	.18	.02	1.53	1.08 – 2.18
Promotion Opportunities (base = No Opportunities)	.70***	.12	<.001	2.01	1.58 – 2.57	.44**	.14	.002	1.56	1.18 – 2.05
Professional Development (base = No Professional Dev.)	.15	.11	.15	1.16	0.95 – 1.43	.15	.13	.25	1.16	0.90 – 1.49
Nature of the Work (base = “other”)						.11	.14	.42	1.12	0.86 – 1.45
Co-Worker Satisfaction						.06	.03	.09	1.06	0.99 – 1.13
Supervisor Satisfaction						.02	.03	.52	1.02	0.96 – 1.08
Centralization						-.05	.03	.95	0.95	0.90 – 1.01
Formalization						-.06	.03	.94	0.94	0.88 – 1.01
Organizational Influence						.02	.02	.46	1.02	0.98 – 1.05
Work Situation Satisfaction						.11***	.01	<.001	1.11	1.09 – 1.13
Work Environment Satisfaction						-.07*	.03	.04	0.94	0.88 – 0.99
-2LL			2943.33					2164.93		
χ^2			133.29	<i>df</i> =5, <i>p</i> <.001				247.74, <i>df</i> =13, <i>p</i> <.001		
Nagelkerke pseudo <i>r</i> ²			6.9%					15.8%		
Hosmer & Lemshow test			.53					.16		
Classification Accuracy			77.6%					78.7%		

Note 1: **p* < .05; ***p* < .01; ****p* < .001; Note 1: Model 1, *n* = 2891; Model 2, *n* = 2263.

3.3. Level of Job Stability

Given the slightly unequal distribution noted on the residual vs. fitted plot, the Breusch-Pagan test was conducted (Pryce, 2002) to statistically assess the significance of threats to homoscedasticity. Results indicate the presence of heteroscedasticity (χ^2 (df = 13; N = 2292) = 239.67, $p < .001$). As such the Hayes-Cai SPSS Macro (Hayes & Cai, 2007) was utilized to create the heteroskedasticity consistent standard errors presented in Table 29 below.

The control variables were significantly associated ($p < .001$) with the outcome, accounting for 11.3% of the variance in job stability. Organizational influence had the greatest impact; with a 1 SD increase associated with a .18 standard deviation increase ($p < .001$) in perceptions of job stability. The select labor conditions entered on Step 2 were also found to be significantly associated ($p < .001$) with the outcome. Specifically, unionization and pay, benefit, and promotion satisfaction were found to be significant predictors of job stability. Interestingly, unionized employees reported, on average .12 points lower on job stability than non-unionized employees, controlling for all other variables.

Table 29: Multiple Regression Analysis Summary for Control Variables and Labor Indices Influence Over Job Stability

Variable	<i>B</i>	<i>Adjusted! SE B</i>	β	<i>p</i>
Step 1: Control Variables				
Positive Aspect of Childcare Field – Nature of Work	.04	.05	.01	.49
Other (ref.)				
Co-Worker Relationship Satisfaction	.05	.01	.09***	<.001
Supervisory Relationship Satisfaction	.01	.01	.02	.51
Centralization	-.004	.01	-.01	.72
Formalization	.01	.01	.02	.41
Organizational Influence	.06	.01	.18***	<.001
Work Situation	.02	.004	.14***	<.001
Work Environment	.02	.01	.03	.19
Step 2: Select Labor Conditions				
Gross Hourly Wages	-.0003	.01	-.001	.96
Pay, Benefit, Promotion Satisfaction	.06	.01	.10***	<.001
Unionization	-.35	.06	-.12***	<.001
Non-Unionized (ref.)				
Promotional Opportunities	.02	.05	.01	.70
Professional Development	-.001	.05	-.001	.98
Constant	1.80	.16	---	---

Note 1: !Adjusted *SE B* reflects the Hayes-Cai heteroskedasticity consistent standard errors.

Note 2: $R^2 = .113$ for Step 1; $R^2 = .134$ for Step 2; $\Delta R^2 = .021$ for Step 2 ($p < .001$).

Note 3: * $p < .05$; ** $p < .01$; *** $p < .001$.

Note 2: $n = 2292$.

SECTION 4: FINDINGS FROM RESEARCH QUESTION 4

The fourth research question examined how well auspice predicted various labor conditions (e.g., gross hourly wages), while controlling for individual-level factors (i.e., education, age, years at current center, years in childcare field). Table 30 summarizes the prevalence of control and

independent variables for the entire sample, with a summary of overall findings presented thereafter for each outcome of interest.

Table 30: Total Sample, by demographic/background and independent variables

Variable	Value	<i>n</i>	%
Age	24 and Under	834	20.2
	25 to 34	1704	41.3
	35 to 44	949	23.0
	45+	583	14.1
	Missing	55	1.3
Education (any field)	High School Grad. or less	643	15.6
	Some Post Graduate/No Degree	2729	66.2
	Bachelor's Degree or Higher	686	16.6
	Missing	67	1.6
Years in Childcare Field	Less than 1 to 3 years (ref.)	974	23.6
	3 to 10 years	1837	44.5
	10+ years	1273	30.9
	Missing	41	1.0
Years at Current Center	Less than 1 to 3 years (ref.)	1772	43.0
	3 to 10 years	1728	41.9
	10+ years	599	12.1
	Missing	126	3.1
Auspice	For-Profit	788	19.1
	Non-Profit	1441	34.9
	Cooperative	514	12.5
	Missing	1382	33.5

4.1. Wages & Benefits

4.1.1. Gross Hourly Wages (before taxes)

Results indicate (please see Table 31 below) a highly significant effect ($p < .001$) of demographic/individual-level factors on the outcome, with these variables accounting for 21.8% of the variance in gross hourly wages. Those with some post secondary education/no degree and those with a bachelor's degree or higher received, on average, \$1.84 and \$2.05 more in gross hourly wages, respectively, than those with a high school diploma or less, controlling for all other factors. A highly significant effect ($p < .001$) of auspice on the outcome was also found, with auspice accounting for an additional 9.8% of the variance in gross hourly wages over and above the control variables. Controlling for all other factors, employees of non-profits and cooperatives received, on average, \$2.52 and \$1.97 more in gross hourly wages than those found among for-profit employees, respectively. Significant differences in the gross hourly wages among non-profit and cooperative employees were also found (please see Table 32 below). Results indicate that employees of cooperatives earned, on average, \$0.55 less ($p < .001$) in gross hourly wages than those found among non-profit employees, controlling for all other factors.

Table 31: Multiple Regression Analysis Summary for Individual-Level Factors and Auspice Predicting Gross Hourly Wages

Variable	<i>B</i>	<i>Adjusted! SE B</i>	β	<i>p</i>
Step 1: Demographics/Individual Level Factors				
Age				
24 and Under	-.17	.22	-.02	.46
25 to 34	.37	.19	.05	.051
35 to 44	.45	.20	.06*	.02
45+ (reference)	---			
Education (any field)				
Some Post Graduate/No Degree	1.84	.15	.26***	<.001
Bachelor's Degree or Higher	2.05	.20	.23***	<.001
<i>High School Grad. or less</i> (ref.)	---			
Years in Childcare Field				
3 to 10 years	.39	.17	.06*	.02
10+ years	1.29	.22	.08***	<.001
<i>Less than 1 to 3 years</i> (ref.)	---			
Years at Current Center				
3 to 10 years	.88	.14	.18***	<.001
10+ years	1.79	.25	.13***	<.001
<i>Less than 1 to 3 years</i> (ref.)	---			
Step 2: Auspice				
Non-Profit	2.52	.13	.17***	<.001
Cooperative	1.97	.17	.37***	<.001
<i>For-Profit</i> (reference)	---			
Constant	6.18	.23	---	---

Note 1: !Adjusted *SE B* reflects the Hayes-Cai heteroskedasticity consistent standard errors.

Note 2: $R^2 = .218$ for Step 1; $R^2 = .317$ for Step 2; $\Delta R^2 = .098$ for Step 2 ($p < .001$).

Note 3: * $p < .05$; ** $p < .01$; *** $p < .001$.

Note 4: $n = 2548$.

Table 32: Multiple Regression Analysis Summary for Individual-Level Factors and Auspice Predicting Gross Hourly Wages (focus on Non-Profit vs. Coops)

Variable	<i>B</i>	<i>Adjusted! SE B</i>	β	<i>p</i>
Step 1: Demographics/Individual Level Factors				
Age				
24 and Under	-.17	.25	-.02	.46
25 to 34	.37	.22	.05*	.05
35 to 44	.45	.19	.06*	.02
45+ (reference)	---			
Education (any field)				
Some Post Graduate/No Degree	1.84	.15	.26***	<.001
Bachelor's Degree or Higher	2.05	.20	.23***	<.001
High School Grad. or less (ref.)	---			
Years in Childcare Field				
3 to 10 years	.39	.17	.06*	.03
10+ years	1.29	.22	.18***	<.001
Less than 1 to 3 years (ref.)	---			
Years at Current Center				
3 to 10 years	.88	.14	.13***	<.001
10+ years	1.79	.25	.17***	<.001
Less than 1 to 3 years (ref.)	---			
Step 2: Auspice				
Cooperative	-.55	.15	-.06***	<.001
For-Profit	-2.52	.13	-.34***	<.001
Non-Profit (reference)	---			
Constant	8.70	.13	---	---

Note 1: !Adjusted *SE B* reflects the Hayes-Cai heteroskedasticity consistent standard errors.

Note 2: $R^2 = .218$ for Step 1; $R^2 = .317$ for Step 2; $\Delta R^2 = .098$ for Step 2 ($p < .001$).

Note 3: * $p < .05$; ** $p < .01$; *** $p < .001$.

Note 4: $n = 2,548$.

4.1.2. Total Pay, Benefit & Promotion Satisfaction

The demographic/individual-level factors were significantly associated ($p = .03$) with the outcome, however, accounting for only .7% of the variance in pay, benefit, and promotional satisfaction (please see Table 33 below). Higher levels of education, as compared to a high-school degree or less, were associated with, on average, greater pay, benefit, and promotion satisfaction. Finally, auspice was significantly associated ($p < .01$) with the outcome, accounting for an additional 4.3% of the variance in pay, benefit, and promotion satisfaction scores over and above the first step of control variables. Controlling for all other factors, employees of non-profits and cooperatives assess satisfaction with pay, benefit, and promotional opportunities of their workplaces, on average, .72 and .79 points higher (on a 7-point scale), respectively.

Table 33: Multiple Regression Analysis Summary for Individual-Level Factors and Auspice Predicting Pay, Benefit, and Promotion Satisfaction Scores

Variable	<i>B</i>	<i>SE B</i>	β	<i>p</i>
Step 1: Demographics/Individual Level Factors				
Age				
24 and Under	-.03	.12	-.01	.79
25 to 34	-.09	.10	-.03	.37
35 to 44	-.18	.11	-.05	.10
45+ (reference)				
Education (any field)				
Some Post Graduate/No Degree	-.32	.09	-.09***	<.001
Bachelor's Degree or Higher	-.49	.11	-.12***	<.001
High School Grad. or less (ref.)				
Years in Childcare Field				
3 to 10 years	.03	.10	.01	.72
10+ years	.05	.12	.02	.67
Less than 1 to 3 years (ref.)				
Years at Current Center				
3 to 10 years	-.10	.08	-.03	.20
10+ years	-.07	.13	-.01	.58
Less than 1 to 3 years (ref.)				
Step 2: Auspice				
Non-Profit	.72	.07	.23***	<.001
Cooperative	.79	.09	.19***	<.001
For-Profit (reference)	---			
Constant	2.82	.14	---	---

Note 1: $R^2 = .007$ for Step 1; $R^2 = .050$ for Step 2; $\Delta R^2 = .043$ for Step 2 ($p < .001$).

Note 2: * $p < .05$; ** $p < .01$; *** $p < .001$.

Note 3: $n = 2,606$.

4.2. Union Membership

As evidenced in Table 34 below, Model 1 demonstrates a highly significant ($p < .001$) effect of auspice on union membership, with auspice alone accounting for approximately 10.8% of the variance in union membership. Model 2 increases the explanatory power further by accounting for approximately 14.0% of the total variance in union membership. The odds of unionization among non-profit and cooperative employees were found to be 10.04 times (or 904%) and 13.30 times (or 1230%), respectively, greater than for-profit employees, even *after* controlling for age, education, years in childcare field, and years at current center.

Table 34: Results from Two Logistic Regressions Predicting Union Membership Among Childcare Employees

Variable	B	SE	Model 1			B	SE	Model 2		
			<i>p</i>	OR	CI			<i>p</i>	OR	CI
Constant	-4.35	.318	---	---	---	-5.55	.46	---	---	---
Auspice										
Non-Profit	2.61***	.33	<.001	13.57	7.15 – 25.75	2.31***	.33	<.001	10.04	5.26 – 19.15
Coop (base = For-Profit)	2.78***	.34	<.001	16.07	8.27 – 31.24	2.59***	.34	<.001	13.30	6.80 – 26.01
Age										
24 and Under						.35	.30	.24	1.41	0.79 – 2.53
25 to 34						.35	.22	.11	1.42	0.93 – 2.16
35 to 44 (base = 45+)						.28	.22	.21	1.32	0.86 – 2.02
Education (any field)										
Some Post Graduate/No Degree						.46*	.22	.04	1.58	1.03 – 2.44
Bachelor's Degree or Higher (base = High School Grad or less)						.62**	.25	.01	1.86	1.13 – 3.06
Years in Childcare Field										
3 to 10 years						.19	.25	.46	1.20	0.73 – 1.98
10+ years (base = less than 1 to 3 years)						.31	.29	.29	1.36	0.77 – 2.42
Years at Current Center										
3 to 10 years						.72***	.18	<.001	2.05	1.43 – 2.94
10+ years (base = less than 1 to 3 years)						.89***	.25	<.001	2.44	1.49 – 4.00
-2LL			1788.586					1625.92		
χ^2			154.952, <i>df</i> =2, <i>p</i> <.001					111.62, <i>df</i> =11, <i>p</i> <.001		
Nagelkerke pseudo <i>r</i> ²			10.8%					14.0%		
Hosmer & Lemshow test			<i>p</i> =1.00					<i>p</i> = .21		
Classification Accuracy			88.63%					88.91%		

Note 1: **p* < .05; ***p* < .01; ***< .001.

Note 2: Model 1, *n* = 2743; Model 2, *n* = 2606.

4.3. Perceptions of Work Situation

The demographic/individual-level factors were significantly associated ($p < .01$) with the outcome, however, accounting for only 1.0% of the variance in work situation scores. And, auspice ($p < .001$) was significantly associated with work situation, accounting for an additional 1.3% of the variance in work situation scores over and above the first step of control variables. Controlling for all other variables, employees of non-profits and cooperatives scored, on average, 1.79 and 1.91 points *higher* on work situation (indicating more positive assessments of work situation), respectively (please see Table 35 below).

Table 35: Multiple Regression Analysis Summary for Individual-Level Factors and Auspice Predicting Feelings Regarding Work Situation

Variable	<i>B</i>	<i>Adjusted! SE B</i>	β	<i>p</i>
Step 1: Demographics/Individual Level Factors				
Age				
24 and Under	-.08	.60	-.01	.89
25 to 34	-1.08	.48	-.08*	.03
35 to 44	-.87	.48	-.05	.07
45+ (reference)	---			
Education (any field)				
Some Post Graduate/No Degree	-.95	.41	-.06*	.02
Bachelor's Degree or Higher	-1.89	.52	.10***	<.001
High School Grad. or less (ref.)	---			
Years in Childcare Field				
3 to 10 years	.40	.46	.03	.40
10+ years	.47	.58	.01	.43
Less than 1 to 3 years (ref.)	---			
Years at Current Center				
3 to 10 years	.19	.37	.01	.62
10+ years	-.38	.60	-.02	.53
Less than 1 to 3 years (ref.)	---			
Step 2: Auspice				
Non-Profit	1.79	.37	.13***	<.001
Cooperative	1.91	.44	.11***	<.001
For-Profit (reference)	---			
Constant	38.79	.67	---	---

Note 1: !Adjusted *SE B* reflects the Hayes-Cai heteroskedasticity consistent standard errors.

Note 2: $R^2 = .01$ for Step 1; $R^2 = .023$ for Step 2; $\Delta R^2 = .013$ for Step 2 ($p < .001$). * $p < .05$; ** $p < .01$; *** $p < .001$.

Note 3: $n = 2,374$.

4.4. Opportunities for Advancement/Professional Development

4.4.1. Promotional Opportunities

Model 1 yielded a *non*-significant effect of auspice on promotion possibility, with auspice accounting for a mere .002% of the variance. Model 2 did, however, increase the explanatory power of the model by now accounting for approximately 5.7% of the total variance (please see Table 36 below). And, although previously non-significant, the odds of promotional opportunities among non-profit employees was now found to be 1.26 times (or 26%) higher than those found among for-profit employees, controlling for age, education, years in childcare field, and years at current center.

Table 36: Results from Two Logistic Regressions Predicting Promotional Opportunities at Current Center Among Childcare Employee

Variable	B	SE	Model 1			B	SE	Model 2		
			<i>p</i>	OR	CI			<i>p</i>	OR	CI
Constant	-1.16	.09	---	---	---	-1.39	.22	---	---	---
Auspice										
Non-Profit	.007	.11	.95	1.01	0.82 – 1.24	.23*	.11	.05	1.26	1.04 – 2.68
Coop (base = For-Profit)	.005	.14	.97	1.01	0.77 – 1.31	.25	.14	.08	1.29	0.97 – 1.71
Age										
24 and Under						.60**	.20	.003	1.82	1.23 – 2.68
25 to 34						.34	.18	.051	1.41	0.99 – 1.98
35 to 44 (base = 45+)						.10	.19	.59	1.11	0.77 – 1.60
Education (any field)										
Some Post Graduate/No Degree						.13	.14	.34	1.14	0.87 – 1.50
Bachelor's Degree or Higher (base = High School Grad or less)						-.10	.17	.56	0.90	0.64 – 1.27
Years in Childcare Field										
3 to 10 years						-.07	.14	.96	0.99	0.76 – 1.30
10+ years (base = less than 1 to 3 years)						-.25	.19	.18	0.78	0.54 – 1.12
Years at Current Center										
3 to 10 years						-.43***	.12	<.001	0.65	0.52 – 0.83
10+ years (base = less than 1 to 3 years)						-.79***	.23	<.001	0.46	0.29 – 0.71
-2LL				2910.07					2684.22	
χ^2			.004, <i>df</i> =2, <i>p</i> = .998					97.52, <i>df</i> =11, <i>p</i> <.001		
Nagelkerke pseudo <i>r</i> ²			0%					5.7%		
Hosmer & Lemshow			<i>p</i> = 1.00					<i>p</i> = .682		
Classification Accuracy			76.0%					76.1%		

Note 1: **p* < .05; ***p* < .01; ****p* < .001.

Note 2: Model 1, *n* = 2639; Model 2, *n* = 2527.

4.4.2. *Earn More Money & Achieve Higher Status at Another Center*

As evidenced in Table 37 below, Model 1 demonstrates a highly significant ($p < .001$) effect of auspice on teachers' perceptions regarding improved salaries/higher status at other centers, with auspice alone accounting for approximately 4.4% of the variance in the outcome. The inclusion of individual-level factors in Model 2 increased the explanatory power of the model by 59% accounting for approximately 7.5% of the total variance. The odds of believing they could *not* earn more money/achieve a higher status by finding employment at another center among non-profit and cooperative employees were found to be 2.13 times (or 113%) and 2.78 times (or 178%) greater, respectively, than for-profit employees, even after controlling for age, education, years in childcare field, and years at current center.

Significant differences in the outcome were also found between employees of non-profit and cooperatives in particular, controlling for the influence of individual-level factors (please see Table 38 below). The odds of believing they would *not* earn more money/achieve a higher status by finding employment at another center among cooperative employees was found to be 1.30 times (or 30%) *greater* than non-profit employees, even after controlling for age, education, years in childcare field, and years at current center.

Table 37: Results from Two Logistic Regressions Predicting Employee Perceptions Regarding the Likelihood of Earning More Money/Achieving a Higher Status at Another Center

Variable	Model 1					Model 2				
	B	SE	<i>p</i>	OR	CI	B	SE	<i>p</i>	OR	CI
Constant	.285	.07	---	---	---	-.49	.19	---	---	---
Auspice										
Non-Profit	-.69***	.09	<.001	0.50	0.42 – 0.60	-.76***	.10	<.001	0.47	0.39 – 0.57
Coop (base = For-Profit)	-1.02***	.12	<.001	0.36	0.28 – 0.46	-1.02***	.13	<.001	0.36	0.28 – 0.47
Age										
24 and Under						.47**	.17	.01	1.60	1.15 – 2.23
25 to 34						.37**	.14	.01	1.45	1.11 – 1.91
35 to 44 (base = 45+)						.01	.15	.93	1.01	0.76 – 1.35
Education (any field)										
Some Post Graduate/No Degree						.59***	.12	<.001	1.81	1.42 – 2.31
Bachelor's Degree or Higher (base = High School Grad or less)						.54***	.15	<.001	1.72	1.28 – 2.30
Years in Childcare Field										
3 to 10 years						.18	.13	.15	1.20	0.93 – 1.54
10+ years (base = less than 1 to 3 years)						.40*	.16	.014	1.49	1.08 – 2.05
Years at Current Center										
3 to 10 years						-.20	.11	.06	0.82	0.67 – 1.01
10+ years (base = less than 1 to 3 years)						-.52**	.17	.003	0.59	0.42 – 0.83
-2LL			3529.14					3323.37		
χ^2			87.92, <i>df</i> =2, <i>p</i> < .001					146.69, <i>df</i> =11, <i>p</i> < .001		
Nagelkerke pseudo <i>r</i> ²			4.4%					7.5%		
Hosmer & Lemshow			<i>p</i> = 1.00					<i>p</i> = .816		
Classification Accuracy			60.5%					61.5%		

Note 1: **p* < .05; ***p* < .01; ****p* < .001.

Note 2: Model 1, *n* = 2641; Model 2, *n* = 2532.

Table 38: Results from Logistic Regression Predicting Employee Perceptions Regarding the Likelihood of Earning More Money/Achieving a Higher Status at Another Center (focus on Non-Profit vs. Coops)

Variable	B	SE	Model 1 <i>p</i>	OR	CI
Constant	-1.24	.20	---	---	
Auspice					
Coop	-.26*	.12	.02	0.77	0.61 – 0.97
For-Profit (base = Non-Profit)	.76***	.10	<.001	2.13	1.76 – 2.58
Age					
24 and Under	.47**	.17	.01	1.60	1.15 – 2.23
25 to 34	.37**	.14	.01	1.45	1.11 – 1.91
35 to 44	.01	.15	.93	1.01	0.76 – 1.35
(base = 45+)					
Education (any field)					
Some Post Graduate/No Degree	.59***	.12	<.001	1.81	1.42 – 2.31
Bachelor's Degree or Higher	.54***	.15	<.001	1.72	1.28 – 2.30
(base = High School Grad or less)					
Years in Childcare Field					
3 to 10 years	.18	.13	.15	1.20	0.93 – 1.54
10+ years	.40**	.16	.01	1.49	1.08 – 2.05
(base = less than 1 to 3 years)					
Years at Current Center					
3 to 10 years	-.20	.11	.06	0.82	0.67 – 1.01
10+ years	-.52**	.17	.003	0.59	0.42 – 0.83
(base = less than 1 to 3 years)					
-2LL			3323.37		
χ^2			146.69, <i>df</i> =11, <i>p</i> <.001		
Nagelkerke pseudo <i>r</i> ²			7.5%		
Hosmer & Lemshow test			<i>p</i> = .816		
Classification Accuracy			61.5%		

Note 1: **p* < .05; ***p* < .01; ****p* < .001.

Note 2: *n* = 2532.

4.4.3. Participation in Professional Development Activities in Previous 12 months

Model 1 demonstrates a highly significant (*p* < .001) effect of auspice on professional development, with auspice alone accounting for approximately 5.9% of the variance in the outcome. Model 2 further increases the explanatory power of the model by now accounting for approximately 8.6% of the total variance. The odds of participating in professional development within the previous 12 months among non-profit and cooperative employees were found to be 2.41 times (or 141%) and 2.14 times (or 114%) greater, respectively, than among for-profit employees, even after controlling for age, education, years in childcare field, and years at current center (please see Table 39 below).

Table 39: Results from Two Logistic Regressions Predicting Participation in Professional Development Activities in Previous 12 Months

Variable	B	SE	Model 1			B	SE	Model 2		
			<i>p</i>	OR	CI			<i>p</i>	OR	CI
Constant	.48	.07	---	---	---	-.30	.20	---	---	---
Auspice										
Non-Profit	1.03***	.10	<.001	2.81	2.30 – 3.42	.88***	.11	<.001	2.41	1.95 – 2.97
Coop (base = For-Profit)	.84***	.13	<.001	2.31	1.79 – 3.00	.76***	.14	<.001	2.14	1.63 – 2.81
Age										
24 and Under						.16	.19	.39	1.17	0.82 – 1.69
25 to 34						.07	.16	.64	1.08	0.79 – 1.47
35 to 44 (base = 45+)						.34*	.17	.05	1.40	1.01 – 1.95
Education (any field)										
Some Post Graduate/No Degree						.57***	.13	<.001	1.77	1.39 – 2.67
Bachelor's Degree or Higher (base = High School Grad or less)						.50**	.16	.002	1.66	1.21 – 2.26
Years in Childcare Field										
3 to 10 years						.15	.14	.27	1.17	0.89 – 1.53
10+ years (base = less than 1 to 3 years)						.60**	.19	.003	1.75	1.20 – 2.54
Years at Current Center										
3 to 10 years						.19	.12	.13	1.21	0.95 – 1.54
10+ years (base = less than 1 to 3 years)						-.16	.21	.46	0.85	0.57 – 1.29
-2LL			2893.50					2709.28		
χ^2			108.58, <i>df</i> =11, <i>p</i> <.001					153.76, <i>df</i> =11, <i>p</i> <.001		
Nagelkerke pseudo <i>r</i> ²			5.9%					8.6%		
Hosmer & Lemshow			<i>p</i> = 1.00					<i>p</i> = .084		
Classification Accuracy			75.5%					75.9%		

Note 1: **p* < .05; ***p* < .01; ****p* < .001.

Note 2: Model 1, *n* = 2698; Model 2, *n* = 2587.

4.5. Supervisory Relationship Satisfaction

The demographic/individual-level factors were significantly associated ($p < .01$) with the outcome, however, accounting for only 1.0% of the variance in supervisory relationship satisfaction scores. This finding was significantly accounted for by education level, with those having a bachelor's degree or higher reporting an average supervisory satisfaction score .36 points (on a 9-point scale) *lower* than those with a high school diploma or less, controlling for all other factors. And, auspice was *not* significantly associated with the outcome ($p = .06$ —though approaching significance), accounting for only an additional .2% of the variance in supervisory relationship satisfaction scores over and above the first step of control variables. However, in contrast to for-profits and controlling for all other variables, cooperative status *did* have a significant ($p = .05$) affect, with employees of cooperatives scoring, on average, 0.29 points (on a 9-point scale) *higher* on supervisory satisfaction (indicating more positive assessments of supervisors) than for-profit employees (please see Table 40 below).

Table 40: Multiple Regression Analysis Summary for Individual-Level Factors and Auspice Predicting Supervisory Satisfaction Scores

Variable	<i>B</i>	<i>Adjusted! SE B</i>	β	<i>p</i>
Step 1: Demographics/Individual Level Factors				
Age				
24 and Under	-.25	.17	-.05	.15
25 to 34	-.30	.14	-.07	.04
35 to 44	.07	.15	.01	.64
45+ (reference)				
Education (any field)				
Some Post Graduate/No Degree	-.31	.11	-.07**	.01
Bachelor's Degree or Higher	-.36	.14	-.06**	.01
High School Grad. or less (ref.)				
Years in Childcare Field				
3 to 10 years	.20	.13	.05	.13
10+ years	.18	.17	.04	.29
Less than 1 to 3 years (ref.)				
Years at Current Center				
3 to 10 years	-.10	.11	-.02	.34
10+ years	-.47	.18	-.07**	.01
Less than 1 to 3 years (ref.)				
Step 2: Auspice				
Non-Profit	.19	.10	.04	.07
Cooperative	.29	.12	.05*	.02
For-Profit (reference)				
Constant	6.74	.18	---	---

Note 1: !Adjusted *SE B* reflects the Hayes-Cai heteroskedasticity consistent standard errors.

Note 2: $R^2 = .01$ for Step 1; $R^2 = .012$ for Step 2; $\Delta R^2 = .002$ for Step 2 ($p = .06$).

Note 3: * $p < .05$; ** $p < .01$; *** $p < .001$.

Note 4: $n = 2,606$.

4.6. Degree of Formalization and Centralization

4.6.1. Degree of Formalization

The demographic/individual-level factors were significantly associated ($p < .001$) with the outcome, accounting for 6.4% of the variance in formalization. Higher levels of education, as compared to a high-school graduation or less, were associated with, on average, higher workplace formalization. Auspice was also significantly associated ($p < .01$) with the outcome, accounting for an additional 13.8% of the variance in formalization over and above the first step of control variables. Controlling for all other factors, employees of non-profits and cooperatives assess the degree of formalization of their workplaces, on average, 1.57 and 1.51 points *higher* (on a 6-point scale), respectively, that employees of for-profit centers (please see Table 41 below).

Table 41: Multiple Regression Analysis Summary for Individual-Level Factors and Auspice Predicting Degree of Formalization

Variable	<i>B</i>	<i>SE B</i>	β
Step 1: Demographics/Individual Level Factors			
Age			
24 and Under	.29	.13	.07*
25 to 34	.39	.11	.10***
35 to 44	.14	.11	.03
45+ (reference)	---		
Education (any field)			
Some Post Graduate/No Degree	.50	.09	.13***
Bachelor's Degree or Higher	.57	.11	.11***
High School Grad. or less (ref.)	---		
Years in Childcare Field			
3 to 10 years	.19	.10	.05
10+ years	.42	.13	.11**
Less than 1 to 3 years (ref.)	---		
Years at Current Center			
3 to 10 years	.23	.08	.06**
10+ years	.16	.13	.03
Less than 1 to 3 years (ref.)	---		
Step 2: Auspice			
Non-Profit	1.57	.08	.43***
Cooperative	1.51	.10	.32***
For-Profit (reference)			
Constant	.79	.14	---

Note 1: $R^2 = .06$ for Step 1; $R^2 = .202$ for Step 2; $\Delta R^2 = .138$ for Step 2 ($p < .001$).

Note 2: * $p < .05$; ** $p < .01$; *** $p < .001$.

Note 3: $n = 2,606$.

4.6.2. Degree of Centralized Decision Making

The demographic/individual-level factors were *not* significantly associated ($p = .16$) with the outcome, accounting for only .5% of the variance in centralization. Auspice, however, was significantly associated with centralization ($p < .001$), accounting for an additional .9% of the variance in centralization scores over and above the first step of control variables. In contrast to for-profits and controlling for all other variables, employees of non-profits and cooperatives

scored, on average, .35 and .66 points *higher* on centralization (on an 8-point scale; thus, indicating a greater degree of centralized decision making), respectively (please see Table 42 below). Significant differences in the degree of centralization were also found between non-profit and cooperative centers in particular. Results indicate that employees of cooperatives scored, on average, .31 points ($p = .05$) *higher* in centralization scores than those found among non-profit employees (please see Table 43 below), controlling for all other factors.

Table 42: Multiple Regression Analysis Summary for Individual-Level Factors and Auspice Predicting Centralized Decision Making

Variable	<i>B</i>	<i>Adjusted! SE B</i>	β	<i>p</i>
Step 1: Demographics/Individual Level Factors				
Age				
24 and Under	.18	.18	.03	.30
25 to 34	-.15	.15	-.03	.34
35 to 44	-.04	.16	-.01	.81
45+ (reference)				
Education (any field)				
Some Post Graduate/No Degree	-.21	.13	-.04	.10
Bachelor's Degree or Higher	-.17	.16	-.03	.28
High School Grad. or less (ref.)				
Years in Childcare Field				
3 to 10 years	-.03	.14	-.01	.81
10+ years	.03	.18	.01	.87
Less than 1 to 3 years (ref.)				
Years at Current Center				
3 to 10 years	-.17	.12	-.04	.14
10+ years	-.25	.20	-.03	.21
Less than 1 to 3 years (ref.)				
Step 2: Auspice				
Non-Profit	.35***	.11	.07	.001
Cooperative	.66***	.14	.11	<.001
For-Profit (reference)				
Constant	5.39	.19	---	---

Note 1: !Adjusted *SE B* reflects the Hayes-Cai heteroskedasticity consistent standard errors.

Note 2: $R^2 = .005$ for Step 1; $R^2 = .014$ for Step 2; $\Delta R^2 = .009$ for Step 2 ($p < .001$).

Note 3: * $p < .05$; ** $p < .01$; *** $p < .001$.

Note 4: $n = 2,606$.

Table 43: Multiple Regression Analysis Summary for Individual-Level Factors and Auspice Predicting Centralized Decision Making (focus on Non-Profit vs. Coops)

Variable	<i>B</i>	<i>Adjusted! SE B</i>	β	<i>p</i>
Step 1: Demographics/Individual Level Factors				
Age				
24 and Under	.18	.18	.03	.33
25 to 34	-.15	.15	-.03	.34
35 to 44	-.04	.16	-.01	.81
45+ (<i>reference</i>)	---			
Education (any field)				
Some Post Graduate/No Degree	-.21	.13	-.04	.12
Bachelor's Degree or Higher	-.17	.16	-.03	.30
High School Grad. or less (<i>ref.</i>)	---			
Years in Childcare Field				
3 to 10 years	-.03	.14	-.01	.81
10+ years	.03	.18	.01	.88
Less than 1 to 3 years (<i>ref.</i>)	---			
Years at Current Center				
3 to 10 years	-.17	.12	-.04	.15
10+ years	-.25	.20	-.03	.19
Less than 1 to 3 years (<i>ref.</i>)	---			
Step 2: Auspice				
Cooperative	.31	.12	.05*	.02
For-Profit	-.35	.11	-.07***	.001
Non-Profit (<i>reference</i>)	---			
Constant	5.74	.20	---	---

Note 1: !Adjusted *SE B* reflects the Hayes-Cai heteroskedasticity consistent standard errors.

Note 2: $R^2 = .005$ for Step 1; $R^2 = .014$ for Step 2; $\Delta R^2 = .009$ for Step 2 ($p < .001$).

Note 3: * $p < .05$; ** $p < .01$; *** $p < .001$.

Note 4: $n = 2548$.

4.6.3. Influence Over Organizational Decisions & Actions

The demographic/individual-level factors were significantly associated ($p < .001$) with the outcome, accounting for 9.9% of the variance in organizational influence. Employees with some post secondary education/no degree and those with a bachelor's degree or higher obtained, on average, organizational influence scores 1.29 and 1.33 points (on a 14-point scale), respectively, higher than those with a high school diploma or less, controlling for all other factors. In relation to experience and years of employment at their current center, employees with 10 or more years of childcare experience and 10 or more years at the current center obtained on average scores 1.57 and 1.41, respectively, higher than those with less than 1-to-3 years of experience and tenure at the current center, controlling for all other factors. Finally, auspice was significantly associated ($p < .001$) with organizational influence, however, accounting for only 0.3% of the variance in organizational influence over and above the first step of control variables. In contrast to for-profits and controlling for all other variables, non-profit and cooperative employees obtained, on average, .34 and .56 points higher on organizational influence, respectively (please see Table 44 below).

Table 44: Multiple Regression Analysis Summary for Individual-Level Factors and Auspice Influence Over Organizational Decision & Actions

Variable	<i>B</i>	<i>Adjusted! SE B</i>	β
Step 1: Demographics/Individual Level Factors			
Age			
24 and Under	.89	.27	.11***
25 to 34	.87	.23	.13***
35 to 44	.46	.25	.06*
45+ (reference)	---		
Education (any field)			
Some Post Graduate/No Degree	1.29	.19	.18***
Bachelor's Degree or Higher	1.33	.24	.15***
High School Grad. or less (ref.)	---		
Years in Childcare Field			
3 to 10 years	.75	.19	.11***
10+ years	1.57	.26	.21***
Less than 1 to 3 years (ref.)	---		
Years at Current Center			
3 to 10 years	.71	.16	.10***
10+ years	1.41	.28	.14***
Less than 1 to 3 years (ref.)	---		
Step 2: Auspice			
Non-Profit	.34	.16	.05*
Cooperative	.56	.20	.06**
For-Profit (reference)	---		
Constant	10.02	.31	---

Note 1: !Adjusted *SE B* reflects the Hayes-Cai heteroskedasticity consistent standard errors.

Note 2: $R^2 = .099$ for Step 1; $R^2 = .102$ for Step 2; $\Delta R^2 = .003$ for Step 2 ($p = .013$). * $p < .05$; ** $p < .01$; *** $p < .001$.

Note 3: $n = 2,453$.

4.7. Turnover/Intentions to Leave

4.7.1. Working at Current Center in One Year

As evidenced in Table 45 below, Model 1 demonstrates a highly significant ($p < .001$) effect of auspice on intentions to remain at the current center in the coming year, with auspice accounting for approximately 3.4% of the variance in the outcome. And, model 2 increases the explanatory power of the model further by now accounting for approximately 12.8% of the total variance. The odds of remaining at the current center in the coming year among non-profit and cooperative employees were found to be 1.84 times (or 84%) and 1.99 times (or 99%) greater, respectively, than among for-profit employees, even after controlling for age, education, years in childcare field, and years at current center.

Table 45: Results from Two Logistic Regressions Predicting Employee Intentions to Remain at the Current Center in Coming Year

Variable	B	SE	Model 1			B	SE	Model 2		
			<i>p</i>	OR	CI			<i>p</i>	OR	CI
Constant	.77	.08	---	---	---	1.32	.25	---	---	---
Auspice										
Non-Profit	.73***	.10	<.001	2.08	1.70 – 2.55	.61***	.11	<.001	1.84	1.48 – 2.30
Coop (base = For-Profit)	.85***	.14	<.001	2.33	1.76 – 3.09	.69***	.15	<.001	1.99	1.48 – 2.68
Age										
24 and Under						-.87***	.23	<.001	0.42	0.27 – 0.65
25 to 34						-.72***	.21	<.001	0.49	0.33 – 0.73
35 to 44 (base = 45+)						-.43*	.22	.05	0.65	0.42 – 0.99
Education (any field)										
Some Post Graduate/No Degree						-.28	.15	.07	0.76	0.56 – 1.02
Bachelor's Degree or Higher (base = High School Grad or less)						-.69***	.18	<.001	0.50	0.35 – 0.71
Years in Childcare Field										
3 to 10 years						.13	.14	.35	1.14	0.87 – 1.50
10+ years (base = less than 1 to 3 years)						.25	.19	.19	1.29	0.88 – 1.89
Years at Current Center										
3 to 10 years						.69***	.13	<.001	2.00	1.56 – 2.57
10+ years (base = less than 1 to 3 years)						1.15***	.27	<.001	3.15	1.87 – 5.32
-2LL			2742.58					2458.18		
χ^2			59.23, <i>df</i> =2, <i>p</i> <.001					222.58, <i>df</i> =11, <i>p</i> <.001		
Nagelkerke pseudo <i>r</i> ²			3.4%					12.8%		
Hosmer & Lemshow			<i>p</i> = 1.00					<i>p</i> = .689		
Classification Accuracy			78.3%					78.9%		

Note 1: **p* < .05; ***p* < .01; ****p* < .001.

Note 2: Model 1, *n* =2679; Model 2, *n* =2568.

4.7.2. Working in Childcare Field in 3-Years

Model 1 demonstrates a highly significant ($p < .001$) effect of auspice alone on intentions to remain in the childcare field. Model 2 increases the explanatory power of the model further by now accounting for approximately 4.6% of the total variance in the outcome. And, the odds of remaining within the childcare field in the coming three years among non-profit and cooperative employees were found to be 1.46 times (or 46%) and 1.60 times (or 60%) greater, respectively, than those found among for-profit employees, even after controlling for age, education, years in childcare field, and years at current center (please see Table 46 below).

Table 46: Results from Two Logistic Regressions Predicting Employee Intentions to Remain in Childcare Field in Coming 3-Years

Variable	Model 1					Model 2				
	B	SE	<i>p</i>	OR	CI	B	SE	<i>p</i>	OR	CI
Constant	.92	.08	---	---	---	.97	.21	---	---	---
Auspice										
Non-Profit	.43***	.10	<.001	1.54	1.25 – 1.89	.38**	.11	.001	1.46	1.18 – 1.82
Coop	.48***	.14	<.001	1.62	1.24 – 2.13	.47**	.15	.001	1.60	1.20 – 2.14
(base = For-Profit)										
Age										
24 and Under						-.22	.19	.27	0.81	0.55 – 1.18
25 to 34						-.12	.16	.45	0.88	0.64 – 1.22
35 to 44						.28	.18	.11	1.32	0.94 – 1.87
(base = 45+)										
Education (any field)										
Some Post Graduate/No Degree						.03	.14	.81	1.04	0.79 – 1.36
Bachelor's Degree or Higher						-.67***	.16	<.001	0.51	0.37 – 0.71
(base = High School Grad or less)										
Years in Childcare Field										
3 to 10 years						.06	.14	.67	1.06	0.80 – 1.41
10+ years						.15	.19	.42	1.17	0.80 – 1.70
(base = less than 1 to 3 years)										
Years at Current Center										
3 to 10 years						.10	.12	.41	1.11	0.87 – 1.42
10+ years						.15	.22	.48	1.16	0.76 – 1.78
(base = less than 1 to 3 years)										
-2LL			2814.52					2637.34		
χ^2			19.88, <i>df</i> =2, <i>p</i> <.001					78.47, <i>df</i> =11, <i>p</i> <.001		
Nagelkerke pseudo <i>r</i> ²			1.1%					4.6%		
Hosmer & Lemshow			<i>p</i> =1.00					<i>p</i> =.07		
Classification Accuracy			77.2%					77.2%		

Note 1: **p* < .05; ***p* < .01; ****p* < .001.

Note 2: Model 1, *n* = 2644; Model 2, *n* = 2528.

4.8. Job Stability

The demographic/individual-level factors were significantly associated ($p < .001$) with the outcome, accounting for 2.9% of the variance in job stability. Those with 3-to-10 and 10 or more years at the current center had average job stability scores .23 and .38 points (on a 5-point scale, indicated greater job stability) higher than those with 1-to-3 years at the current center and controlling for all other variables. Finally, auspice was *not* significantly associated with the outcome (R-squared change = .000, $p = .78$) over and above the first step of control variables (please see Table 47 below).

Table 47: Multiple Regression Analysis Summary for Individual-Level Factors and Auspice Predicting Perceptions of Job Stability

Variable	<i>B</i>	<i>SE B</i>	β	<i>p</i>
Step 1: Demographics/Individual Level Factors				
Age				
24 and Under	.25	.08	.10**	.001
25 to 34	.22	.06	.11**	.001
35 to 44	-.02	.07	-.01	.75
45+ (reference)				
Education (any field)				
Some Post Graduate/No Degree	-.02	.06	-.01	.72
Bachelor's Degree or Higher	-.002	.07	-.001	.98
<i>High School Grad. or less</i> (ref.)				
Years in Childcare Field				
3 to 10 years	.08	.06	.04	.21
10+ years	.21	.08	.10*	.01
<i>Less than 1 to 3 years</i> (ref.)				
Years at Current Center				
3 to 10 years	.23	.05	.11***	>.001
10+ years	.38	.08	.13***	>.001
<i>Less than 1 to 3 years</i> (ref.)				
Step 2: Auspice				
Non-Profit	-.03	.05	-.02	.48
Cooperative	-.02	.06	-.01	.72
<i>For-Profit</i> (reference)				
Constant	3.65	.09	---	---

Note 1: $R^2 = .032$ for Step 1; $R^2 = .032$ for Step 2; $\Delta R^2 = .000$ for Step 2 ($p = .78$).

Note 2: * $p < .05$; ** $p < .01$; *** $p < .001$.

Note 3: $n = 2,595$.

SECTION 5: FINDINGS FROM RESEARCH QUESTION 5

The final research question explored the extent to which auspice predicted (i) turnover/intentions to leave and (ii) level of job security, controlling for individual-level factors (e.g., age); gross hourly wages; satisfaction with pay/benefit/promotional opportunities; unionization; promotional opportunities; professional development; the nature of the work; co-worker and supervisory relationship satisfaction; workplace social capital; organizational influence and decision-making

practices; and, quality of the work situation. A summary of findings is presented for each of the outcomes of interest below.

5.1. Working at Current Center in One Year

In each of the successive models, there is a noted increase in the explanatory power from 3.4% in Model 1 to 29.8% in Model 4. Within the first three models, although the overall effect of auspice decreased slightly, it remained significant ($p < .05$). However, after accounting for the overall 22 additional factor scores, the overall effect of auspice was no longer significant in Model 4. Eight factors did, however, remain significant, with particularly strong associations found among the following and intentions to remain at the current center in the coming year--controlling for all other factors (please see Tables 48 & 49 below; please note that the data presented in Table 48 were also presented in Table 45 above; these data are presented again herein to display the *changes* in coefficients as blocks were conceptually added, as well as the increasing explanatory power of the fuller models):

- The odds of *not* remaining at the current center in the coming year among those aged 24 and under and 25-to-34 were now found to be 2.56 times (or 156%) and 1.79 times (or 79%) greater, respectively, than respondents' aged 45 and above.
- The odds of *not* remaining at the current center among those with a Bachelor's degree or higher was found to be 1.72 times (or 72%) greater than those with a high school diploma or less.
- The odds of remaining at the current center in the coming year among those with 3 to 10 and 10+ years at the current center were now found to be 1.98 times (or 98%) and 3.50 times (or 250%) greater, respectively, than those with less than 1-to-3 years at the current center.
- A 1 SD ($SD = 2.18^{47}$) increase in pay/benefit/promotion satisfaction scores increased the odds of remaining at the current center in the coming year by a factor of 1.36⁴⁸ (or by 36%).
- 1 SD ($SD = 1.74^{49}$) increase in co-worker satisfaction scores increases the odds of remaining at the current center in the coming year by a factor of 1.19⁵⁰ (or by 19%).
- 1 SD ($SD = .44^{51}$) increase in work situation satisfaction scores increases the odds of remaining at the current center in the coming year by a factor of 1.05⁵² (or by 5%).

⁴⁷ $SD = SE\sqrt{N}$; $.05\sqrt{1894} = 2.18$

⁴⁸ $\text{Log Odds} = B(SD) \rightarrow \text{LogOdds} \rightarrow e^{\log \text{odds}} \rightarrow \text{OR}$; $.14(2.18) = .31 \rightarrow e^{.31} = 1.36$

⁴⁹ $SD = SE\sqrt{N}$; $.04\sqrt{1894} = 1.74$

⁵⁰ $\text{Log Odds} = B(SD) \rightarrow \text{LogOdds} \rightarrow e^{\log \text{odds}} \rightarrow \text{OR}$; $.10(1.74) = .17 \rightarrow e^{.17} = 1.19$

⁵¹ $SD = SE\sqrt{N}$; $.01\sqrt{1894} = .44$

⁵² $\text{Log Odds} = B(SD) \rightarrow \text{LogOdds} \rightarrow e^{\log \text{odds}} \rightarrow \text{OR}$; $.11(.44) = .05 \rightarrow e^{.05} = 1.05$

Table 48: Results from Models 1 & 2 for Logistic Regressions Predicting Employee Intentions to Remain at Current Center in Coming Year

Variable	Model 1					Model 2				
	B	SE	p	OR	CI	B	SE	p	OR	CI
Constant	.77	.08	---	---	---	1.32	.25	---	---	---
Auspice										
Non-Profit	.73***	.10	<.001	2.08	1.70 – 2.55	.61***	.11	<.001	1.84	1.48 – 2.30
Coop (base = For-Profit)	.85***	.14	<.001	2.33	1.76 – 3.09	.69***	.15	<.001	1.99	1.48 – 2.68
Age										
24 and Under						-.87***	.23	<.001	.42	0.27 – 0.65
25 to 34						-.72***	.21	<.001	.49	0.33 – 0.73
35 to 44 (base = 45+)						-.43*	.22	.05	.65	0.42 – 0.99
Education (any field)										
Some Post Graduate/No Degree						-.28	.15	.07	.76	0.56 – 1.02
Bachelor's Degree or Higher (base = High School Grad or less)						-.69***	.18	<.001	.50	0.35 – 0.71
Years in Childcare Field										
3 to 10 years						.13	.14	.35	1.14	0.87 – 1.50
10+ years (base = less than 1 to 3 years)						.25	.19	.19	1.29	0.88 – 1.89
Years at Current Center										
3 to 10 years						.69***	.13	<.001	2.00	1.56 – 2.57
10+ years (base = less than 1 to 3 years)						1.15***	.27	<.001	3.15	1.87 – 5.32
-2LL			2742.58					2458.18		
χ^2			59.23, <i>df</i> =2, <i>p</i> <.001					222.58, <i>df</i> =11, <i>p</i> <.001		
Nagelkerke pseudo <i>r</i> ²			3.4%					12.8%		
Hosmer & Lemshow			<i>p</i> = 1.00					<i>p</i> = .689		
Classification Accuracy			78.3%					78.9%		

Note 1: **p* < .05; ***p* < .01; ****p* < .001.

Note 2: Model 1, *n* =2679; Model 2, *n* =2568.

Table 49: Results from Models 3 & 4 for Logistic Regressions Predicting Employee Intentions to Remain at Current Center in Coming Year

Variable	B	SE	Model 3			B	SE	Model 4		
	<i>p</i>	OR	CI		<i>p</i>	OR	CI			
Constant	.37	.31	---	---	---	-4.08	.57	---	---	---
Auspice										
Non-Profit	.33*	.13	.011	1.39	1.08 – 1.79	.21	.16	.22	1.22	0.89 – 1.68
Coop	.39*	.17	.02	1.47	1.06 – 2.05	.33	.21	.11	1.39	0.93 – 2.09
(base = For-Profit)										
Age										
24 and Under	-1.08***	.24	<.001	0.34	0.21 – 0.55	-.95**	.30	.001	0.39	0.22 – 0.69
25 to 34	-.84***	.22	<.001	0.43	0.28 – 0.67	-.59*	.27	.03	0.56	0.33 – 0.94
35 to 44	-.55*	.23	.02	0.58	0.37 – 0.91	-.26	.28	.36	0.77	0.44 – 1.34
(base = 45+)										
Education (any field)										
Some Post Grad/NoDegree	-.29	.17	.08	0.75	0.54 – 1.04	-.08	.20	.69	0.92	0.62 – 1.37
BA or Higher	-.69***	.20	<.001	0.50	0.34 – 0.74	-.54*	.24	.02	0.58	0.37 – 0.93
(base = HS Grad or <)										
Years in Childcare Field										
3 to 10 years	.09	.15	.53	1.10	0.82 – 1.46	.01	.18	.95	1.01	0.71 – 1.43
10+ years	.17	.20	.40	1.19	0.80 – 1.77	.10	.24	.68	1.11	0.68 – 1.78
(base = < 1-3 years)										
Years at Current Center										
3 to 10 years	.78***	.14	<.001	2.19	1.68 – 2.85	.68***	.16	<.001	1.98	1.45 – 2.71
10+ years	1.15***	.27	<.001	3.17	1.85 – 5.43	1.24***	.34	<.001	3.50	1.79 – 6.68
(base = < 1-3 years)										
Gross Hourly Wages	.03	.02	.11	1.03	0.99 – 1.08	.02	.03	.32	1.03	0.98 – 1.08
Total Pay, Benefit & Promotion Score	.28***	.04	<.001	1.32	1.23 – 1.42	.14**	.05	.002	1.15	1.05 – 1.26
Union Membership	.18	.20	.36	1.20	0.81 – 1.77	.25	.23	.27	1.29	0.82 – 2.02
(base = Non Unionized)										
Promotion Opportunities	.68***	.14	<.001	1.96	1.50 – 2.57	.26	.16	.11	1.29	0.94 – 1.76
(base = No Opportunities)										
Professional Development	.02	.12	.87	1.02	0.80 – 1.30	-.13	.15	.39	0.88	0.65 – 1.18
(base = No Professional Dev.)										
Nature of the Work						.04	.16	.80	1.04	0.76 – 1.43
(base = “other”)										
Co-Worker Satisfaction						.10**	.04	.01	1.11	1.03 – 1.19
Supervisor Satisfaction						-.01	.04	.81	0.99	0.93 – 1.06
Centralization						.05	.03	.16	1.05	0.98 – 1.12

Formalization		.04	.04	.35	1.04	0.96 – 1.13
Organizational Influence		.02	.02	.49	1.02	0.97 – 1.07
Work Situation Satisfaction		.11***	.01	<.001	1.11	1.08 – 1.14
Work Environment Satisfaction		-.05	.04	.16	.95	0.88 – 1.02
-2LL	2223.03				1599.14	
χ^2	322.60, $df=16$, $p < .001$				392.52, $df=24$, $p < .001$	
Nagelkerke pseudo r^2	19.2%				28.8%	
Hosmer & Lemshow test	.02				.35	
Classification Accuracy	80.0%				82.1%	

Note 1: * $p < .05$; ** $p < .01$; *** $p < .001$.

Note 2: Model 3, $n = 2423$; Model 4, $n = 1894$.

5.2. Working in Childcare Field in Three Years

In each of the successive models, there is a noted increase in the explanatory power from 1.1% in Model 1 to 18.8% in Model 4. Within the first three models, although the overall effect of auspice decreased slightly, it remains significant ($p < .05$). Following the inclusion of factors in Model 3, the overall effect of auspice was no longer significant and remained non-significant in the fourth and final model. Following the inclusion of 24 total factors in Model 4, six factors remained significant, with particularly strong associations found among the following and intentions to remain (or not) in the childcare field in the coming three years--controlling for all other factors (please see Tables 50 & 51 below; please note that the data presented in Table 50 were also presented in Table 46 above; these data are presented again herein to display the *changes* in coefficients as blocks were conceptually added, as well as the increasing explanatory power of the fuller models):

- The odds of *not* remaining within the childcare field in the coming three years among those with a Bachelor's degree or higher was found to be 1.67 times (or 67%) greater than those with a high school diploma or less.
- The odds of remaining in the childcare field in the coming three years among those unionized was found to be 1.63 times (or 63%) greater than those non-unionized.
- The odds of remaining in the childcare field in the coming three years among those noting the existence of promotional opportunities was 1.61 times (or 61%) greater than those lacking promotional opportunities.
- 1 SD ($SD = .44^{53}$) increase in work-situation satisfaction scores increases the odds of remaining in the childcare field in the coming three years by a factor of 1.04⁵⁴ (or by 4%).

⁵³ $SD = SE\sqrt{N}$; $.01\sqrt{1894} = .44$

⁵⁴ $\text{Log Odds} = B(SD) \rightarrow \text{LogOdds} \rightarrow e^{\log \text{odds}} \rightarrow \text{OR}$; $.10(.44) = .04 \rightarrow e^{.17} = 1.04$

Table 50: Results from Models 1 & 2 for the Logistic Regressions Predicting Employee Intentions to Remain Working in Childcare During Next 3 Years

Variable	Model 1					Model 2				
	B	SE	p	OR	CI	B	SE	p	OR	CI
Constant	.92	.08	---	---	---	.97	.21	---	---	---
Auspice										
Non-Profit	.43***	.10	<.001	1.54	1.25 – 1.89	.38**	.11	.001	1.46	1.18 – 1.82
Coop	.48***	.14	<.001	1.62	1.24 – 2.13	.47**	.15	.001	1.60	1.20 – 2.14
(base = For-Profit)										
Age										
24 and Under						-.22	.19	.27	.81	0.55 – 1.18
25 to 34						-.12	.16	.45	.88	0.64 – 1.22
35 to 44						.28	.18	.11	1.32	0.94 – 1.87
(base = 45+)										
Education (any field)										
Some Post Graduate/No Degree						.03	.14	.81	1.04	0.79 – 1.36
Bachelor's Degree or Higher						-.67***	.16	<.001	.51	0.37 – 0.71
(base = High School Grad or less)										
Years in Childcare Field										
3 to 10 years						.06	.14	.67	1.06	0.80 – 1.41
10+ years						.15	.19	.42	1.17	0.80 – 1.70
(base = less than 1 to 3 years)										
Years at Current Center										
3 to 10 years						.10	.12	.41	1.11	0.87 – 1.42
10+ years						.15	.22	.48	1.16	0.76 – 1.78
(base = less than 1 to 3 years)										
-2LL			2814.52					2637.34		
χ^2			19.88, <i>df</i> =2, <i>p</i> < .001					78.47, <i>df</i> =11, <i>p</i> < .001		
Nagelkerke pseudo <i>r</i> ²			1.1%					4.6%		
Hosmer & Lemshow			<i>p</i> = 1.00					<i>p</i> = .07		
Classification Accuracy			77.2%					77.2%		

Note 1: **p* < .05; ***p* < .01; ****p* < .001; ^ = approaching significance, *p* = .056.

Note 2: Model 1, *n* = 2644; Model 2, *n* = 2568.

Table 51: Results from Models 3 & 4 for the Logistic Regressions Predicting Employee Intentions to Remain Working in Childcare During Next 3 Years

Variable	Model 3					Model 4				
	B	SE	p	OR	CI	B	SE	p	OR	CI
Constant	-.01	.27	---	---	---	-3.71	.51	---	---	---
Auspice										
Non-Profit	.08	.13	.51	1.09	0.85 – 1.39	.16	.16	.30	1.18	0.87 – 1.60
Coop (base = For-Profit)	.21	.16	.20	1.23	0.90 – 1.68	.38^	.20	.06	1.46	0.99 – 2.15
Age										
24 and Under	-.29	.20	.16	0.75	0.50 – 1.12	-.19	.25	.46	0.83	0.51 – 1.35
25 to 34	-.15	.17	.38	0.86	0.62 – 1.20	-.02	.21	.92	0.98	0.64 – 1.48
35 to 44 (base = 45+)	.25	.18	.18	1.28	0.89 – 1.83	.31	.23	.16	1.37	0.88 – 2.13
Education (any field)										
Some Post Grad/No Degree	.01	.15	.97	1.01	0.75 – 1.35	.23	.18	.20	1.26	0.88 – 1.80
BA or Higher (base = HS Grad or <)	-.73***	.18	<.001	0.48	0.34 – 0.68	-.52*	.21	.02	0.60	0.39 – 0.91
Years in Childcare Field										
3 to 10 years	-.03	.15	.82	0.97	0.72 – 1.30	-.09	.18	.62	0.91	0.64 – 1.30
10+ years (base = < 1-3 years)	-.01	.20	.98	1.00	0.67 – 1.47	-.03	.24	.91	0.98	0.62 – 1.55
Years at Current Center										
3 to 10 years	.14	.13	.30	1.15	0.89 – 1.48	.07	.15	.67	1.07	0.79 – 1.44
10+ years (base = < 1-3 years)	.22	.23	.34	1.24	0.80 – 1.93	.16	.27	.38	1.18	0.70 – 1.99
Gross Hourly Wages	.06**	.02	.004	1.06	1.02 – 1.10	.06*	.02	.011	1.06	1.01 – 1.11
Total Pay, Benefit & Promotion Score	.15***	.03	<.001	1.16	1.09 – 1.24	.03	.04	.56	1.3	0.94 – 1.12
Union Membership (base = Non Unionized)	.46*	.19	.02	1.58	1.09 – 2.30	.49*	.21	.02	1.63	1.08 – 2.47
Promotion Opportunities (base = No Opportunities)	.81***	.14	<.001	2.26	1.72 – 2.30	.48**	.16	.002	1.61	1.19 – 2.19
Professional Development (base = No Professional Dev.)	.09	.12	.44	1.09	0.87 – 1.38	.04	.14	.77	1.04	0.79 – 1.38
Nature of the Work (base = “other”)						.04	.15	.81	1.04	0.77 – 1.39
Co-Worker Satisfaction						.06	.04	.13	1.06	0.98 – 1.13
Supervisor Satisfaction						.03	.03	.40	1.03	0.96 – 1.10
Centralization						-.03	.03	.29	0.97	0.91 – 1.03

Formalization					
Organizational Influence					
Work Situation Satisfaction					
Work Environment Satisfaction					
-2LL	2423.65			1792.59	
χ^2	172.62, $df=16$, $p < .001$			250.12, $df=24$, $p < .001$	
Nagelkerke pseudo r^2	10.5%			18.8%	
Hosmer & Lemshow test	$p = .07$			$p = .74$	
Classification Accuracy	77.1%			78.8%	

Note 1: ^ = *approaching* significance at .056

Note 2: Model 3, $n = 2401$; Model 4, $n = 1883$.

5.3. Job Stability

Results of the Breusch-Pagan test (Pryce, 2002) indicate the presence of heteroscedasticity (χ^2 (df=23, N = 1909) = 564.42, $p < .001$). As such the Hayes-Cai SPSS Macro (Hayes & Cai, 2007) was utilized to create the heteroskedasticity consistent standard errors presented in Table 50 below. The control variables were significantly associated ($p < .001$) with the outcome, accounting for 16.8% of the variance in job stability. Particularly strong association were found among the following variables, controlling for all other factors:

- Those with greater experience (3 years or more) reported, on average, .12 points higher on job stability than those with 1-to-3 years of experience.
- A 1 SD increase in pay/benefit/promotion scores was associated with a .14 increase in perceived job stability scores.
- Unionized employees reported, on average, .08 points lower on job stability than those non-unionized.
- A 1 SD increase in organization influence was associated with a .13 standard deviation increase in perceptions of job stability.
- A 1 SD increase in work situation satisfaction (e.g., my work gives me a sense of accomplishment) was associated with a .13 standard deviation increase in perceptions of job stability.
- Finally, entered on Step 2, auspice was also found to be significantly associated with job stability. Those working at non-profit and cooperative centers scored, on average, .11 and .06 points lower on job stability than those working at for-profit centers, controlling for all other factors.

Table 52: Multiple Regression Analysis Summary for Control Variables and Auspice Influence Over Job Stability

Variable	<i>B</i>	<i>Adjusted! SE B</i>	β	<i>p</i>
Step 1: Control Variables				
Age				
24 and Under	.16	.09	.07	.07
25 to 34	.17	.07	.09*	.02
35 to 44	-.10	.08	-.04	.21
(45+ = ref.)				
Education (any field)				
Some Post Grad/No Degree	.03	.07	.02	.62
BA or Higher	.09	.09	.03	.32
(HS Grad or < = ref.)				
Years in Childcare Field				
3 to 10 years	.02	.07	.01	.77
10+ years	.15	.08	.07	.08
(< 1-3 years = ref.)				
Years at Current Center				
3 to 10 years	.23	.06	.12***	<.001
10+ years	.38	.09	.12***	<.001
(< 1-3 years = ref.)				
Gross Hourly Wages	.003	.01	.01	.73
Total Pay, Benefit & Promotion Score	.09	.02	.14***	<.001
Union Membership	-.22	.07	-.08**	.002
(Non –Unionized = ref.)				
Promotion Opportunities	.003	.05	.001	.96
(No Promo. Opp. = ref.)				
Professional Development	.04	.05	.02	.46
(No Professional Dev. = ref.)				
Nature of the Work	-.003	.05	-.001	.96
("other" = ref.)				
Co-Worker Satisfaction	.05	.02	.08**	.003
Supervisor Satisfaction	.02	.01	.04	.16
Centralization	.01	.01	.03	.39
Formalization	.01	.01	.02	.48
Organizational Influence	.04	.01	.13***	<.001
Work Situation Satisfaction	.02	.01	.13***	<.001
Work Environment Satisfaction	.01	.01	.03	.31
Step 2:				
Auspice				
Non-Profit	-.22	.06	-.11***	<.001
Coop	-.16	.07	-.06*	.02
(For-Profit = ref.)				
Constant	1.75	.20	---	---

Note 1: !Adjusted *SE B* reflects the Hayes-Cai heteroskedasticity consistent standard errors.

Note 2: $R^2 = .168$ for Step 1; $R^2 = .175$ for Step 2; $\Delta R^2 = .007$ for Step 2 ($p = .001$).

Note 3: * $p < .05$; ** $p < .01$; *** $p < .001$.

Note 4: $n = 1909$.

CHAPTER 5: DISCUSSION

The childcare field has come to be defined by poor labor conditions: Low wages, limited--if any--benefits, and lack of advancement opportunities (e.g., Bureau of Labor Statistics, 2005; Cleveland, et al., 2007; Flanagan, Beach & Varmuza, 2013). This is particularly alarming given (i) the demonstrated association between labor conditions and the quality of services provided (e.g., Doherty, Friendly, & Forer, 2002; Goelman, Forer, Kershaw, Doherty, Lero, & LaGrange, 2006; Helburn, 1995; Whitebook, Howes & Phillips, 1990); and, (ii) the established association between quality care and outcomes for children. Higher quality care is, for example, associated with enhanced social, cognitive, and language development, as well as lower levels of remediation (e.g., Brooks-Gunn, 2003; National Institute of Child Health and Human Development Early Child Care Research Network, 1996, 2000, 2003; NICHD and Duncan 2003; Gomby & Larner, 1995; Love et al., 2003; Peisner-Feinberg, et al., 2000; Reynolds, Temple, Robertson, & Mann, 2002).

Attempting to explore said associations, several scholars have examined the extent to which organizational structure among childcare centers impacts labor conditions. This research consistently finds a labor advantage among non-profit as compared to for-profit providers in several critical domains (e.g., higher wages, improved benefits, lower staff-to-child ratios, greater social support, and lower rates of turnover) (Cleveland, 2008; Cleveland, Forer, Hyatt, Japel and Krashinsky, 2007; Cleveland & Krashinsky, 2009; Doherty, Friendly, & Forer, 2002; Sosinsky, Lord, & Zigler, 2007). Some suggest, however, that the for- vs. non-profit distinction may be too simplistic and actually masks sub/within-sector differences that may be critical to the identification of high quality models—both in terms of the services received and the conditions under which they are rendered (e.g., Morris & Helburn, 2000). And, although some preliminary sub-sector analyses, including the cooperative model, have been undertaken (Coontz & Esper, 2003; Morris & Helburn, 2000; Pestoff, 2000) they are severely limited by small sample sizes. By making use of data obtained from 2,743 staff members throughout Canada, this dissertation was able to overcome this limitation and reflects the largest analysis of differences in labor conditions among for-profit, non-profit, *and* cooperative childcare centers to date.

The fifth and final chapter is organized into five sections. The first section details key findings, organized by the guiding research questions. This is followed by a brief discussion of the limitations of the current research presented in section two. Section three outlines the implications of the current research for the childcare labor research field and theoretical discussion of caring labor more generally, which is followed by recommendations for future research in section four. And, finally, a conclusion and closing remarks—to include a review of the limits and possibilities of cooperatives—are offered in section five.

SECTION 1: KEY FINDINGS

1.1. Research Question 1

1.1.1. *Wages.* Childcare workers in the current sample earned approximately 30% *lower* wages than all workers and 21% *lower* wages than female-only workers in Canada at the time of data collection. The wage disparity is even greater when auspice is considered, with non-profit employees earning significantly higher wages than those of for-profit and cooperative centers. These findings support a large body of prior research detailing not only lower wages and benefits among childcare workers as compared to the labor market in general (CCCF & CCAAC, 1992; Kontos & Stremmel, 1988; Whitebook, Howes & Phillips, 1989; Whitebook et al., 1981; Whitebook & Sakai, 2004) but also typically higher wages among non-profit as compared to for-profit childcare centers (Cleveland, 2008; Cleveland & Krashinsky, 2004; Cleveland & Krashinsky, 2009; Doherty, Lero, Goelman & Tougas, 2000; Doherty, Friendly & Forer, 2002; Doherty et al., 2002; Friesen, 1992; Sundell, 2000; Sosinsky, Lord, & Zigler, 2007).

1.1.2. *Unionization.* Also of note were the significant disparities in unionization rates among auspices, with 1% of for-profit, 15% of non-profit, and 17% of cooperative employees reporting union representation. Such findings are particularly concerning when one considers: (i) the positive association between union membership and wages; and, (ii) the noted relationship between union density and overall reductions in income inequality (e.g., Aidt & Tzannatos, 2002; International Institute for Labour Studies, 2008; Moller, Alderson & Nielson, 2009; OECD, 2011; Sran, Lynk, Clancy & Fudge, 2013; Visser & Cecchi, 2009; Western & Rosenfeld, 2011). First, union membership has—and continues to be—associated with increased wages of workers. Based on an analysis of the Canadian Labour Force Survey, Statistics Canada (2013) reports that the 2010 hourly rate among all full-time, unionized employees was \$26.04 vs. \$22.71 for non-unionized, while full-time, unionized female-only employees earned \$25.97 vs. \$20.30 among non-unionized women. These findings mirror those noted within the United States, which suggests that in 2010 all unionized workers earned a mean hourly wage of \$26.04 vs. non-unionized workers earning \$20.46 (U.S. Census Bureau, 2013). Secondly, during the period of 1984 and 2010, Canada experienced a decline in union coverage from a high of 41.8% to 31.5% (Sran, Lynk, Clancy & Fudge, 2013), during which time there was a parallel increase in Canada's Gini coefficient⁵⁵ from 0.357 to 0.395 (OECD, 2011). A similar trend, though *considerably* more pronounced, was evidenced within the United States. During the period from 1973 to 2007, the U.S. experienced a decline in union membership in the private sector from 34% to 8% and an increase in wage inequality by more than 40% (Western & Rosenfeld, 2009).

1.1.3. *Work situation/environment satisfaction and professional development.* Consistent with previous research, *higher* levels of satisfaction with work situation (e.g., my work gives me a sense of accomplishment), satisfaction with work environment (e.g., bright/attractive center, availability of necessary equipment), and involvement in and assistance to attend professional development activities among non-profit, as compared to for-profit, employees were observed in this study (Doherty, Friendly & Forer, 2002); Leana et al., 2009; Maslach & Pines, 1977;

⁵⁵ A measure of inequality ranging from a value of 0 ("no" inequality) to 1 (maximum inequality).

Whitebook et. al., 1981)⁵⁶. The current study adds to this body of scholarship by finding that employees of cooperatives, much like those of non-profits, *also* report significantly greater degree of satisfaction/involvement/assistance than employees of for-profits centers in these domains.

1.1.4. *Communication, social support, and organizational decision-making.* Previous research has indicated that non-profits, as compared to for-profits, exhibit a greater degree of formalization and role clarification (e.g., via detailed job descriptions), more adequately clarify employee rights and responsibilities (via, for example, formal grievance procedures), provide more opportunities for staff and parental input into decisions, and evidence greater co-worker satisfaction/collegial support (Doherty, Friendly & Forer, 2002; Friesen, 1995; Leviten-Reid, 2010; Lyon & Canning, 1999). The current study supports these findings, with results indicating that for-profit employees, as compared to those of non-profits, were least likely to report regularly scheduled meetings, were most likely to attend said meetings during unpaid overtime, and reported the lowest levels of formalization (i.e., extent to which roles and responsibilities are standardized and explicit), de-centralization (e.g., extent to which others can and do have input into decision-making), and organizational decision-making. Providing further evidence to a small body of scholarship concerning the labor conditions among *cooperative* childcare workers, the current study also finds that employees of cooperatives *also* reported significantly better outcomes in each of these domains as compared to those reported by for-profit employees (Pestoff, 2000). More generally, the current study lends support to previous research that underscores the importance of supportive and non-hierarchical communication and decision-making practices between and among childcare staff and supervisors/directors (Freudenberger, 1977; Jorde-Bloom, 1988; Kontos & Stremmel, 1988; Leanna, Appelbaum & Shevchuk, 2009; Manlove, 1993, 1994; Maslach & Pines, 1977; Seiderman, 1978; Townley, Thornburg & Crompton, 1991).

1.1.5. *Cooperative advantage?* As one of the first studies to explore—via a nation-wide sample of more than 4,000 childcare workers—the labor conditions of not only non- and for-profit but also cooperative centers, the current findings make a considerable contribution to an emergent body of scholarship concerning within-sector analyses (Leviten-Reid, 2010, Pestoff, 2000). In this respect, the current study finds that cooperatives—nearly uniformly (pace: wages and payment of fees to attend professional development activities)—performed as well as non-profit centers, as compared to for-profits, in many of the domains of primary interest (e.g., wages, improvements in annual salary and benefits over past 2 years; pay, benefit, and promotional satisfaction; union representation; regularly scheduled meetings; levels of formalization and de-centralization). And, cooperative employees were *the* most likely—as compared to employees of for- and non-profits—to receive paid overtime and release time to attend meetings and professional development activities respectively, while also being the least likely to suggest they could earn more money/achieve a higher status at another center and report that providing a better salary would improve their satisfaction of working in the childcare field. These findings will be discussed further within the context of the multiple regression results.

⁵⁶ It should be noted, however, that these findings were explored further in relation to their associations with particular organizational decision-making structures/practices (e.g., non-hierarchical). An analysis of which was conducted within the current research context and will be commented upon in a later section.

1.2. Research Question 2

Overall, the current findings support previous research suggesting that for-profit, as compared to non-profit, employees tend, on average, to be less educated, younger, report fewer years working at their current center, and fewer years of experience within the childcare field in general (Cleveland & Krashinsky, 2004; Friesen, 1992; Helburn, 1995). In addition, the findings provide evidence that cooperative employees, like those of non-profit centers, tended, more generally, to be more educated, older, report more years working at their current center, and report greater experience within the childcare field as compared to employees of for-profit centers.

1.3. Research Question 3

Although previous research has explored sub-sector differences among for-and non-profit childcare centers (CCCF & CCAAC, 1992; Cleveland & Krashinsky, 2004; Cleveland & Krashinsky, 2005; Doherty, Lero, Goelman, LaGrange & Tougas, 2000; Doherty, Friendly & Forer, 2002; Whitebook, Howes, Darrah, & Friedman, 1981; Whitebook, Howes, & Phillips, 1990), the findings pertaining to research questions 3 – 5 provide some of the first sub- and within-sector multiple hierarchical regression analyses concerning the labor conditions of for-profit, non-profit, and cooperative childcare workers to date.

Of those factors predicting whether or not employees intend to remain working at the current center in the coming year, (i) gross hourly wages, (ii) overall satisfaction with pay, benefit, and promotional opportunities, and (iii) work situation (e.g., my work gives me a sense of accomplishment) emerged as the most significant within the current sample. Similarly, gross hourly wages, unionization, the presence of promotional opportunities, and overall work situation were the strongest predictors of whether or not employees would remain working in the childcare field in the coming three years. And, finally, organizational influence; work situation; unionization; pay, benefit, and promotional opportunities, and co-worker relationship satisfaction emerged as the strongest predictors of perceived job stability. These findings support previous research finding enhanced wages, promotional/advancement opportunities, and higher co-worker relationship satisfaction were associated with lower levels of turnover and burnout among childcare workers (Robinson, 1979; Whitebook, Howes, Darrah, & Friedman, 1981; Whitebook, Howes, & Phillips, 1990).

1.4. Research Question 4

In contrast to for-profit employees—controlling for age, education, years at current center, and years in childcare—employees of non-profits and cooperatives: (i) earned higher wages; (ii) were more satisfied with their pay, benefits, and promotional opportunities; (iii) reported higher assessments of their work situation (e.g., my work gives me a sense of accomplishment); and, (iv) reported higher levels of de-centralization (i.e., extent to which others can and do have input into decision-making), formalization (i.e., extent to which roles and responsibilities are standardized and explicit), and overall organizational influence.

In addition, non-profit and cooperative employees, as compared to those of for-profit and controlling for individual-level factors, were also found to have significantly *greater odds* of: (i)

unionization; (ii) asserting they would *not* earn more money/achieve a higher status by finding employment at another center; (iii) participating in professional development in the previous 12 months; and (iv) remaining at their current center in the coming year and the childcare field, more generally, in the coming three years. Finally, controlling for individual-level factors, employees of cooperatives reported significantly higher levels of satisfaction with supervisory relationships as compared to employees of for-profits.

1.4.1. *Cooperative advantage?* As noted above, cooperative employees, like those of non-profits, reported significantly better labor conditions as compared to for-profit employees. Exploring further differences within-sectors and controlling for individual-level factors, significant differences were also found between non-profit and cooperative employees within a few domains: (i) non-profit employees reported higher wages (\$.55/hour); and, (ii) cooperative employees reported a greater degree of de-centralization (e.g., extent to which others can and do have input into decision-making) and were more likely to believe they would *not* earn more /achieve a higher status by finding employment at another center. Supporting previous research that non-profits report higher levels of de-centralization than those found among for-profits (Doherty, Friendly & Forer, 2002), the current study also finds that cooperative employees report the *highest* levels of de-centralization. These findings suggest that a so-called “cooperative advantage” (Spear, 2000) may exist specifically with respect to greater de-centralized decision-making practices (Pestoff, 2000). That is, cooperatives—even more so than non-profits as well as for-profits—appear to have made an organizational commitment to, for example, creating the conditions under which staff feel free to express their opinion, participate in determining the content of staff meetings, and make decisions about things that directly affect them. The significance of such an environment is, moreover, evidenced in research suggesting that enhanced opportunities for both staff and parental involvement in organizational decision making is associated with improved childcare quality (Doherty, Friendly & Forer, 2002; Friesen, 1995; Leviten-Reid, 2010; Lyon & Canning, 1999).

1.5. Research Question 5

With respect to employees’ intentions to *remain at the current center in the coming year*, several factors emerged as significant predictors, to include: younger age (24-and-under to 34), lower levels of education (high school diploma or less), greater tenure at the current center (3-to10+ years), greater pay/benefit/promotion satisfaction, greater co-worker satisfaction, and greater work situation satisfaction. With respect to employees’ intentions to *remain in the childcare field in the coming three years*, the following emerged as significant predictors: lower levels of education (high school diploma or less), gross hourly wages, positive assessments of promotional opportunities, union representation, and satisfaction with one’s work situation.

In general, these findings support previous research indicating that enhanced wages (and/or satisfaction therein) (e.g., Whitebook, Howes & Phillips, 1989; CCCF & CCAAC, 1992; Kontos & Stremmel, 1988; Lindsay & Lindsay, 1987), greater work experience (e.g., Mullis, Ellet & Mullis, 1986), and advancement opportunities (e.g., (Robinson, 1979; Whitebook, Howes, Darrah & Friedman, 1981) are associated with greater satisfaction and lower burnout/turnover more generally. These findings also suggest that employees who, for example, felt their work “was stimulating and challenging,” “gave them a sense of accomplishment,” and enabled them to

“make a positive difference in children’s lives” (please see Table 12 in Chapter 3 for a comprehensive list of “work situation” indicators) were significantly more likely to report an intention to remain at their current centers and in the childcare field more generally, controlling for all other factors. Thus, the current findings support previous research suggesting that the “nature of the work” (e.g., working with children) significantly contributes to enhanced job satisfaction more specifically (Kontos & Stremmel, 1988; Robinson, 1979; Whitebook, Howes, Darrah & Friedman, 1981) and intentions to remain in the field among childcare workers more generally.

Finally, those with 3 or more years of experience, aged 25-34, non-unionized, employed within for-profit centers, and reporting greater pay/benefit/promotion satisfaction, organizational influence, co-worker satisfaction, and overall work situation satisfaction (e.g., my work gives me a sense of accomplishment) evidenced the highest levels of *job stability*. Given the relative dearth of scholarly research concerning potential associations among labor conditions, individual-level factors, and perceived *job stability* among childcare workers (Wagner, 2012⁵⁷), the current findings provide some preliminary information in this regard. Based on findings from broader scholarship concerning the *job satisfaction* literature, more generally, it seems plausible that greater job satisfaction, enhanced wages, greater work experiences, and organizational influence would likely be associated with greater levels of *job stability* (CCCF & CCAAC, 1992; Kontos & Stremmel, 1988; Lindsay & Lindsay, 1987; Maslach & Pines, 1977; Mullis, Ellet & Mullis, 1986; Whitebook, Howes, Darrah & Friedman, 1981; Whitebook, Howes & Phillips, 1989). Interestingly, however, the current study also finds that employees of non-profit and cooperatives as well as those who were unionized reported *lower* levels of job stability, as compared to for-profit and non-unionized employees respectively. Although puzzling (given the positive association found among non-profit-, cooperative-, and union-status and other outcomes of interest), a possible interpretation lies in the previously noted decline in overall unionization within Canada during the period of 1984 and 2010 from 41.8% to 31.5% (Sran, Lynk, Clancy & Fudge, 2013). It may be that the lower assessments of job stability among unionized, non-profit and unionized, cooperative employees is less a proximal effect of organizational form and more a distal effect of the diminishing union sector nationwide and jobs therein. Future research should, however, explore this supposition further.

SECTION 2: LIMITATIONS

2.1. Dated Data

A significant limitation of the current research surrounds the use of data that are approximately 15 years old. These data were selected because there does not exist (to the researcher’s knowledge) another publicly available database that is able to address the outlined research questions. In particular, neither a current nor U.S.-based data set exists including indicators of labor conditions concerning for-profit, non-profit *and* cooperative childcare centers. However, a recent study—*You Bet We Still Care!*—was undertaken to provide up-to-date findings concerning the labor conditions of childcare workers throughout Canada (Flanagan, Beach &

⁵⁷ Wagner and colleagues (2012) were particularly interested in perceived stress among childcare workers. In particular, they exploring various coping strategies and report that problem-focused (vs. avoidant) was associated with the highest levels of job security.

Varmuza, 2013). As the name suggests, it is a direct follow up to the *You Bet I Care!* study (Doherty, Lero, Goelman, LaGrange, & Tougas, 2000)—the data from which were utilized herein. In order to examine potential changes in labor conditions over time, the current study utilized—nearly in their entirety—the same data collection instruments used within the YBIC! study. A brief report highlighting key findings and trends has been issued (Flanagan, Beach & Varmuza, 2013); however, sub-sector and within sector analyses have yet to be undertaken. Fortunately, in an effort to promote further analyses of these data, the Canadian government's Child Care Human Resources Sector Council has indicated that the data from the current study will be made publicly available from the Institute for Social Research at York University in April 2014. As such time, it is my intention to obtain access to the data and explore sub- and within-sector differences in *current* labor conditions.

2.2. Canadian-Based Sample

In addition, although the data were collected throughout Canada, several scholars have drawn parallels between Canada and the U.S., suggesting that the findings obtained herein are applicable within the U.S. context (Esping-Andersen, 1990, 1999; Goelman, Forer, Kershaw, Doherty, Lero, & LaGrange, 2006; Korpi, 2000). For example, in his comparison and categorization of Western welfare states, Esping-Anderson (1990, 1999) identifies Canada and the U.S. (in addition to Australia, New Zealand, and the U.K.) as “liberal welfare democracies,” in which the greater emphasis is placed on the market, as opposed to the national government, to address and provide social needs. Also, the two countries are very comparable in relation to the location of responsibility for childcare (e.g., at the state (U.S.) or province (Canada) level as opposed to national level, similar percentages of children receiving center-based care (e.g., approximately 30% in both countries), a lack of unified regulation standards, modest national/state investments in childcare resulting in a considerable reliance of family fees, and designation of small subsidy programs to increase access for low-income families (Goelman, 1992; Goelman, Forer, Kershaw, Doherty, Lero, & LaGrange, 2006).

2.3. Self-Selection Bias

There also exists the possibility of self-selection bias of higher-quality child day care centers. In an attempt to explore this possibility, the original YBIC! research team conducted a series of chi-square and t-test analyses to explore differences between participating and non-participating centers on several variables of interest. Results indicate no significant differences between the two groups in relation to the following: center care for children under 18 months ($\chi^2 = .009$, $p = .924$); center cares for children 18 months-3 years ($\chi^2 = .209$, $p = .648$); number of years the center has operated ($t = .090$, $p > .05$); mean number of paid teaching staff ($t = .950$, $p > .05$) (Doherty, Lero, Goelman, LaGrange, & Tougas, 2000, p. 18). Although suggestive of structural similarities, these findings do not assess potential differences in labor conditions more specifically. As such, future research should aim to collect some labor-related indicators (e.g., mean wages) during the initial phone screening, such that a more thorough analysis of self-selection bias may be undertaken.

2.4. Missing Data

Given the merging strategy utilized herein, some potential bias was introduced as a result of missing data. As noted in Chapter 3, an analysis of response patterns revealed a total of 96 (11.4%) and 1,382 (33.5%) cases of missing auspice data within the center and staff databases respectively. Although the overall sample size remained large ($n=748$ centers; $n=2,743$ staff surveys), the introduction of bias resulting from missing data is of concern. In an attempt to estimate the extent of bias, further analyses were conducted (please see Chapter 3, Section 2 for specific details). Of the variables of interest, significant differences were noted between the wages, job security, total co-worker satisfaction, and work environment scores of the “missing” and non-missing” data groups. Concerning wages, the valid, non-missing data group demonstrated a mean hourly wage (\$10.89) of approximately \$0.80 *less*/hour than that found within the “missing” group (\$11.69). And, job security, total co-worker satisfaction, and work environment scores of the valid, non-missing data group were *higher* than those of the missing data group (0.11 on a 5-point scale; 0.15 on an 8-point scale; and, 0.18 on an 8-point scale respectively). Although excessive power may partially explain the statistically significant differences⁵⁸ given the current sample size of 2,743 staff surveys (Meehl, 1967; Glass & Hopkins, 1984), the reader is nonetheless cautioned in interpreted findings with respect to these variables.

2.5. Data Structure Issues

As noted in Chapter 3, Section 4.4, the current findings are limited by virtue of the model imperfection encountered herein. That is, due to the constraints of the current data set (i.e., lack of site-specific data), an examination of organizational-level effects was not possible. This limitation is not unique to the current research, as previous research has also yet to explore this level of influence—as part of a larger hierarchical linear modeling (HLM) analysis approach—particularly in relation to potential differences among for-profit, non-profit, *and* cooperative childcare labor conditions (e.g., Cleveland, 2008; Cleveland & Krashinsky, 2009; Doherty, Friendly, & Forer, B., 2002; Doherty, Lero, Goelman, LaGrange, & Tougas, 2000; Goelman, Forer, Kershaw, Doherty, Lero & LaGrange, 2006). Although I attempted to account for this limitation by employing an organizational fixed-effects model (by virtue of the auspice dummy variable), the influence of each of the for-profit, non-profit, and cooperative childcare centers was *not* included. Despite this limitation, the current findings do demonstrate significant difference among for-profit, non-profit, and cooperative centers thus signaling that this is a viable line of inquiry. As such, this field of research will greatly benefit from the collection and analysis (e.g., use of HLM) of organizational-level effects in order to more accurately tease out the nested effects of individual- *and* organizational-level influence on childcare labor conditions.

2.6. Unmeasured & Omitted Variables

Finally, as with most studies, there exists some caution regarding the interpretability of findings given the lack of exhaustive data concerning the research questions of interest. Particularly given that this research is based on secondary data, the current analyses were limited by those data

⁵⁸ As suggested by Glass & Hopkins, sample size can significantly impact the significance of findings: “For example, with $n=10$ and $\alpha = .05$ for a non-directional test, a correlation of .63 is statistically significant; with $n=50$ an $r=.28$ is needed; with $n=100$, an $r=.20$; with $n=500$, an $r=.09$; with $n=1,000$, an $r=.06$; and, with $n=10,000$, an $r=.02$ is statistically significant at the .05 level” (p. 549).

originally collected during the YBIC! research project *and* the configuration limitations of the modified dataset utilized herein (Doherty, Lero, Goelman, LaGrange & Tougas, 2000). Given, for example, that the primary independent variable of interest is that of auspice—specifically for-profit, non-profit, and cooperatives—greater information regarding these auspices would have been immensely beneficial. Collection of additional, in-depth data, such as the following, would greatly benefit this area of research: What are three *most* favorable aspects of working in a for-profit/non-profit/cooperative center? What are three *least* favorable aspects of working in a for-profit/non-profit/cooperative center? What were the three most significant factors in one’s decision to work in a non-profit or cooperative vs. a for-profit center?

Also, as noted previously (Chapter 3, Section 4.4), the configuration of the current dataset limited the use of macro- and organizational-level data, which *may* have provided greater information concerning the differences in labor conditions reported among for-profit, non-profit, and cooperative childcare centers. For example, despite the fact that several previous studies exploring childcare quality have controlled for the influence of jurisdiction (province/territory, state) (e.g., Cleveland, 2008; Cleveland & Krashinsky, 2009; Doherty, Friendly, & Forer, B., 2002; Doherty, Lero, Goelman, LaGrange, & Tougas, 2000; Goelman, Forer, Kershaw, Doherty, Lero & LaGrange, 2006), as childcare funding is largely determined therein, the inclusion of such data were not possible herein. In order to obtain a more refined understanding of the extent to which governmental funding may impact childcare labor conditions (e.g., wages and benefits), the inclusion of jurisdiction in subsequent research is highly recommended.

And, based on her analysis of associations among organizational form (for-profit, non-profit, and cooperatives), parental involvement, and the quality of care in childcare, Leviten-Reid (2010) points out several organizational-level variables that may help to explain the differences noted in the current study, namely: in-kind contributions; budget allocations; and, size and source of cash revenue. More specifically, she finds that non-profit and cooperative childcare centers receive a *greater* percentage of in-kind donations (e.g., subsidized or free rent, administrative support), allocate a greater percentage of their budgets to staff salaries and benefits, and receive a higher percentage of their revenue from governmental grants than do for-profit centers. And, based on their analysis of childcare labor quality, Doherty and colleagues (2002) also found that non-profits had greater access to resources (e.g., in-kind, government grants) than for-profit childcare centers; however, these differences were still *not* enough to account for the quality advantage found among non-profit centers⁵⁹. Given these findings, further examination of the influence of these variables—and the ways in which they *may* help to account for the labor advantage found among non-profit and cooperative childcare centers in the current research—is highly recommended in future research.

⁵⁹ It should be noted that Doherty and colleagues (2002) did not analyze cooperatives.

SECTION 3: IMPLICATIONS

3.1. *Promotion of Non-Profit and Cooperative Models of Childcare*

Findings from the current study indicate that non-profit and cooperative childcare centers outperform for-profit centers with respect to several key indicators of labor quality, to include: higher wages, greater rates of unionization, and a greater degree of de-centralized decision making practices.

3.1.1. *Enhanced wages.* The childcare field has come to be defined by chronically low wages (e.g., Barnett, et al., 2009; Bureau of Labor Statistics, 2005; Cleveland, et al., 2007; Herzenberg, Price & Bradley, 2005; Whitebook & Sakai, 2004; Whitebook & Ryan, 2011), a reality which is, moreover, thought to directly contribute to an annual turnover rate (30%) *twice* that of most occupations (Deery-Schmitt & Todd, 1995; Doherty-Derkowski, 1995; Whitebook & Sakai, 2003). And, research suggests that high turnover threatens to disrupt the trusting, secure relationships needed by infants and children to foster healthy social, emotional, and academic development (Howes & Hamilton, 1993; Friesen, 1992; Love et al., 1993; Scarr, Eisenberg, & Deater-Deckard, 1994; Whitebook, Howes, & Phillips, 1990). However, a large body of previous research (Cleveland, 2008; Cleveland & Krashinsky, 2004; Cleveland & Krashinsky, 2009; Doherty, Lero, Goelman, LaGrange & Tougas, 2000; Doherty, Friendly & Forer, 2002; Doherty et al., 2002; Friesen, 1992; Sundell, 2000; Sosinsky, Lord, & Zigler, 2007) *and* the current study finds enhanced wages among non-profit as compared to for-profit childcare centers. As such, it is recommended that greater attention be placed on the organizational configuration of childcare. More specifically, the re-alignment of legislative⁶⁰ and fiscal support to promote the expansion and/or development of non-profit and cooperative models of care may prove immensely beneficial to enhancement of: (i) the labor conditions of childcare workers (e.g., wages) *and* (ii) the overall developmental well-being of the estimated 62% of non-school aged children who are in need of time-and labor-intensive non-custodial care (Capizzano & Adams, 2004; National Association of Child Care, 2010; Park-Jadotte, Golin & Gault, 2002).

3.1.2. *Reappraisal of current union legislation.* This study provides additional empirical evidence of a protective affect of unionization on childcare labor conditions—particularly wages (Brooks, 2003; Whitebook, Howes, & Phillips, 1990). Despite this finding and the larger body of scholarship demonstrating an association between union membership and increased wages, data indicate a rapid and in some cases (e.g., U.S.) precipitous decline in union membership and a concomitant rise in wage inequality within the Western world (e.g., Krugman, 2009; Mitukiewicz & Schmitt, 2012). For example, based on a analysis of the U.S. Current Population Survey from 1973 to 2007, Western and Rosenfeld (2009) report that the “decline in organized labor explains a fifth to a third of the growth in inequality [in the US]” (p. 513). Within the U.S. childcare field more specifically, scholars suggest little or no increase in the estimated 5% of

⁶⁰ In particular, further support of H.R. 2437--Creating Jobs Through Cooperatives Act of 2013—introduced by Congressman Chaka Fattah (D-PA) on June 20, 2013 in the House of Representatives (H.R. 2437) will enable the further support and development of cooperatives. In particular, this legislation would foster the establishment of a program within the U.S. Department of Housing and Urban Development to provide funding (e.g., revolving loan fund to provide start-up capital and support), training, and on-going support of cooperatives.

unionized center-based care providers reported in 1990 (Whitbook, Gomby, Bellm, Sakai & Kipnis, 2009; Whitebook, Howes, & Phillips, 1990), despite some recent efforts towards the unionization of *home*-based childcare centers (Chalfie, Blank, & Entmacher, 2007). Of particular concern with respect to declining unionization overall has been the passage or proposed passage of “restrictive/regressive” labor laws” (e.g., back-to-work legislation, right-to-work legislation, wage freezes, impeding the ability of union to organize via, for example, the restriction of certification processes), which generally suspend or, at times, deny collective bargaining rights to unions (OECD, 201; Sran, Lynk, Clancy & Fudge, 2013). As such, it is recommended that greater legislative attention be brought to the reversal or reappraisal of restrictive laws, such that supportive union legislation (e.g., as proposed within the U.S. Employee Free Choice Act and championed by President Obama during his election campaign) may likely reinvigorate unionization, enhance wages, and address rising income inequality, particularly within the childcare sector.

This recommendation is not, however, made without a cautionary note. In particular, there exists some concern regarding the ways in which unions may impact the quality of services provided, particularly given restrictions on the firing of unionized employees (even those potentially deemed as “low-performing”) (Donahue, 2008). As such, further empirical examination of the impact of union-membership on labor conditions (e.g., wages), as well as the *quality* of childcare services provided is recommended. In doing so, a more systematic analysis of the ways in which unions may or may not be an effective mechanism through which to enhance the labor conditions of childcare workers—in particular—and service quality is made possible.

3.1.3. *Promotion of de-centralized decision making practices.* The current study finds that non-profit, *particularly* cooperative, childcare centers demonstrate significantly higher levels of de-centralized decision making than those found within for-profit centers. That is, employees of non-profit and cooperative centers are more likely to report, for example, that, their directors’ value everyone’s input for major decisions, they are free to express their opinions, and they are encouraged to be self-sufficient in making decisions. Such non-hierarchical, de-centralized decision making structures are, moreover, shown to be positively associated with higher quality childcare (Doherty, Friendly, & Forer, 2002; Friesen, 1995; Lyon & Canning, 1999). Based on this, it is recommended that greater attention be brought to the organizational decision-making practices of childcare centers. That is, governing boards and center directors are encouraged to assess the current decision-making climate to determine the extent to which de-centralized practices are currently being utilized. Such an assessment and subsequent administrative changes towards greater de-centralization will likely enhance not only the quality of childcare labor but also childcare services that are provided to children and families. Implementation of said changes appears, moreover, possible without the need for significant organizational or legislative restructuring or the influx of additional operating funds: a positive outcome for *all* involved.

3.2. Education Levels and Intentions to Remain in the Childcare Field: Quality Implications

Results indicate that a lower level of education (i.e., high school diploma or less), as compared to a bachelor’s degree or higher, was a significant predictor of one’s intention to remain at their current center and within the childcare field more generally. That is to say, more highly educated

staff members were less likely to suggest an intention to remain working at their current center and within the childcare field. This findings is particularly alarming given the considerable body of research reporting positive associations between *higher* levels of staff education and positive outcomes for children (e.g., language, cognition and math scores) (Bueno, Darling-Hammond & Gonzales, 2010; Clarke-Stewart, Vandell, Burchinal, O'Brien & McCartney, 2002; Frede, Jung, Barnett & Figueras, 2007; Frede, Jung, Barnett, Lamy & Figueras, 2009; Goelman, Forer, Kershaw, Doherty, Lero, LaGrange, 2006; Gormley, 2008; Gormley, Gayer, Phillips & Dawson, 2005; Howes, Whitebook & Phillips, 1992; Kipnis, Whitebook, Almaraz, Sakai & Austin, 2012; Whitebook, 2003; Whitebook & Ryan, 2011). Given said associations, several scholars within the early childhood education field advocate that a bachelor's degree (ideally within early childhood education) should become the standard within the sector (Kipnis, Whitebook, Almaraz, Sakai & Austin, 2012; Whitebook & Ryan, 2011). However, a longitudinal analysis of the U.S. Current Population Survey finds a steady *decline* in the education levels of early childhood educators (Herzenberg, et al., 2005), with 43% holding a BA or higher between 1983-1985 as compared to only 30% holding a BA or higher between 2002-2004.

Given such findings, it is recommended that further policy and research attention be brought to exploring the trend in declining education of early childhood educators, with a particular focus on its reversal. Fortunately, the groundwork towards such efforts has already begun at the U.C. Berkeley Center for the Study of Child Care Employment. Beginning in 2007, the Center began a 5-year longitudinal study—*Learning Together*—attempting to understand barriers to and enhance opportunities for current early care and education (ECE) workers to obtain bachelor's degrees. Central to their findings is an emphasis on the “context” or environment in which graduates are working (Kipnis, Whitebook, Almaraz, Sakai & Austin, 2012). That is, will more highly educated ECE staff be able to apply their enhanced knowledge and expertise if their work environment is characterized by, for example: “...insufficient staffing, staff turnover, lack of paid personal or sick days, inadequate training of co- workers, inadequate director education and training, lack of paid planning and preparation time, and poor access to health care services” (Kipnis, Whitebook, Almaraz, Sakai & Austin, 2012, p. 4)? Exploring the *connection* of “teacher competencies with credentials and the quality of environments in which teachers learn and work” (Whitebook & Ryan, 2001, p.1) is, thus, a critical area in need of further research. Within policy circles, it is recommended that greater fiscal support be allocated not only to research efforts but also programming that will further support the attainment of higher education among ECE workers *and* their retention within the field, for example: enhanced opportunities for financial aid, flexible course offerings, development of “cohort” groups to enhance peer support during and after graduation, continued mentoring, educational pay incentives, (re)investment in two-, four-, and graduate-level ECE educational programs, and a system of grants that foster continuing education opportunities (Kipnis, Whitebook, Almaraz, Sakai & Austin, 2012; Whitebook et al., 2009).

3.3. A Call to Move Beyond the For- vs. Non-Profit Dichotomy

A central contribution of the current study is its account of sub-sector differences. That is, the dissertation not only takes up the question of whether or not differences exist between non- and for-profit childcare centers but also the ways in which these auspices are similar to or distinct from cooperatives with respect to labor conditions. As noted above, this study finds that

cooperative employees, like those of non-profits, report significantly better labor conditions as compared to for-profit employees. And, within multiple regression models controlling for individual-level factors, cooperatives even out-perform non-profits with respect to de-centralized decision making practices, which have been found to be positively associated with childcare quality (Doherty, Friendly & Forer, 2002; Friesen, 1995; Leviten-Reid, 2010; Lyon & Canning, 1999). Given these findings and a growing call for sub-sector analyses of childcare and other caring labor (e.g., elder care) (Leviten-Reid, 2010; Leviten-Reid & Hoyt, 2009), further quantitative and qualitative examination of sub-sector (e.g., cooperatives, church-based, university-affiliated, single vs. multiple site for-profits, etc.) is recommended. In so doing, a more refined analysis of those organizational configurations, policies, and practices most associated with enhanced labor conditions *and* quality services is possible, thus allowing for the evidenced-based targeting of those areas that will have the greatest return on investment.

3.4. Enhancing the Theoretical Dialogue on Caring Labor.

Given the transformation of the caregiving landscape over the past 40 years, with women increasingly entering the paid labor force, feminist scholars of care have questioned the terms under which caring labor is currently configured. That is, several scholars have questioned: now that [most often] women are no longer providing care for children (elders, etc.) in their homes without compensation, who *is* providing this care *and* on what terms? A central concern within this scholarship is the increasing trend towards the de-familization and marketization of care, and the ways in which the shape, form, and character of caring is thus altered by entering the market (Glenn, 2000; Held, 2002). Virginia Held, for example, raises a critical eye towards the priorities and norms of various for-profit organizations and the ways in which they may contradict or threaten the terms under which care is ideally rendered. She argues that it is a question of *priority*; that is “efficient management and high productivity”—the goals of for-profit enterprises based on their responsibility to shareholders to maximize profit—are likely to take precedence and/or supercede “independent thought or social responsibility” (p. 27). She goes on to suggest that looking to and exploring the possibility of, for example, cooperative or not-for-profit organizations could assuage many of the concerns associated with for-profit care provision. Unlike for-profit enterprises, she argues, cooperatives in particular “would not be governed by market principles...and [they] might value care in entirely appropriate ways” (2002, p. 24).

Findings from the current study lend empirical support to Held’s (2002) question of “priority,” and the ways in which caring labor is impacted by entering the market. That is, the current study finds that non-profit and cooperative centers appear to “value” caring labor (and, arguably, its relationships to the quality of services provided) to a greater extent than do for-profit centers, as evidenced by: higher wages; greater employee satisfaction with pay, benefits, and promotional opportunities; better assessments of work situation (e.g., my work gives me a sense of accomplishment); higher levels of de-centralization (i.e., extent to which others can and do have input into decision-making), formalization (i.e., extent to which roles and responsibilities are standardized and explicit), and overall organizational influence; as well as, greater odds of unionization, participation in professional development, and intentions to remain working in the childcare field.

SECTION 4: FUTURE RESEARCH

4.1. Subsequent Analyses of You Bet We Still Care! Data

Following the release of the *You Bet We Still Care!* study data, expected April 2014, additional analyses of sub- and within-sector differences in the *current* labor conditions of childcare workers throughout Canada will be undertaken. The guiding research questions of the current dissertation will directly inform the follow-up analyses, with special attention drawn to potential changes in conditions over time and the implications thereof.

4.2. Further Sub-Sector Research

The finding that cooperatives performed as well as non-profits with respect to labor conditions, and even out-performed non-profits with respect to the important domain of de-centralized decision making underscores the need for further sub-sector analyses (Coontz & Esper, 2003; Morris & Helburn, 2000; Leviten-Reid, 2010; Perry & Rainey, 1988; Pestoff, 2000; Sonsinky, Lord & Zigler, 2007). In doing so, greater insight may be gained into the ways in which differences in various labor conditions might more directly reflect differences in the managerial objectives across *and* within sectors (Morris & Helburn, 2002). Such that, attempting to enhance labor conditions (and the quality of care provided more distally) may actually call for a more thorough consideration, and potential reassessment, of the center's overall managerial and organizational objectives. As suggested by Morris and Helburn (2002): "...comparing sector performance should not be limited to profit sector comparisons that can mask differences in performance within the for-profit and non-profit sectors. This is true of any mixed industry analysis in which there is reason to expect sub-sector differences due to differences in managerial objectives" (p. 394).

Further research (particularly that which includes a qualitative component) would also provide greater insight into: (i) *why* it is the case that despite enhanced labor conditions cooperatives continue to remain such a small percentage of the childcare market (limits of cooperatives, more generally, is offered in the concluding section); and, (ii) potential barriers—real or perceived—to the further development of this model.

4.3. Current U.S.-Based Assessment of Childcare Labor Conditions

Although the *You Bet We Still Care!* study provides a thorough, contemporary analysis of childcare labor conditions within Canada (Flanagan, Beach & Varmuza, 2013), a study of this magnitude has not been undertaken within the United States since the early-to-mid 1990s (Helburn, 1995; Whitebook, Howes & Phillips, 1990). As such there exists a need for a large-scale assessment of childcare labor conditions throughout the United States. Additional smaller, regional- or state-wide studies are equally supported given that: (i) doing so will provide a cursory assessment of conditions in a more timely and cost efficient manner, and (ii) the vast majority of child care policy occurs at the state (as opposed to the federal) level. Towards these ends, several recommendations are offered.

4.3.1. *Collection of sub-sector identifiers.* Findings from the current study support the collection of sub-sector identifiers to further explore differences in the labor conditions between and among for- and non-profit childcare centers, to include but not limited to: public/municipal; for-profit: center; for-profit: chain; non-profit: parent cooperative; non-profit: worker-owned cooperative; non-profit: religiously affiliated; non-profit: university affiliated; non-profit: workplace sponsored; and, non-profit: community organization (e.g. YMCA).

4.3.2. *Collection of unionization rates.* We currently lack any national statistics regarding the percentage of early childhood educators who are unionized/work under collective bargaining rights (Whitbook, Gomby, Bellm, Sakai & Kipnis, 2009). As such, the collection of these data should be included in any small- or large-scale study.

4.3.3. *Close attention to self-selection bias.* Given the concern of self-selection of higher performing centers, it is imperative that future research collect and analyze several indicators (e.g., center size, mean teacher salary, number of children served, etc.) during the pre-screening phase of data collection, such that differences between participating and non-participating centers can be later explored in greater detail.

4.3.4. *Quality assessments.* Given previous research detailing the ways in which labor conditions impact the quality of care provided (e.g., Doherty, Friendly, & Forer, 2002; Goelman, Forer, Kershaw, Doherty, Lero, & LaGrange, 2006; Helburn, 1995; Korjenevitch & Dunifon, 2010; NICHD Early Child Care Research Network, 1996; Whitebook, Howes & Phillips, 1990; Whitebook, Howes, & Phillips, 1998), future research should continue to collect observational quality assessments of childcare settings (if even based on a smaller, random sub-sample of participating centers). In doing so, greater information regarding the associations among organizational configuration, labor conditions, and quality of care will be possible. Findings and the implications from which can thereby inform the scope and direction of contemporary organizational and legislative initiatives to enhance both childcare labor conditions and quality of services provided to children/families.

4.3.5. *Qualitative component.* Although concerns regarding cost and efficiency are always a challenge with any research endeavor, the inclusion of a qualitative component (i.e., in-depth interviews and/or focus groups) is warranted with respect to the assessment of childcare labor and quality. As with most research including such a component, this level of data often leads to a greater understanding of complex, social phenomenon.

In the case of childcare labor and quality, these data would enable researchers to better understand, for example: (i) the most significant factors in one's decision to work in a non-profit or cooperative vs. a for-profit center; (ii) what precisely explains the current finding that unionized employees of non-profit and cooperatives reported *lower* levels of job stability as compared to non-unionized, for-profit center employees—is this more a reflection of the diminishing union sector or does something else help to explain it? and, (iii) are there particular qualities of peer and supervisory support mechanisms as well as de-centralized decision-making practices that may contribute to the retention of early childhood educators? Previous large-scale studies (e.g., Doherty, Lero, Goelman, LaGrange, & Tougas, 2000; Flanagan, Beach & Varmuza, 2013, Helburn, 1995) have attempted to address this issue by, for example, including short-

answer or ranked response options on surveys. Although undoubtedly yielding useful information, a random, sub-sample of survey respondents to participate in in-depth interviews and/or focus groups would provide even greater detail and insight regarding such issues (as evidenced, for example, in the recent research of Kipnis, Whitebook, Almaraz, Sakai & Austin, 2012; Whitebook et al., 2009).

Given the ways in which researchers, practitioners, and advocates alike continue to work towards the design of a childcare market that enhances both the labor conditions (e.g., improved wages) of its employees *and* the quality of services provided to children and families, higher quality data—in relation to both scope *and* depth—will likely prove immensely beneficial.

4.4. Spotlight on Worker-Owned Cooperatives

Although the examination of worker-owner cooperatives was not possible given the lack of identifying data within the current sample (i.e., all cooperatives were pooled together), further examination of this particular cooperative form is recommended based on promising prior research within childcare and other care-related sectors. Although one of the only peer-reviewed studies to examine the labor conditions of worker-owned childcare cooperatives, Pestoff (2000) found that worker cooperatives received the highest rating on several work-related factors—most notably greater staff influence in decision making and improved wages and benefits. In contrast to previous experiences, current worker-owned cooperative staff noted considerable improvements in their labor conditions, to include: “improved possibilities to influence their own work, taking responsibly, participating in decision-making, trying their own ideas, improved contacts with parents, greater work satisfaction, improved possibility for personal development, greater shared values with colleagues, greater possibilities to improve their own work environment, and improved contact with management” (p. 58).

Within the elder care sector (demonstrating a *very* similar demographic profile of workers as that found within the childcare sector), several scholars have detailed the success of the Cooperative Home Care Associates (CHCA)—a worker-owner cooperative providing home health aid services in New York City’s South Bronx since 1986. In detailing their success in, for example, enhanced educational and advancement opportunities, wages, benefits, worker satisfaction, and overall retention, Inserra, Conway and Rodat (2002) note that the: “the worker-ownership structure was emphasized as a way to maximize wages and benefits in businesses with low profit margins, and to ensure that workers’ interests would receive priority in the business strategy of the firm.” (p. 18-9). And, as noted in Chapter 1, Majee and Hoyt (2009, 2010) have explored the ways in which worker-owned cooperatives generate trust, conceptually defined as social capital, between and among worker-owners and clients. Their research with a rural, home-care, worker-owned cooperative (CHS) suggests that the worker-owner model promotes the development and expansion of trust, conceptually defined as social capital, foundationally via an organizational commitment to cooperatives values (e.g., democratic governance, equality, solidarity). Building upon such a foundation, the authors report that involvement in the cooperative enhanced worker-owner self-confidence; greater empowerment and engagement in decision-making practices; and, more generally, the promotion of open communication (2010). And, although based on a small exploratory sample, the authors conclude by suggesting that: “CHS shows that cooperative enterprises can successfully operate locally owned people-centered businesses that create

sustainable jobs, provide needed services, and foster trust among cooperative members and within the local community” (2009, p. 459).

Also, within theoretical circles, Nancy Folbre (2008a) suggests that: “Worker-owned businesses and cooperatives offer a particularly promising model for care provision,” particularly given the ways in which they are—by design—largely local, community based entities (p. 384). Several researchers, scholars, and advocates of early childhood care/education have furthermore argued the merits of local, community-based caregiving organizations, citing their ability to be more responsive to local needs (e.g., culturally responsive services), engender the establishment of long-term relationships, and foster social capital (Cancian & Olker, 2000; Coontz & Esper, 2003; Fuller, 2007; Putnam, 1993, 1995). Given the empirical and theoretical support of this model, it is thus recommended that additional small-scale studies employing a mixed-method research design be undertaken to assess further the ways in which worker-owned cooperatives may be *uniquely* positioned to further enhance labor conditions and service quality.

SECTION 5: CONCLUSION & CLOSING REMARKS

5.1. Conclusion

The current childcare crisis is a mounting concern among families and nations throughout the global north (OECD, 2006; Smith, 2010). Labor trends suggest that women have and continue to enter the paid labor market at an increasing rate, even among those with very young children with an estimated 50% of under-ones in the U.S. in some form of childcare (Bureau of Labor Statistics, 2009; Shonkoff & Phillips, 2000). This has led to an unprecedented demand for childcare services, with more than 60% of non-school aged U.S. children in need of time-and labor-intensive non-custodial care (National Association of Child Care, 2010), the average costs of which were recently estimated to be 10% of the median income for a *two*-parent family (specifically for infant care) (Child Care Aware, 2012). Now that these services are increasingly being provided within the market, quality concerns have taken on greater importance, particularly given the noted associations between high quality care and positive social, emotional, and cognitive outcomes for children (e.g., National Institute of Child Health and Human Development Early Child Care Research Network, 1996, 2000, 2003). And, the labor conditions of childcare providers (e.g., wages, benefits, turnover, organizational decision-making practices, etc.) have consistently emerged as significant predictors of quality (e.g., Doherty, Friendly, & Forer, 2002; Goelman, Forer, Kershaw, Doherty, Lero, & LaGrange, 2006; Helburn, 1995; Whitebook, Howes & Phillips, 1990).

Despite these findings, there exists a strong body of evidence highlighting the persistently dismal labor conditions of most childcare providers (e.g., low wages, poor benefits, high rates of turnover) (e.g., Bureau of Labor Statistics, 2005; Cleveland, et al., 2007; Deery-Schmitt & Todd, 1995; Doherty-Derkowski, 1995; Whitebook & Sakai, 2004). One area of inquiry into those factors that may directly and indirectly contribute to labor quality has been the examination of the extent to which organizational structure may explain said differences. Focusing nearly exclusively on the non- vs. for-profit dichotomy, this research finds a strong non-profit labor advantage (e.g., higher wages) (e.g., Doherty, Friendly, & Forer, 2002). Delving further, preliminary research has begun to examine *sub*-sector differences among for- and non-profit childcare centers, finding that the cooperative model, in particular, demonstrates enhanced labor

conditions (e.g. improved wages and enhanced decision-making opportunities) and receives some of the highest overall quality ratings (Coontz & Esper, 2003; Morris & Helburn, 2000; Pestoff, 2000). These findings are, however, limited due to small sample sizes.

5.1.1 *Research contribution.* Guided by feminist theories of care, this dissertation overcomes the sample size limitation by utilizing data obtained from 2,743 childcare workers throughout Canada to assess the ways in which for-profit, non-profit, and cooperative childcare centers, “value” caring labor and how, in turn, this impacts labor conditions (e.g., wages, benefits, decentralized decision-making). Findings indicate that much like previous research demonstrating a non-profit labor advantage (e.g., Doherty, Friendly, & Forer, 2002), cooperatives also tend to “value” this labor to a greater extent than do for-profit centers, as evidenced by: higher wages; greater employee satisfaction with pay, benefits, and promotional opportunities; better assessments of work situation (e.g., my work gives me a sense of accomplishment); higher levels of de-centralization (i.e., extent to which others can and do have input into decision-making), formalization (i.e., extent to which roles and responsibilities are standardized and explicit), and overall organizational influence; as well as, greater odds of unionization, participation in professional development, and intentions to remain working in the childcare field. And, cooperatives in particular, noted the *highest* levels of de-centralized decision making practices, a work environment characteristic consistently shown to positively impact childcare quality (Doherty, Friendly & Forer, 2002; Friesen, 1995; Lyon & Canning, 1999). Given that such findings support continued research and development of cooperative models of childcare, a brief review of the limits and possibilities of this model is offered below.

5.2. *Limits & Possibilities of the Cooperative Model*

5.2.1. *Cooperative limitations.* As with any model of service provision, there are inherent challenges and limitations, to which cooperatives are not impervious. In particular, cooperatives are challenged to respond to decision-making difficulties, the suggested need for high levels of social capital, financial vulnerability, and the attainment of adequate political support. For example, although democratic decision-making is at once a noted strength of cooperatives, in that it ensures collective engagement in the mission and practice of the organization, it also creates some challenges. Within any agency, the need to arrive at decisions regarding immediate and long-term issues is of paramount concern; however, the need to obtain *democratic consensus* regarding those directions within cooperatives can prove time-consuming and laborious (Schmitt, 1993). As such, the delineation of clear methods through which to obtain consensus in an efficient manner appear a necessary component in the organizational development of a cooperative agency.

Also, Valentinov (2004) suggests that cooperatives necessitate a high level of social capital in order to avoid some of the noted limitations, such as decision-making difficulties. There exists a considerable challenge, therefore, in being able to accommodate the considerable amount of time needed to engender and maintain social capital within an agency. Also, in comparison to economic capital, for example, social capital is inherently limited in its “transferability” from one location to another. Though regional (and beyond) collaboration is recognized as a favorable and supportive component in developing a strong cooperative network (Fox, 2006; Harnecker, 2005), the development of local, community-based cooperative agencies that are more

adequately positioned, via their arguably smaller size and limited need for transferability, to address these challenges appears promising.

As with many “traditional” social service agencies maintaining fiscal solvency within care- and social welfare-related cooperatives (e.g., care to elders, housing) is a particularly challenging element, as many rely heavily on national and state funding/contracts to provide services. The challenge of navigating successfully shifts in funding support can, therefore, substantially impact the economic solvency of these organizations (Vanek, 2001). As such, there exists a considerable need to foster and maintain adequate political support for this model, which is understood to include both economic—in the form of low-interest loans and contracts, for example—and legislative support for their continued development (Westerdahl & Westlund, 1998). Although indeed challenging, there exist both domestic and international examples of the ways in which governmental support can foster the successful development, maintenance, and expansion of this model (as noted in Chapter 1). For example, the enactment of the Capper-Volstead Farm Credit Acts within the U.S. provided the political, economic, and technical support necessary for the successful expansion of this model—particularly within the agricultural sector. And the newly introduced *Creating Jobs Through Cooperatives Act of 2013* (H.R. 2437) will provide further support to aid in the development and expansion of cooperatives. In particular, this legislation would foster the establishment of a program within the U.S. Department of Housing and Urban Development to provide funding (e.g., revolving loan fund to provide start-up capital and support), training, and on-going support of cooperatives.

Finally, not unrelated to the more specific fiscal solvency-related concerns of cooperatives, is the perennial dilemma of low wages and benefits endemic among childcare workers. Although the current research finds that non-profit and cooperative childcare centers offer their employees greater salaries and benefits as compared to for-profit centers, the fact remains: even though enhanced, these salaries and benefits remain *low*. As noted throughout Chapter 1, scholars have long called for enhanced funding—both at the state and national level—to adequately address this issue (e.g., Whitebook & Sakai, 2004); however, positive, lasting change in this regard has been slow in the making. Recent scholarship has, however, called for a *re-framing* of lobbying, research, and advocacy efforts that underscore the connections among caring labor, capabilities enhancement, and the notion of public goods (England, 2005; England & Folbre, 1999; Folbre, 1994, 2001, 2008; National Center for the Early Childhood Work Force, 1994; Nelson, 2001). It is argued that *if* caring labor is essential to the development of capabilities of both the providers and recipients—the effects of which benefit the whole of society, *then* the State bears some responsibility to improve the terms under which caring is rendered. Although questions remain as to the *extent* of said responsibility, Paula England and Nancy Folbre (1999) have argued that the use of public education, as an example of the way in which society has previously assumed shared responsibility for this type of caring labor based on its social benefits, is a promising means through which to facilitate the socio-political shift necessary to engender positive change. They note that: “Government funding of schools is justified by the argument that we collectively benefit from a better-educated citizenry.” And, expanding the argument to caring labor more generally, they add that the “case for public support of childrearing and public subsidies for the wages of workers in caring occupations could be framed in similar terms” (p. 45).

5.2.2. Cooperative possibilities. As discussed throughout the previous section, many of the

challenges faced by cooperatives are not, necessarily, unique to this model. For example, many existing independent, non- and for-profit models struggle with obtaining adequate financial and political support, organizational management, and fiscal solvency. Interestingly, however, many cooperatives have been able to circumvent these challenges in unique and innovative ways, to include: continued education regarding the social, clinical, and economic benefits of the cooperative model; delineating clear organizational management practices to account for the unique cooperative governance principals; and, the identification of alternative, community-based funding opportunities that at once address fiscal vulnerability, increase responsiveness to local needs, and promote local community development (DeFilippis, 2004; Inserra, Conway & Rodat, 2002).

The fact that cooperatives offer several benefits, notwithstanding the noted limitations, begs the question: Why aren't they utilized to a greater extent within the U.S., particularly within the care-related sector? Although briefly, I suggest several, non-mutually exclusive, factors related to the underutilization of this model, namely: (1) the decline of union membership and associated lack of active lobbying to increase visibility and awareness within legislative circles, (2) the lack of capital and tax incentives, and (3) the lack of regional and national cooperative federations (e.g., organizing and coordinating entities).

As noted in Chapter 1, the development and utilization of cooperatives within the U.S. was significantly supported by union efforts. Many within the organized labor movement recognized cooperatives as an effective means with which to address the lack of, for example, safe and affordable housing and adequate health care. Particularly since the passage of the Taft-Hartley Act of 1947 and the Landrum-Griffin Act of 1959, however, union membership (and therefore, political strength) within the U.S. has steadily declined, as many of their negotiating strategies (e.g., limitations on striking, picketing, etc.) thus became severely restricted and/or illegal (LeBlanc, 1999). As noted by Mayer (2004) and the U.S. Bureau of Labor Statistics (2011) this decline has been significant: 28.3% of all workers (and 34.8 % of wage and salary workers) in 1954 as compared to 11.9% of all workers in 2010 reported union membership. Because unions were so effective in raising awareness of the cooperative model among their members and thereby advocating politically for their development, one casualty of declining union membership has been the associated reduction in the use of the cooperatives (Curl, 2009). Given the recent passage of statewide legislation, in Wisconsin for example, further limiting collective bargaining rights (Sulzberger, 2011) there is an increased need to reinvigorate local, state, and national support for unions.

Lack of capital and tax incentives also emerge as a rather significant obstacle to the use and further development of cooperatives. As noted in Chapter 1, although the enactment of the National Consumer Cooperative Bank in 1978 by Congress was critical in financially supporting the development of cooperatives via the provision of low-interest loans, the aid was and continues to be disproportionately earmarked for consumer cooperatives (60%), leaving only 30% for housing and a mere 10% for worker/producer cooperatives (Curl, 2009). International efforts, in for example Venezuela and Tanzania, have demonstrated, however, that the provision of zero-to-low interest loans is a *significant* catalyst to cooperative development and expansion (Bibby, 2006; Fox, 2006; Harnecker, 2005; Tanzanian Federation of Cooperatives, 2006). As such, a potential means through which to enhance capital generating possibilities among care-

related cooperatives is to increase the availability and provision of low-interest loans (Mooney & Gray, 2002). Also, via the increased visibility of cooperatives garnered from enhanced lobbying efforts, state and national tax incentives (e.g., no taxation of reserve funds and/or reduced corporation tax) could be provided (Saegert & Benitez, 2005), in addition to the development of and/or increase in contractual relationships with cooperatives in the provision of caring and other social-related services (Westerdahl & Westlund, 1998).

Not unrelated to the two aforementioned obstacles, is the lack of regional and national cooperative federations. Such entities provide not only advocacy support but also—via the collection of a small membership fee—low-interest loans and emergency financial support to smaller cooperatives, as well as collaborative and technical assistance. The efficacy of such organizations is evidenced by their widespread use within the successful cooperative development and expansion of Spain’s Mondragón Cooperative, Venezuela’s “Endogenous Development Zones” (Fox, 2006), and Tanzania’s Cooperative Reform and Modernization Programme (Bibby, 2006). Since the early 1990s, similar efforts have been underway within the U.S. For example the Network of Bay Area Worker Cooperatives (NOBAWC), a group of approximately 30 co-ops, was established to promote information and resource sharing, develop new worker co-ops, and promote community awareness and support of worker co-ops (NOBAWC, 2009). Given the success of these organizations, it has been suggested that national support of cooperatives might be *best* achieved via the provision of “technical and financial assistance to top-level or apex organizations and federations” (Birchall & Ketilson, 2009, p. 34-6).

The findings presented herein highlight the benefits and possibilities of the cooperative model to respond effectively to the increasing need for caring services. Although this model is not without its limitations, many are the very same as those encountered by current service models. If, as evidenced by the current research findings, cooperatives demonstrate enhanced labor conditions (e.g., greater de-centralized decision-making practices) that have furthermore been shown to be associated with improved quality, further research of and support for cooperative development and expansion appears warranted.

5.3. Closing Remarks

The inadequacies of current care-related policy can no longer be ignored. The labor conditions of most care workers are plagued by poor wages and mediocre—if any—social and economic benefits. Amongst those in search of caring services, problems surrounding access, cost, and quality abound. There is growing distress, for example, among families who are forced to choose between reductions in parental (most often maternal) employment, engaging in split-shift parenting, or rapidly increasing familial debt trying to purchase high-dollar-low-quality childcare, while all the while lamenting time lost with their children (Gornick & Meyers, 2003). Given such unsustainable conditions, Cancian and Olicker (2000) suggest that “many Americans may be ready to initiate a national discussion about the value of better care; they may be ready to make the political and economic commitments that are needed to achieve it” (p. 152).

Towards this end, feminist theories of care provide a fecund socio-political frame through which to re-center the discourse of care away from notions of autonomy and self-sufficiency and

towards those of *interdependence* and social connectedness. In this way, we are challenged individually and collectively to “re-envision social institutions,” such that we are able to “discover new visions of society in which caring is a central value and institutions truly facilitate caring” (Fisher & Tronto, 1990, p. 56). Such a shift, rhetorically *and* practically with continued exploration of alternative service delivery models (i.e., cooperatives), could readily engender a profound social change, a change through which, as echoed by the words of Joan Tronto (1993), “the world would look differently” precisely because “care is moved from its current peripheral location to a place near the center of human life” (p. 101).

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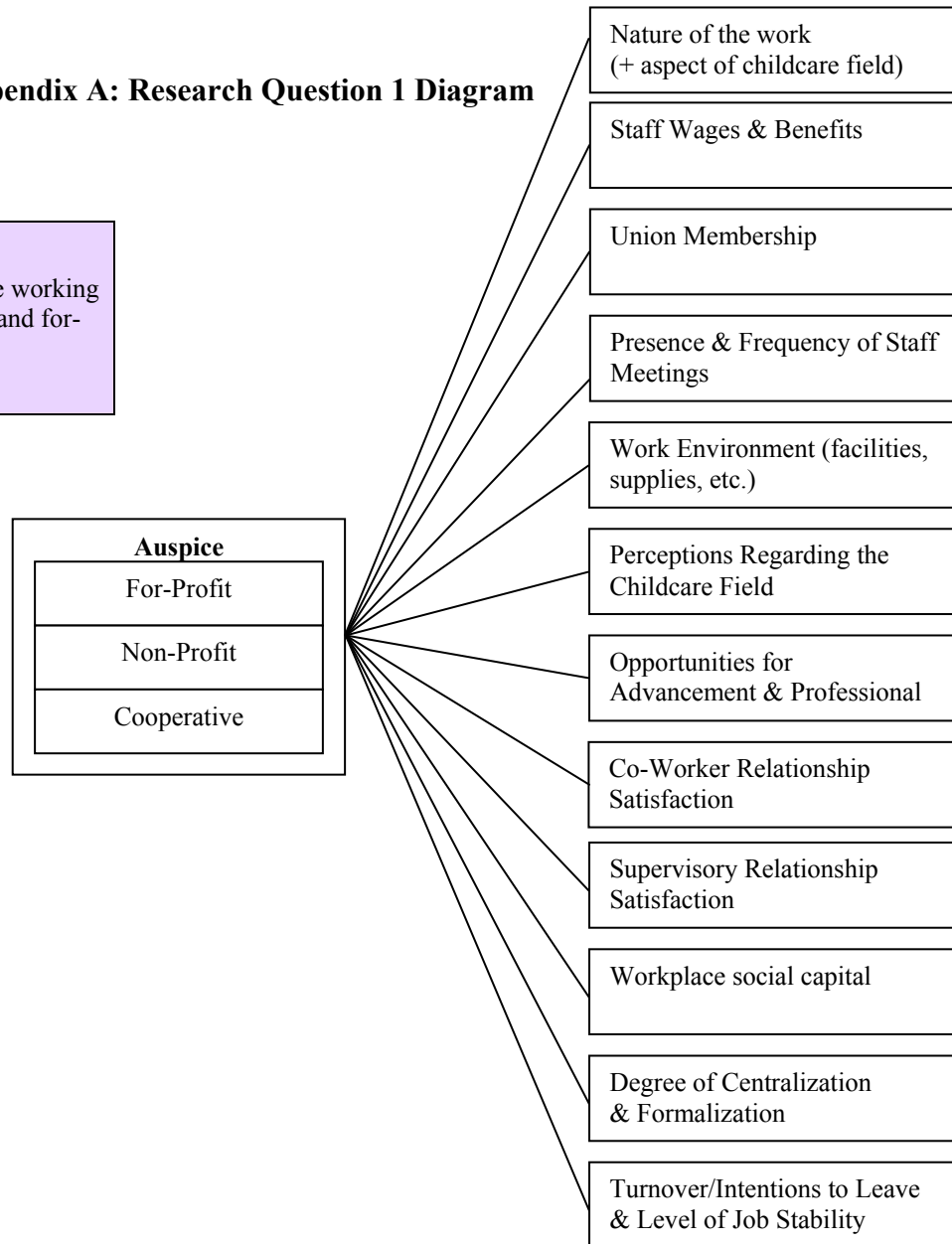
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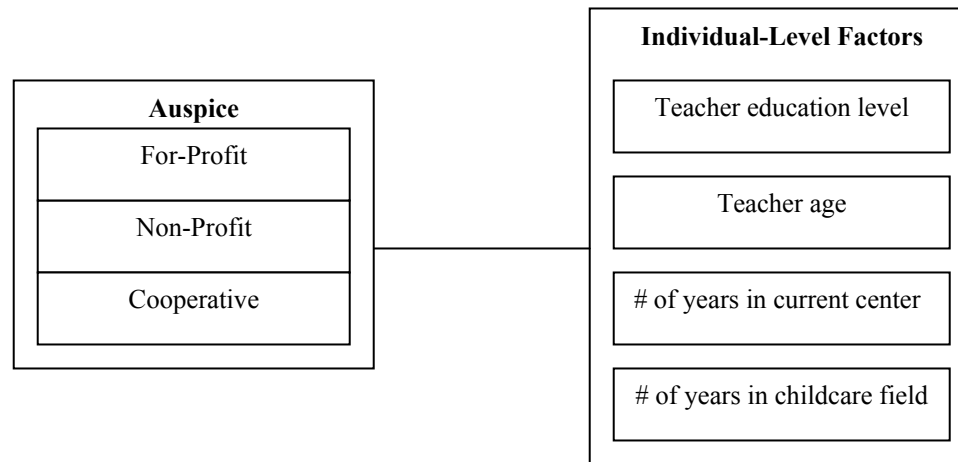
Appendix A: Research Question 1 Diagram

Research Question 1: In what ways do employee working conditions in cooperatives differ from non-profit and for-profit childcare centers?

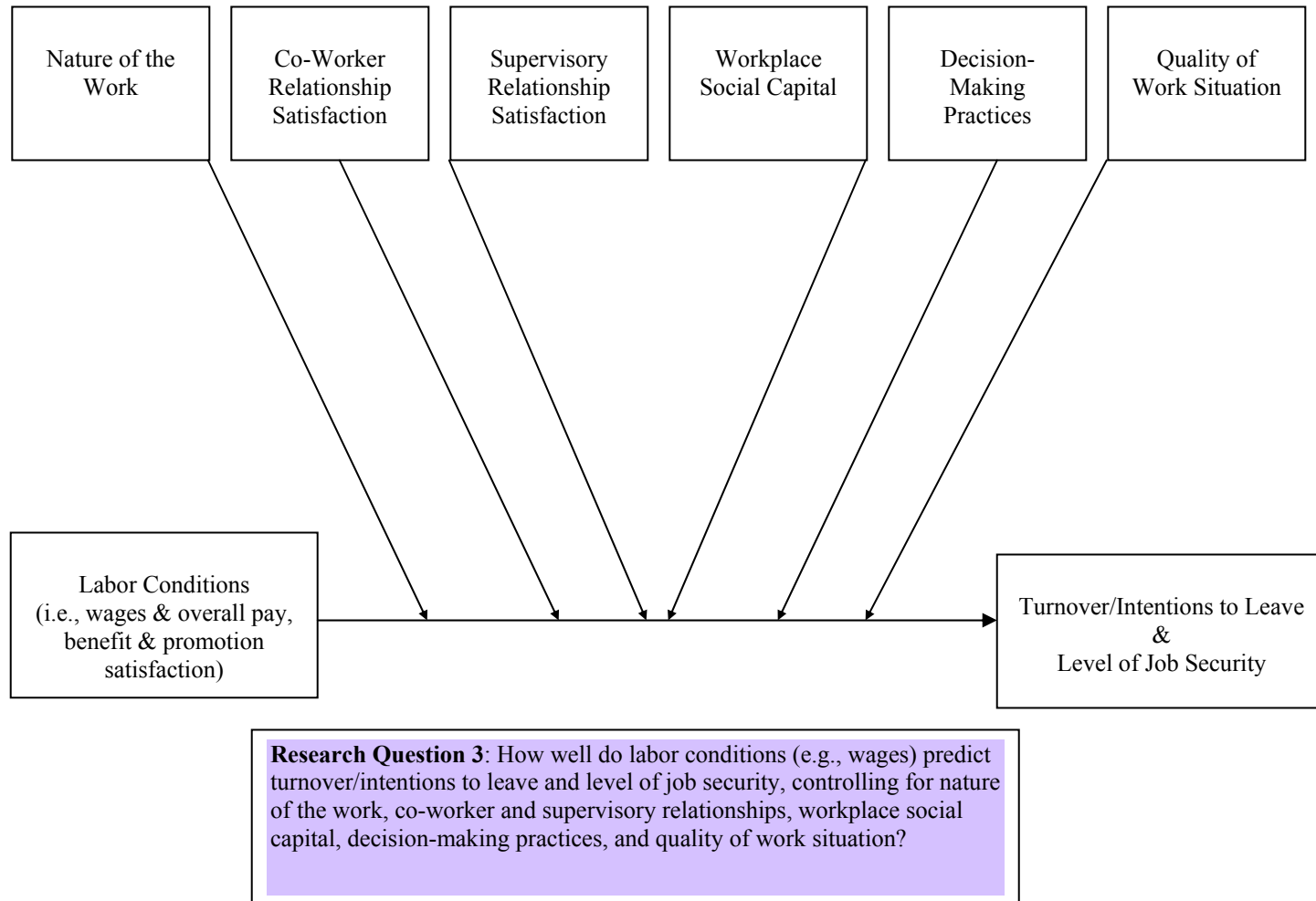


Appendix B: Research Question 2 Diagram

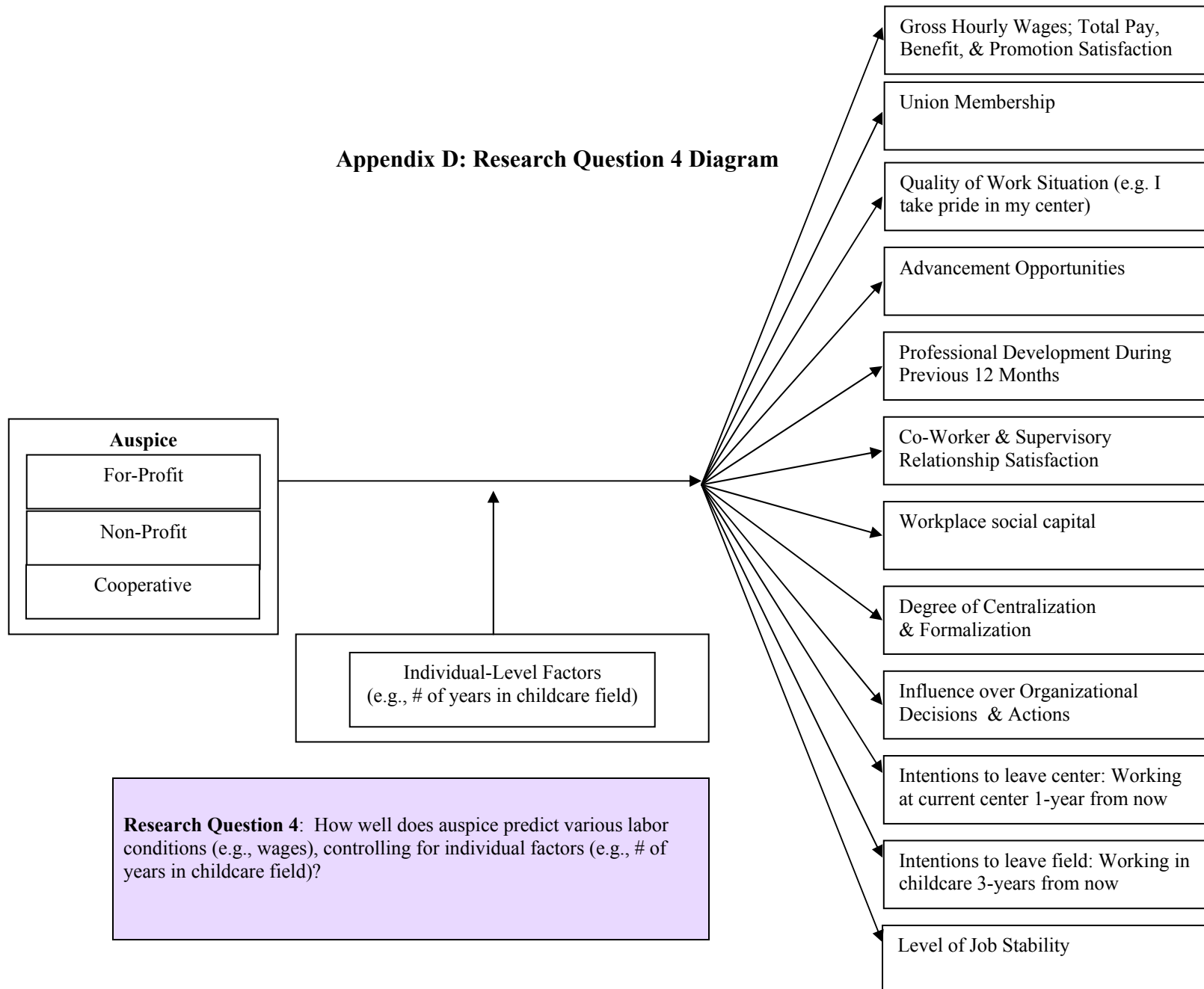
Research Question 2: In what ways do individual-level factors (e.g., # of years within childcare field) within cooperatives differ from non-profit and for-profit childcare centers?



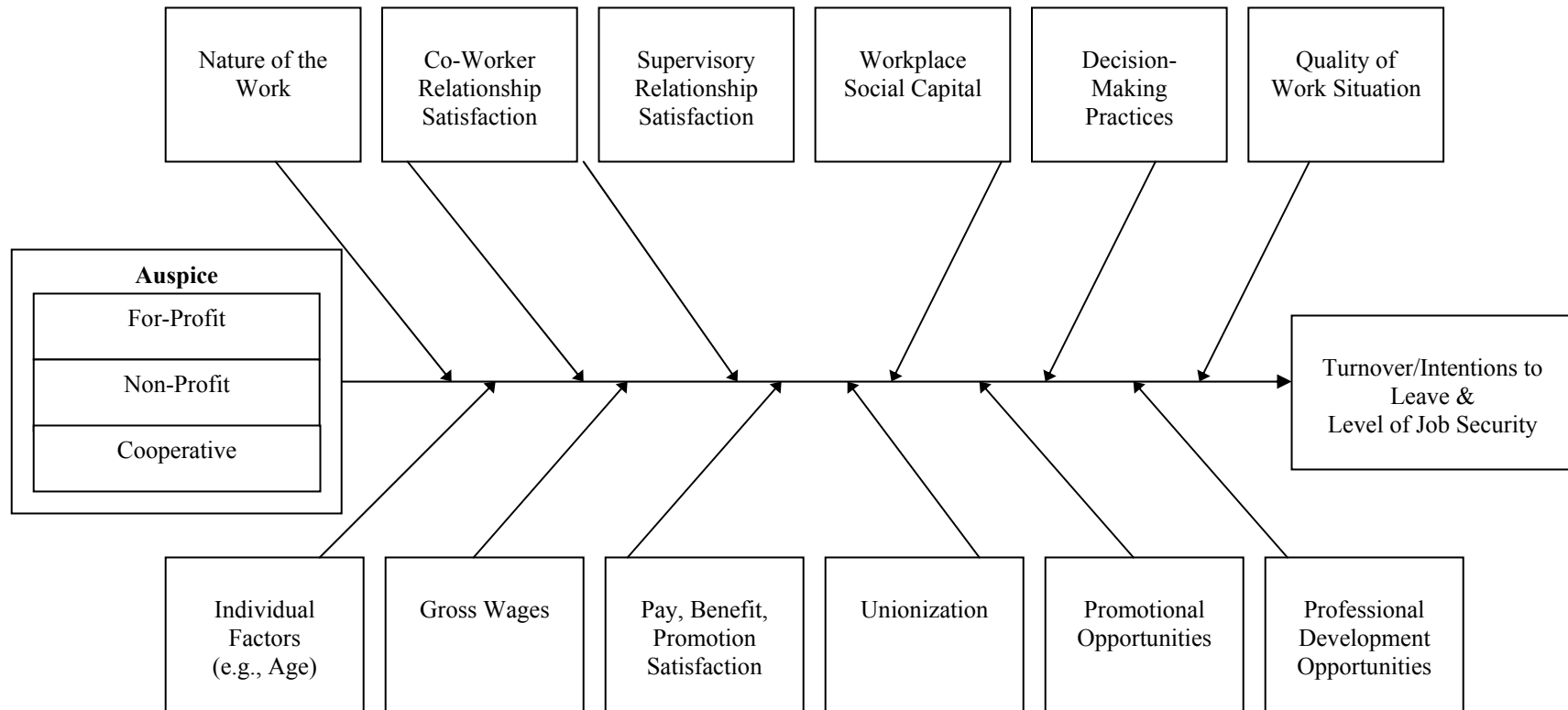
Appendix C: Research Question 3 Diagram



Appendix D: Research Question 4 Diagram



Appendix E: Research Question 5 Diagram



Research Question 5: How well does auspice predict turnover/intentions to leave and level of job security, controlling for: individual-level factors; gross hourly wages; pay/benefit/promotional opportunity satisfaction; unionization; promotional opportunities; professional development; the nature of the work; co-worker and supervisory relationship satisfaction; workplace social capital; organizational influence and decision-making practices; and quality of the work situation?

Appendix F: 1844 Rochdale Society of Equitable Pioneers Cooperative Principles⁶¹

1. Open membership
2. Democratic control (one person, one vote)
3. Distribution of surplus to members in proportion to their transactions
4. Limited interest on capital
5. Political and religious neutrality
6. Cash tradition
7. Promotion of education
There were three additional elements that the Rochdale Society endorsed; however, they were not understood as “principles” per say. They include: trading exclusively with members, voluntary membership, and sales at current market price.

⁶¹ Obtained from the International Cooperative Association. Retrieved on February 6, 2010 from <http://www.ica.coop/coop/principles-revisions.html>

Appendix G: International Cooperative Association: Cooperative Principles⁶²

1st Principle: Voluntary and Open Membership

Co-operatives are voluntary organizations, open to all persons able to use their services and willing to accept the responsibilities of membership, without gender, social, racial, political or religious discrimination.

2nd Principle: Democratic Member Control

Co-operatives are democratic organizations controlled by their members, who actively participate in setting their policies and making decisions. Men and women serving as elected representatives are accountable to the membership. In primary co-operatives members have equal voting rights (one member, one vote) and co-operatives at other levels are also organized in a democratic manner.

3rd Principle: Member Economic Participation

Members contribute equitably to, and democratically control, the capital of their co-operative. At least part of that capital is usually the common property of the co-operative. Members usually receive limited compensation, if any, on capital subscribed as a condition of membership. Members allocate surpluses for any or all of the following purposes: developing their co-operative, possibly by setting up reserves, part of which at least would be indivisible; benefiting members in proportion to their transactions with the co-operative; and supporting other activities approved by the membership.

4th Principle: Autonomy and Independence

Co-operatives are autonomous, self-help organizations controlled by their members. If they enter to agreements with other organizations, including governments, or raise capital from external sources, they do so on terms that ensure democratic control by their members and maintain their co-operative autonomy.

5th Principle: Education, Training and Information

Co-operatives provide education and training for their members, elected representatives, managers, and employees so they can contribute effectively to the development of their co-operatives. They inform the general public - particularly young people and opinion leaders - about the nature and benefits of co-operation.

6th Principle: Co-operation among Co-operatives

Co-operatives serve their members most effectively and strengthen the co-operative movement by

⁶² Obtained from the International Cooperative Association. Reproduced in its entirety and retrieved on February 6, 2010 from <http://www.ica.coop/coop/principles-revisions.html>

working together through local, national, regional and international structures.

7th Principle: Concern for Community

Co-operatives work for the sustainable development of their communities through policies approved by their members.

Appendix H: Nussbaum's 10 Essential Capabilities

(Nussbaum, 2006)

1. "Life. Being able to live to the end of a human life of normal length; not dying prematurely, or before one's life is so reduced as to be not worth living.
2. Bodily health. Being able to have good health, including reproductive health; being adequately nourished; to have adequate shelter.
3. Bodily integrity. Being able to move freely from place to place; being able to be secure against violent assault, including sexual assault and domestic violence ; having opportunities for sexual satisfaction and for choice in matters of reproduction
4. Senses, imagination, thought. Being able to use the senses; being able to imagine, to think, and to reason—and to do these things in a "truly human" way, a way informed and cultivated by an adequate education, including, but by no means limited to, literacy and basic mathematical and scientific training. Being able to use imagination and thought in connection with experiencing, and producing expressive works and events of one's own choice, religious, literary, musical, and so forth. Being able to use one's mind in ways protected by guarantees of freedom of expression with respect to both political and artistic speech and freedom of religious exercise; being able to have pleasurable experiences and to avoid non-beneficial pain.
5. Emotions. Being able to have attachments to things and persons outside ourselves; to love those who love and care for us, to grieve at their absence; in general, to love, to grieve, to experience longing, gratitude, and justified anger; not having one's emotional developing blighted by fear or anxiety. (Supporting this capability means supporting forms of human association that can be shown to be crucial in their development).
6. Practical reason. Being able to form a conception of the good and to engage in critical reflection about the planning of one's own life. (This entails protection for liberty of conscience and religious observance.)
7. Affiliation. (A) Being able to live with and towards others, to recognize and show concern for other human beings, to engage in various forms of social interaction; to be able to imagine the situation of another. (Protecting this capability means protecting institutions that constitute and nourish such forms of affiliation, and also protecting the freedom of assembly and political speech). (B) Having the social bases of self-respect and non-humiliation; being able to be treated as a dignified being whose worth is equal to that of others. This entails provisions of nondiscrimination on the basis of race, sex, sexual orientation, ethnicity, caste, religion, national origin.
8. Other species. Being able to live with concern for and in relation to animals, plants, and the world of nature.

9. Play. Being able to laugh, to play, to enjoy recreational activities.

10. Control over one's environment. (A) Political: being able to participate effectively in political choices that govern one's life; having the rights of political participation, protections of free speech and freedom of association. (B) Material: being able to hold property (both land and movable goods) and having property rights on an equal basis with others; having the right to seek employment on an equal basis with others; having the freedom from unwarranted search and seizure. In work, being able to work as a human being, exercising practical reason and entering into meaningful relationships of mutual recognition with other workers" (p. 58-9).

Appendix I: Categorical Principal Component Analyses on Selected Scales

Given the categorical or limited (e.g., 3-point) likert scaling of the variables of interest, non-linear (categorical) principal components analysis (CATPCA) was chosen to assess the accuracy and efficiency of the multivariate composites (Linting, Meulman, Goenen, & van der Kooij, 2007).

1. Pay, Benefits & Promotion Scale

CATPCA analyses (please see Tables 1 below) revealed that the original 7-item “pay, benefits, and promotion scale” accurately and efficiently assessed satisfaction with pay/benefits, vacation time, and promotion opportunities. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .516 to .771--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for the greatest variance (100%), the original 7-item composite score was selected for use in all subsequent analyses. Also, an alpha of .60 was obtained for the original 7-item scale; although low, this value is considered to be on the “ lower end of acceptability,” particularly within exploratory research (Hair, Anderson, Tatham & Black, 1998).

Table 1: Eigenvalues, Total Variance Accounted For (VAF), & Component Loadings – 1st Iteration Involving 7 Components

Item	Model Summary			Component Loadings						
	Eigenvalue	VAF	Cum. VAF	1	2	3	4	5	6	7
My salary does not adequately reflect the work I do	2.031	29.01	29.01	.771	.404	-.099	-.015	.108	-.031	.469
My benefits are inadequate	1.048	14.97	43.98	.516	-.282	-.146	.329	-.340	.639	-.025
I am not progressing in my job as rapidly as I would like	.957	13.67	57.65	.370	-.225	.561	.606	.298	-.203	-.029
My pay is fair considering my background and skills	.929	13.27	70.91	.663	.542	-.020	.034	-.266	-.211	-.388
My pay is fair compared with what other centers pay	.831	11.87	82.78	.555	-.245	-.287	-.298	.638	.129	-.203
I have enough time off for vacations	.795	11.36	94.14	.413	-.615	-.274	-.086	-.328	-.512	.065
Chances are good for promotion	.419	5.99	100.00	.340	-.153	.673	-.597	-.175	.144	.016
TOTAL	7.011	100.00	100.00	--	--	--	--	--	--	--

2. Satisfaction with Work Environment

CATPCA analyses (please see Table 2 below) revealed that the original 8-item “satisfaction with work environment” scale accurately and efficiently assessed satisfaction with the work environment with respect to the following dimensions: pleasantness of the center, ability to find needed materials, availability of equipment and materials needed to perform job, private space for breaks/conversations, and personal storage space. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .514 to .661--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for the greatest variance (100%), the original 8-item composite score was selected for use in all subsequent analyses. Also, an alpha of .684 was obtained for the original 8-item scale; although low, a alpha of .60 is deemed to be on the “ lower end of acceptability,” particularly within exploratory research (Hair, Anderson, Tatham & Black, 1998).

Table2: Eigenvalues, Total Variance Accounted For (VAF), & Component Loadings – 1st Iteration Involving 8 Components

Item	Model Summary			Component Loadings							
	Eigenvalue	VAF	Cum. VAF	1	2	3	4	5	6	7	8
The center is a bright and attractive place to be in	2.517	31.460	31.460	.648	-.287	-.083	-.247	-.299	-.205	-.226	.496
I always know where to find the things I need	1.147	14.340	45.803	.567	-.309	-.057	.266	.661	-.258	-.069	.028
I need some new equipment and materials to do my job well	.888	11.097	56.899	.559	-.238	-.037	.654	-.332	.290	.083	-.026
We need a separate room where staff can relax during breaks	.786	9.822	66.722	.477	.648	.220	.079	.047	-.134	.449	.276
I can't find a place to carry on a private conversation	.737	9.217	75.938	.540	.556	-.141	.088	-.160	-.290	-.389	-.333
It is too noisy	.707	8.839	84.778	.514	.168	-.647	-.266	.162	.427	.097	-.011
The conditions meet my standards of cleanliness	.620	7.751	92.529	.612	-.388	.118	-.320	-.157	-.200	.364	-.402
Teachers have a place to store personal belongings	.598	7.474	100.00	.552	.066	.613	-.197	.148	.436	-.250	-.042
TOTAL	8.000	100.000	100.00	--	--	--	--	--	--	--	--

3. Satisfaction with Work Situation

CATPCA analyses (please see Tables 3 - 4) revealed that the original 14-item “satisfaction with work situation” scale accurately and efficiently assessed satisfaction with the work situation, with respect to the following dimensions: physical & emotional aspects of work, sense of pride/accomplishment in center and work, adequate time to perform duties, positive impact in lives of children, feelings regarding center and position, and feelings regarding the care the center provides to children and families. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .396 to .762--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for the greatest variance (100%) in work situation, the original 14-item composite score was selected for use in all subsequent analyses. Also, an alpha of .833 was obtained for the original 14-item scale, which is considered “good-to-very-good” by most accounts (DeVellis, 1991; George & Mallery, 2003; Hair, Anderson, Tatham & Black, 1998).

Table 3: *Eigenvalues & Total Variance Accounted For (VAF) – 1st Iteration Involving 14 Components*

Dimension	Eigenvalue	Variance Accounted For	Cumm. VAF
1	2.922	20.871	20.871
2	1.863	13.307	34.178
3	1.429	10.207	44.385
4	1.058	7.557	51.942
5	.946	6.757	58.699
6	.927	6.621	65.320
7	.879	6.279	71.599
8	.795	5.679	77.278
9	.771	5.507	82.785
10	.698	4.986	87.771
11	.650	4.643	92.414
12	.595	4.250	96.664
13	.529	3.779	
14	.470	3.357	
Total	14.533	100.00	

Table 4: Component Loadings for 1st Iteration—14 Dimensions

	Component Loadings													
	Dimension													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
The work I do is stimulating and challenging	.392	-.396	-.393	-.264	-.129	.229	-.165	-.042	.290	.336	-.383	-.123	-.177	-.032
I feel physically exhausted at the end of the day	.414	.461	.230	-.353	-.194	.133	-.083	-.419	.138	.101	.323	-.265	.105	.150
My work gives me a sense of accomplishment	.214	-.316	-.411	-.308	-.455	-.513	-.207	.101	-.286	-.072	.158	.001	.062	-.012
There is little time to do all that needs to be done	.342	.492	.147	-.078	.268	-.266	-.119	.547	.044	.361	.010	-.174	.102	-.039
I feel emotionally drained at the end of the day	.549	.502	.182	-.295	-.055	.020	-.035	-.106	-.058	-.139	-.170	.331	-.040	-.420
I make a positive difference in the children's lives	.188	-.352	-.186	-.419	.762	-.156	-.051	-.190	-.022	-.139	.090	.011	-.001	.029
Centre policies and procedures are well-defined	.558	-.238	-.027	.425	.055	-.069	-.226	-.144	.142	.330	.311	.400	-.007	.008
I feel frustrated by this job	.714	.309	-.007	.010	-.006	-.006	-.015	.085	-.127	-.184	-.258	.201	-.097	.488
I have reasonable control over most things that affect my satisfaction with my job	.650	.018	-.208	.135	.009	.077	.414	.120	-.103	-.070	.276	-.195	-.438	-.105

I feel my job makes good use of my skills and abilities	.602	-.138	-.306	.102	-.011	.071	.517	-.026	.009	.026	-.085	-.017	.495	-.041
I take pride in my centre	.303	-.487	.294	-.201	-.047	.570	-.215	.395	-.092	-.165	.198	.046	.120	-.006
I know the center could be providing a better service, but there is nothing I can do about it	.534	-.021	-.005	.497	.083	-.050	-.448	-.130	-.041	-.296	-.141	-.348	.081	-.129
My centre provides a well-rounded program for the children who attend	.268	-.431	.573	-.055	-.128	-.384	.182	.080	.520	-.212	-.038	-.016	-.040	.012
My centre really supports the families of the children who attend	.207	-.428	.641	.004	.011	-.089	.124	-.194	-.503	.304	-.175	-.092	-.043	-.003

Variable Principal Normalization.

4. Co-Worker Relationship Satisfaction

CATPCA analyses (please see Table 5 below) revealed that the original 8-item “co-worker relationship satisfaction” scale accurately and efficiently assessed satisfaction with co-worker relationships, with respect to the following dimensions: overall relationship quality and trust. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .584 to .777--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for the greatest variance (100%), the original 8-item composite score was selected for use in all subsequent analyses. Also, an alpha of .82 was obtained for the original 8-item scale, which is considered “good-to-very-good” by most accounts (DeVellis, 1991; George & Mallery, 2003; Hair, Anderson, Tatham & Black, 1998).

Table 5: Eigenvalues, Total Variance Accounted For (VAF), & Component Loadings – 1st Iteration Involving 8 Components

Item	Model Summary			Component Loadings							
	Eigenvalue	VAF	Cum. VAF	1	2	3	4	5	6	7	8
My colleagues support and encourage me	3.673	45.912	45.912	.717	-.382	.131	-.272	-.005	-.214	.444	-.075
I enjoy the company of my colleagues	1.261	15.757	61.669	.777	-.269	.074	-.122	.074	-.228	-.307	.390
My colleagues are hard to get to know	.659	8.243	69.912	.687	.361	-.249	.166	-.370	-.355	-.090	-.191
My colleagues share personal concerns with me	.579	7.239	77.151	.609	-.461	-.099	.609	.111	.115	.097	.025
My colleagues are critical of my performance	.557	6.966	84.117	.584	.514	-.238	-.052	.574	-.036	.038	-.062
I feel I can't trust my colleagues	.476	5.944	90.061	.556	.442	.681	.156	-.009	.065	-.015	-.044
My colleagues are not very helpful	.411	5.135	95.196	.719	.330	-.209	-.119	-.271	.392	.156	.253
My colleagues share ideas and resources	.384	4.804	100.00	.738	-.362	-.012	-.224	-.003	.280	-.276	-.345
TOTAL	8.000	100.000	100.00	--	--	--	--	--	--	--	--

5. Supervisory Relationship Satisfaction

CATPCA analyses (please see Table 6 below) revealed that the original 9-item “supervisory relationship satisfaction” scale accurately and efficiently assessed satisfaction with supervisory relationships, with respect to the following dimensions: overall relationship quality, supervision style, goal setting, and availability. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .582 to .762--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for the greatest variance (100%), the original 9-item composite score was selected for use in all subsequent analyses. Also, an alpha of .79 was obtained for the original 9-item scale, which is considered “good” by most accounts (DeVellis, 1991; George & Mallery, 2003; Hair, Anderson, Tatham & Black, 1998).

Table 6: Eigenvalues, Total Variance Accounted For (VAF), & Component Loadings – 1st Iteration Involving 9 Components

Item	Model Summary			Component Loadings								
	Eigen-value	VAF	Cum. VAF	1	2	3	4	5	6	7	8	9
Encourages me to try new ideas	3.477	38.635	38.635	.680	-.307	.058	-.103	.488	.056	-.157	-.401	-.035
Supervises me too closely	1.221	13.562	52.197	.458	.589	-.267	.192	.061	.575	.021	-.015	-.005
Provides support and helpful feedback	.836	9.292	61.489	.745	-.232	.065	-.022	.238	.049	-.212	.512	.138
Set high but realistic goals	.747	8.301	69.790	.422	-.533	-.332	.625	-.156	-.061	.073	-.037	-.049
Makes me feel inadequate	.649	7.216	77.006	.669	.434	-.006	.112	-.115	-.351	-.076	-.141	.435
Trusts my judgment	.644	7.153	84.159	.723	-.001	-.128	-.248	.104	-.116	.607	.067	-.040
Is unavailable	.530	5.884	90.043	.519	-.076	.762	.174	-.231	.203	.127	-.048	-.020
Appreciates the difficulties of balancing work and family responsibilities	.460	5.114	95.157	.582	-.314	-.225	-.452	-.490	.190	-.155	-.079	.036
Is hard to please	.436	4.842	100.00	.701	.386	.008	.016	-.093	-.299	-.199	.044	-.469
TOTAL	9.000	100.000	100.00	.680	-.307	.058	-.103	.488	.056	-.157	-.401	-.035

6. Workplace Social Capital

CATPCA analyses (please see Table 7 below) revealed that the original 8-item “workplace social capital” scale accurately and efficiently assessed workplace social capital with respect to the colleagues and supervisors. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .610 to .761--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for a significant amount of variance (94.91%), the original 8-item composite score was selected for use in all subsequent analyses. Also, an alpha of .73 was obtained for the original 8-item scale, which is considered “good” by most accounts (DeVellis, 1991; George & Mallery, 2003; Hair, Anderson, Tatham & Black, 1998).

Table 7: Eigenvalues, Total Variance Accounted For (VAF), & Component Loadings – 1st Iteration Involving 8 Components

Item	Model Summary			Component Loadings							
	Eigenvalue	VAF	Cum. VAF	1	2	3	4	5	6	7	8
My colleagues support and encourage me	3.015	37.686	37.686	.674	.217	.508	.128	-.079	.104	-.332	.000
My colleagues are hard to get to know	1.438	17.978	55.664	.712	-.303	-.109	-.187	.378	-.227	-.340	.000
My colleagues are critical of my performance	.926	11.569	67.233	.636	-.325	-.324	-.303	-.380	.377	-.067	.000
I feel I can't trust my colleagues	.652	8.154	75.387	.610	-.222	-.331	.676	-.084	-.048	.033	.000
My colleagues are not very helpful	.583	7.292	82.679	.761	-.242	-.039	-.183	.165	-.158	.398	.000
My colleagues share ideas and resources	.513	6.413	89.092	.689	.156	.527	.004	-.095	.020	.264	.000
My supervisor provides support and helpful feedback	.465	5.818	94.91	.331	.731	-.279	.027	.379	.359	.062	.000
My supervisor trusts my judgment	.000	.001	.007	.338	.726	-.289	-.134	-.321	-.390	-.049	.000
TOTAL	7.593	94.911	94.91	--	--	--	--	--	--	--	--

7. Degree of Formalization

CATPCA analyses (please see Table 8 below) revealed that the original 6-item “degree of formalization” scale accurately and efficiently assessed formalization practices with respect to formal/written policies and procedures and availability of staff manual outlining said policies. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .639 to .701--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for a significant amount of variance (100%), the original 6-item composite score was selected for use in all subsequent analyses. Also, an alpha of .73 was obtained for the original 6-item scale, which is considered “good” by most accounts (DeVellis, 1991; George & Mallery, 2003; Hair, Anderson, Tatham & Black, 1998).

Table 8: Eigenvalues, Total Variance Accounted For (VAF), & Component Loadings – 1st Iteration Involving 6 Components

Item	Model Summary			Component Loadings					
	Eigenvalue	VAF	Cum. VAF	1	2	3	4	5	6
Written job description	2.561	42.682	42.682	.701	.342	-.224	-.142	-.110	.556
Written job contract	.918	15.302	57.984	.647	-.318	-.542	.172	-.311	-.247
Written salary schedule	.729	12.151	70.135	.639	-.501	-.029	-.334	.477	.024
A staff manual outlining staff policies	.668	11.141	81.276	.592	.646	-.026	-.186	.155	-.416
Regular written job performance appraisal	.572	9.538	90.814	.674	.031	.244	.658	.222	.061
Formal grievance procedure	.551	9.186	100.00	.662	-.177	.569	-.199	-.403	-.060
TOTAL	6.000	100.000	---	--	--	--	--	--	--

8. Degree of Centralization

CATPCA analyses (please see Table 9 below) revealed that the original 8-item “degree of centralization” scale accurately and efficiently assessed centralization with respect to (i) overall input regarding decision-making and (ii) teacher decision-making regarding things that directly affect them. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .595 to .729--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for a significant amount of variance (0100%), the original 8-item composite score was selected for use in all subsequent analyses. Also, an alpha of .802 was obtained for the original 8-item scale, which is considered “good” by most accounts (DeVellis, 1991; George & Mallery, 2003; Hair, Anderson, Tatham & Black, 1998).

Table 9: Eigenvalues, Total Variance Accounted For (VAF), & Component Loadings – 1st Iteration Involving 8 Components

Item	Model Summary			Component Loadings							
	Eigenvalue	VAF	Cum. VAF	1	2	3	4	5	6	7	8
People are encouraged to be self-sufficient in making decisions	3.417	42.718	42.718	.628	.455	-.377	.130	.207	-.062	.183	.400
The director likes to make most of the decisions	.898	11.230	53.948	.688	.028	-.476	-.047	.137	-.133	-.285	-.424
People don't feel free to express their opinions	.766	9.576	63.524	.702	-.356	.093	-.047	.015	-.317	.499	-.142
Everyone provides input on the content of staff meetings	.686	8.570	72.094	.640	.030	.294	.627	-.203	-.159	-.207	.015
People provide input but the decisions have already been made	.646	8.076	80.170	.666	-.294	-.094	-.361	-.408	-.083	-.227	.326
Teachers make decisions about things that directly affect them	.541	6.762	86.932	.519	.595	.467	-.367	-.003	-.090	-.040	-.121
Teachers are seldom asked their opinion on issues	.524	6.552	93.484	.636	-.346	.270	-.047	.558	.211	-.165	.134
The director values everyone's input for major decisions	.521	6.516	100.00	.729	.045	-.057	.059	-.256	.578	.192	-.150
TOTAL	8.000	100.000	---	--	--	--	--	--	--	--	--

9. Influence Over Organizational Actions & Decisions

CATPCA analyses (please see Tables 10 below) revealed that the original 7-item “influence over organizational actions and decisions” scale accurately and efficiently assessed influence over organizational actions/decision, particularly with respect to: (i) overall decisional influence and (ii) planning of daily schedule of activities. Given that the 1st iteration provided no justification for the removal of any items (all demonstrating component loading well above the acceptable limit of .30, with loadings ranging from .645 to .781--Linting, Meulman, Goenen, & van der Kooij, 2007), and the model accounted for the greatest variance (100%), the original 7-item composite score was selected for use in all subsequent analyses. Also, an alpha of .812 was obtained for the original 7-item scale, which is considered “good” by most accounts (DeVellis, 1991; George & Mallery, 2003; Hair, Anderson, Tatham & Black, 1998).

Table 10: Eigenvalues, Total Variance Accounted For (VAF), & Component Loadings – 1st Iteration Involving 7 Components

Item	Model Summary			Component Loadings						
	Eigenvalue	VAF	Cum. VAF	1	2	3	4	5	6	7
Ordering materials and supplies	3.208	45.829	45.829	.645	.156	.332	.689	-.035	-.125	-.015
Interviewing/hiring new staff	1.152	16.457	62.286	.652	-.403	.374	-.225	-.423	.232	-.099
Determining program objectives	.748	10.686	72.972	.684	.438	-.047	-.029	.256	.538	.034
Orientation of new teachers	.709	10.129	83.101	.700	-.090	.368	-.345	.416	-.295	.025
Planning daily schedule of activities	.540	7.714	90.815	.471	.774	-.099	-.243	-.326	-.246	-.006
Developing or changing policies	.519	7.414	98.229	.781	-.330	-.349	.043	-.092	-.060	.398
Influencing how procedures are developed or determined	.302	4.314	102.543	.761	-.238	-.478	.058	.075	-.090	-.362
TOTAL	7.176	102.543	---	--	--	--	--	--	--	--

Appendix J: Logistic Regression Model Diagnostics

1. Research Question 3: Model Diagnostics for Logistic Regressions

Table 1.1: Correlation Matrix of Predictor Variables

	1	2	3	4	5
1. Education	---				
2. Years At Current Center	-.032*	---			
3. Auspice	.036	.168**	---		
4. Age	.009	.417**	.091**	---	
5. Years in Childcare	.002	.607**	.131**	.532**	---

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 1.2: Collinearity Diagnostics

	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Auspice	.971	1.030
Education	.995	1.005
Years at Current Center	.578	1.731
Age	.689	1.452
Years in Childcare	.515	1.943

2. Research Question 4: Model Diagnostics for Logistic Regressions

Table 2.1: Correlation of Predictor Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Nature of Work	---													
2. Gross Hourly Wage	-.05**	---												
3. Co-Worker Satisfaction	-.01	.032*	---											
4. Supervisor Satisfaction	-.01	.023	.30**	---										
5. Work Environment	-.02	.10**	.21**	.32**	---									
6. Total Pay, Benefits, Promotion Satisfaction	-.003	.22**	.02**	.23**	.32**	---								
7. Union	.002	.36**	-.02	-.05**	.02	.07**	---							
8. Work Situation Score	-.004	.05**	.28**	.45**	.52**	.36**	-.002	---						
9. Workplace Social Capital	-.01	.02	.83**	.65**	.30**	.18**	-.05**	.43**	---					
10. Formal-ization	-.02	.34**	.13**	.16**	.17**	.17**	.24**	.15**	.16**	---				
11. Central-ization	-.03	.01	.23**	.57**	.32**	.25**	-.01	.48**	.44**	.17**	---			
12. Org. Influence	-.05**	.27**	.16**	.258**	.19**	.11**	.10**	.28**	.23**	.25**	.39**	---		
13. Promotion Opportunities	-.01	-.05**	.05**	.15**	.12**	.18**	-.04	.19**	.122**	.06**	.16**	.09**	---	
14. Professional Development	-.001	.02**	.04*	.06**	.05**	.09**	.07**	.05**	.04**	.21**	.04**	.16**	.03	---

*. Correlation is significant at the 0.05 level (2-tailed); **. Correlation is significant at the 0.01 level (2-tailed).

Table 2.2: Collinearity Statistics

	Collinearity Statistics	
	Tolerance	VIF
Positive Aspect of Working in the Field	.993	1.007
Influence over Organizational Decisions and Actions	.741	1.349
Degree of Centralization	.557	1.795
Degree of formalization	.791	1.264
Workplace Social Capital	.124	8.084
Work Situation Score	.552	1.811
Unionized	.845	1.183
Co-Worker Satisfaction	.194	5.144
Supervisor Satisfaction	.331	3.020
Working Environment Satisfaction	.702	1.425
Total Pay, Benefits, Promotion Satisfaction	.783	1.277
Gross hourly wage	.706	1.417
Promotion Opportunities	.937	1.067

3. Research Question 5: Model Diagnostics for Logistic Regressions

Table 3.1: Correlation of Predictor Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	---																	
2	.03*	---																
3	.02	.30**	---															
4	.10**	.21**	.32**	---														
5	.22**	.12**	.23**	.32**	---													
6	.36**	-.02	-	.02	.07**	---												
7	.05**	.28**	.45**	.52**	.36**	-.002	---											
8	.02	.83**	.65**	.30**	.18**	-.05**	.43**	---										
9	.34**	.13**	.16**	.17**	.17**	.24**	.15**	.16**	---									
10	.01	.23**	.57**	.32**	.25**	-.01	.48**	.44**	.17**	---								
11	.27**	.16**	.28**	.19**	.11**	.10**	.28**	.23**	.25**	.39**	---							
12	-.05**	.05**	.15--	.12**	.18**	-.04	.19**	.12**	.06**	.16**	.09**	---						
13	.20**	.04*	.06**	.05**	.09**	.07**	.05**	.04*	.21**	.04*	.16**	.03	---					
14	-.05**	-.01	-.01	-.02	-.003	.002	-.004	-.01	-.02	-.03	-.05**	.001	-.001	---				
15	.32**	.04*	-.02	-.03	.02	.15**	.01	.01	.14**	-.06**	.21**	-.17**	.09**	.02	---			
16	.37**	.01	.03	.01	.01	.16**	.03	.01	.16**	-.04**	.22**	-.16**	.12**	-.001	.62**	---		
17	.20**	-.01	.05*	-.02	.03	.09**	.03	.01	.15**	-.17	.07**	-.15**	.05**	.001	.39**	.53**	---	
18	.30**	.03	.04*	.05*	.17**	.18**	.09**	.04	.32**	.08**	.11**	.001	.16**	-.02	.16**	.13**	.09**	---
19	.19**	-.03	-.03*	-.03	-.07**	.07**	-.06**	.01	.12**	-.01	.12**	-.001	.08**	-.03	-.03	.02	.01	.04

Note 1: (1) Gross Wages; (2) Co-Worker Satisfaction; (3) Supervisory Satisfaction; (4) Work Environment Satisfaction; (5) Pay, Benefit, and Promotion Satisfaction; (6) Unionization; (7) Work Situation; (8) Workplace Social Capital; (9) Formalization; (10) Centralization; (11) Organizational Influence; (12) Promotional Opportunities; (13) Professional Development; (14) Nature of the Work; (15) Years at Current Center; (16) Years in Childcare; (17) Age; (18) Auspice; and (19) Education level.

Note 2: *. Correlation is significant at the 0.05 level (2-tailed); **Correlation is significant at the 0.01 level (2-tailed).

Table 3.2: Collinearity Statistics

	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Nature of Work	.988	1.012
Organizational Influence	.678	1.475
Centralization	.541	1.848
Formalization	.746	1.341
Workplace Social Capital	.126	7.963
Work Situation Score	.538	1.858
Unionization	.895	1.118
Co-Worker Satisfaction	.201	4.978
Supervisor Satisfaction	.328	3.046
Working Environment Satisfaction	.691	1.446
Pay, Benefits, Promotion Satisfaction	.781	1.281
Gross Hourly Wage	.655	1.527
Promotion Opportunities	.904	1.107
Education	.910	1.099
Auspice	.835	1.197
Years at Current Center	.558	1.791
Years in Childcare	.474	2.110
Teacher Age	.666	1.501

Appendix K: Mean/Frequency & Intercorrelation Tables for Logistic & Multiple Regressions

1. Most Positive Aspect of Working in Childcare Field

<i>Table 1: Frequencies for Predictor Variables as a Function of Most Positive Aspect of Working in Childcare Field</i>			
Variable	Nature of the Work n(%)	Other n(%)	χ^2 (2 or 3 [^])
Age			1.14
24 and Under	615 (81.7)	138 (18.3)	
25 to 34	1252 (81.7)	281 (18.3)	
35 to 44	677 (81.0)	159 (19.0)	
45+	414 (83.3)	83 (16.7)	
Education (any field)			3.18
High School Grad. or less	453 (84.4)	84 (15.6)	
Some Post Graduate/No Degree	2005 (81.4)	459 (18.6)	
Bachelor's Degree or Higher	491 (80.6)	118 (19.4)	
Years in Childcare Field			1.11
Less than 1 to 3 years (ref.)	715 (82.8)	149 (17.2)	
3 to 10 years	1325 (81.0)	310 (19.0)	
10+ years	920 (81.6)	207 (18.4)	
Years at Current Center			3.81
Less than 1 to 3 years (ref.)	1296 (81.5)	294 (18.5)	
3 to 10 years	1236 (80.7)	296 (19.3)	
10+ years	368 (84.8)	66 (15.2)	
Auspice			3.94
For-Profit	576 (83.1)	117 (16.9)	
Non-Profit	1032 (79.4)	267 (20.6)	
Cooperative	367 (81.0)	86 (19.0)	
Note: * $p < .05$; ** $p < .01$; *** $< .001$.			

Table 2: Intercorrelations for Most Positive Aspect of Working in the Childcare Field and Predictor Variables

Measure	1	2	3	4	5	6
1. Most Positive Aspect	---					
2. Age	.01	---				
3. Education	-.03	.01	---			
4. Years in Childcare	-.01	.53***	.02	---		
5. Years at Current Center	.02	.39***	-.03	.62***	---	
6. Auspice	-.02	.09***	.04	.13***	.16***	---

Note 1: Most positive aspect of working in childcare field coded as 0 = Other, 1 = Nature of the Work. Age coded as 1 = 24 and under, 2= 25 to 34, 3=35 to 44, 4 = 45+. Education coded as 1=High school graduate or less, 2=Some post graduate/no degree, 3= BA or higher. Years in Childcare Field coded as 1=<1 to 3 years, 2 = 3 to 10 years, 3=10+ years. Years at Current Center coded as 1=<1 to 3 years, 2 = 3 to 10 years, 3=10+ years. Auspice coded as 1=For Profit, 2=Non-Profit, 3=Coop.

Note 2: * $p < .05$; ** $p < .01$; *** $< .001$.

2. Gross Hourly Wages (before taxes)

Table 3: Means, Standard Deviations, and Intercorrelations for Gross Hourly Wages and Predictor Variables

Variable	<u>M</u>	<u>SD</u>	1	2	3	4	5
Gross Hourly Wages	11.10	3.64	.20***	.19***	.37***	.32***	.30***
Predictor Variables							
1. Age	2.31	.96	---				
2. Education	2.01	.57	.01	---			
3. Years in Childcare	2.07	.74	.53***	.02	---		
4. Years at Current Center	1.68	.68	.39***	-.03	.62***	---	
5. Auspice	1.90	.68	.09***	.04	.13***	.16***	---

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

3. Total Pay, Benefit & Promotion Satisfaction

Table 4: Means, Standard Deviations, and Intercorrelations for Gross Hourly Wages and Predictor Variables

Variable	<u>M</u>	<u>SD</u>	1	2	3	4	5
Pay, Benefit & Promotion Satisfaction	2.98	1.60	.03	-.07***	.01	.02	.17***
Predictor Variables							
1. Age	2.31	.96	---				
2. Education	2.01	.57	.01	---			
3. Years in Childcare	2.07	.74	.53***	.02	---		
4. Years at Current Center	1.68	.68	.39***	-.03	.62***	---	
5. Auspice	1.90	.68	.09***	.04	.13***	.16***	---

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

4. Union Membership

<i>Table 5: Frequencies for Predictor Variables as a Function of Union Membership</i>			
Variable	Unionized n(%)	Non-Unionized n(%)	χ^2 (2 or 3 [^])
Age [^]			42.45***
24 and Under	40 (6.3)	594 (93.4)	
25 to 34	203 (15.4)	1113 (84.6)	
35 to 44	129 (17.6)	604 (82.4)	
45+	74 (16.2)	383 (83.8)	
Education (any field)			22.67***
High School Grad. or less	37 (7.5)	459 (92.5)	
Some Post Graduate/No Degree	320 (15.3)	1778 (84.7)	
Bachelor's Degree or Higher	89 (16.5)	451 (83.5)	
Years in Childcare Field			80.51***
Less than 1 to 3 years (ref.)	48 (6.4)	705 (93.6)	
3 to 10 years	187 (13.3)	1216 (86.7)	
10+ years	211 (21.4)	776 (78.6)	
Years at Current Center			68.47***
Less than 1 to 3 years (ref.)	115 (8.4)	1257 (91.6)	
3 to 10 years	223 (16.8)	1104 (83.2)	
10+ years	86 (22.5)	296 (77.5)	
Auspice			113.94***
For-Profit	10 (1.3)	778 (98.7)	
Non-Profit	214 (14.9)	1227 (85.1)	
Cooperative	88 (17.1)	426 (82.9)	
Note: * $p < .05$; ** $p < .01$; *** $p < .001$.			

<i>Table 6: Intercorrelations for Unionization and Predictor Variables</i>						
Measure	1	2	3	4	5	6
1. Unionization	---					
2. Age	.09***	---				
3. Education	.07***	.01	---			
4. Years in Childcare	.16***	.53	.02	---		
5. Years at Current Center	.15***	.39	-.03	.62***	---	
6. Auspice	.18***	.09***	.04	.13***	.16***	---

Note 1: Unionization coded as 1 = Unionized, 2 = Non-Unionized. Age coded as 1 = 24 and under, 2= 25 to 34, 3=35 to 44, 4 = 45+. Education coded as 1=High school graduate or less, 2=Some post graduate/no degree, 3= BA or higher. Years in Childcare Field coded as 1=<1 to 3 years, 2 = 3 to 10 years, 3=10+ years. Years at Current Center coded as 1=<1 to 3 years, 2 = 3 to 10 years, 3=10+ years. Auspice coded as 1=For Profit, 2=Non-Profit, 3=Coop.

Note 2: * $p < .05$; ** $p < .01$; *** $p < .001$.

5. Feelings Regarding Work Situation

Table 7: Means, Standard Deviations, and Intercorrelations for Feeling Regarding Work Situation and Predictor Variables

Variable	<u>M</u>	<u>SD</u>	1	2	3	4	5
Work Situation Score	38.61	7.06	.03	-.06***	.03	.01	.09***
Predictor Variables							
1. Age	2.31	.96	---				
2. Education	2.01	.57	.01	---			
3. Years in Childcare	2.07	.74	.53***	.02	---		
4. Years at Current Center	1.68	.68	.39***	-.03	.62***	---	
5. Auspice	1.90	.68	.09***	.04	.13***	.16***	---

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

6. Promotional Opportunities

Table 8: Frequencies for Predictor Variables as a Function of Promotional Opportunities

Variable	Promotional Opportunities YES n(%)	Promotional Opportunities NO n(%)	χ^2 (2 or 3 [^])
Age [^]			98.41***
24 and Under	291 (36.0)	517 (64.0)	
25 to 34	379 (22.9)	1279 (77.1)	
35 to 44	180 (19.9)	724 (80.1)	
45+	85 (15.1)	478 (84.9)	
Education (any field)			.11
High School Grad. or less	143 (23.4)	467 (76.6)	
Some Post Graduate/No Degree	631 (23.9)	2011 (76.1)	
Bachelor's Degree or Higher	156 (23.4)	511 (76.6)	
Years in Childcare Field			97.39***
Less than 1 to 3 years (ref.)	307 (32.7)	631 (67.3)	
3 to 10 years	450 (25.3)	1329 (74.7)	
10+ years	182 (14.9)	1043 (85.1)	
Years at Current Center			117.87***
Less than 1 to 3 years (ref.)	536 (31.5)	1163 (68.5)	
3 to 10 years	322 (19.3)	1349 (80.7)	
10+ years	53 (11.1)	424 (88.9)	
Auspice			.004
For-Profit	181 (23.9)	575 (76.1)	
Non-Profit	336 (24.1)	1060 (75.9)	
Cooperative	117 (24.0)	370 (76.0)	

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 9: Intercorrelations for Promotional Opportunities and Predictor Variables

Measure	1	2	3	4	5	6
1. Promotional Opportunities	---					
2. Age	-.15***	---				
3. Education	-.001	.01	---			
4. Years in Childcare	-.16***	.53***	.002	---		
5. Years at Current Center	-.17***	.39***	-.03	.62***	---	
6. Auspice	.001	.09***	.04	.13***	.16***	---

Note 1: Promotional opportunities coded as 1 = yes, 2 = no. Age coded as 1 = 24 and under, 2 = 25 to 34, 3 = 35 to 44, 4 = 45+. Education coded as 1 = High school graduate or less, 2 = Some post graduate/no degree, 3 = BA or higher. Years in Childcare Field coded as 1 = <1 to 3 years, 2 = 3 to 10 years, 3 = 10+ years. Years at Current Center coded as 1 = <1 to 3 years, 2 = 3 to 10 years, 3 = 10+ years. Auspice coded as 1 = For Profit, 2 = Non-Profit, 3 = Coop.

Note 2: * $p < .05$; ** $p < .01$; *** $p < .001$.

7. Earn More Money & Achieve Higher Status at Another Center

Table 10: Frequencies for Predictor Variables as a Function of Earning More Money/Achieving Higher Stats at Another Center

Variable	Earn More Money/Achieve Higher Status YES n(%)	Earn More Money/Achieve Higher Status NO n(%)	χ^2 (2 or 3 [^])
Age [^]			67.74***
24 and Under	421 (52.5)	381 (47.5)	
25 to 34	764 (45.9)	902 (54.1)	
35 to 44	339 (37.1)	575 (62.9)	
45+	189 (33.6)	373 (66.4)	
Education (any field)			22.48***
High School Grad. or less	213 (34.7)	400 (65.3)	
Some Post Graduate/No Degree	1199 (45.2)	1455 (54.8)	
Bachelor's Degree or Higher	298 (44.6)	370 (55.4)	
Years in Childcare Field			27.42***
Less than 1 to 3 years (ref.)	464 (49.2)	479 (50.8)	
3 to 10 years	786 (44.2)	994 (55.8)	
10+ years	469 (38.1)	762 (61.9)	
Years at Current Center			59.09***
Less than 1 to 3 years (ref.)	845 (49.4)	865 (50.6)	
3 to 10 years	688 (41.2)	980 (58.8)	
10+ years	148 (30.8)	332 (69.2)	
Auspice			87.76***
For-Profit	431 (57.1)	324 (42.9)	
Non-Profit	560 (40.1)	835 (59.9)	
Cooperative	159 (32.4)	332 (67.6)	

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 11: Intercorrelations for Earning More Money/Achieving a Higher Status at Another Center and Predictor Variables

Measure	1	2	3	4	5	6
1. Earn More Money/Achieve Higher Status	---					
2. Age	-.13***	---				
3. Education	.06***	.01	---			
4. Years in Childcare	-.08***	.53***	.02	---		
5. Years at Current Center	-.12***	.39***	-.03	.62***	---	
6. Auspice	-.18***	.19***	.04	.13***	.16***	---

Note 1: Earn more money/achieve higher status at another center coded as 0 = no, 1 = yes. Age coded as 1 = 24 and under, 2 = 25 to 34, 3 = 35 to 44, 4 = 45+. Education coded as 1 = High school graduate or less, 2 = Some post graduate/no degree, 3 = BA or higher. Years in Childcare Field coded as 1 = <1 to 3 years, 2 = 3 to 10 years, 3 = 10+ years. Years at Current Center coded as 1 = <1 to 3 years, 2 = 3 to 10 years, 3 = 10+ years. Auspice coded as 1 = For Profit, 2 = Non-Profit, 3 = Coop.

Note 2: * $p < .05$; ** $p < .01$; *** $p < .001$.

8. Participation in Professional Development Activities in Previous 12

Table 12: Frequencies for Predictor Variables as a Function of Participation in Professional Development in Previous 12 Months

Variable	Professional Development YES n(%)	Professional Development NO n(%)	χ^2 (2 or 3 [^])
Age [^]			31.63***
24 and Under	575 (70.1)	245 (29.9)	
25 to 34	1322 (77.8)	378 (22.2)	
35 to 44	758 (81.1)	177 (18.9)	
45+	425 (75.1)	141 (24.9)	
Education (any field)			48.00***
High School Grad. or less	412 (65.9)	213 (34.1)	
Some Post Graduate/No Degree	2138 (78.9)	573 (21.1)	
Bachelor's Degree or Higher	528 (77.6)	152 (22.4)	
Years in Childcare Field			58.37***
Less than 1 to 3 years (ref.)	654 (68.4)	302 (31.6)	
3 to 10 years	1394 (76.9)	419 (23.1)	
10+ years	1035 (82.3)	223 (17.7)	
Years at Current Center			32.48***
Less than 1 to 3 years (ref.)	1256 (72.3)	481 (27.7)	
3 to 10 years	1353 (79.6)	347 (20.4)	
10+ years	401 (81.3)	92 (18.7)	
Auspice			114.00***
For-Profit	477 (61.7)	296 (38.3)	
Non-Profit	1162 (81.9)	257 (18.1)	
Cooperative	399 (78.9)	107 (21.1)	

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 13: Intercorrelations for Professional Development in Previous 12 Months and Predictor Variables

Measure	1	2	3	4	5	6
1. Professional Development	---					
2. Age	.05**	---				
3. Education	.08***	.01	---			
4. Years in Childcare	.12***	.53***	.02	---		
5. Years at Current Center	.09***	.39***	-.03	.62***	---	
6. Auspice	.16***	.09***	.04	.13***	.16***	---

Note 1: Professional development coded as 0 = no, 1 = yes. Age coded as 1 = 24 and under, 2 = 25 to 34, 3 = 35 to 44, 4 = 45+. Education coded as 1 = High school graduate or less, 2 = Some post graduate/no degree, 3 = BA or higher. Years in Childcare Field coded as 1 = <1 to 3 years, 2 = 3 to 10 years, 3 = 10+ years. Years at Current Center coded as 1 = <1 to 3 years, 2 = 3 to 10 years, 3 = 10+ years. Auspice coded as 1 = For Profit, 2 = Non-Profit, 3 = Coop.

Note 2: * $p < .05$; ** $p < .01$; *** $p < .001$.

9. Co-worker Relationship Satisfaction

Table 14: Means, Standard Deviations, and Intercorrelations for Co-Worker Relationship Satisfaction and Predictor Variables

Variable	<u>M</u>	<u>SD</u>	1	2	3	4	5
Co-Worker Relationship Satisfaction	6.69	1.69	-.01	.03	.01	.04*	.03
Predictor Variables							
1. Age	2.31	.96	---				
2. Education	2.01	.57	.01	---			
3. Years in Childcare	2.07	.74	.53***	.02	---		
4. Years at Current Center	1.68	.68	.39***	-.03	.62***	---	
5. Auspice	1.90	.68	.09***	.04	.13***	.16***	---

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

10. Supervisory Relationship Satisfaction

Table 15: Means, Standard Deviations, and Intercorrelations for Supervisory Relationship Satisfaction and Predictor Variables

Variable	<u>M</u>	<u>SD</u>	1	2	3	4	5
Supervisory Relationship Satisfaction	6.45	2.18	.05***	-.03*	.03	-.02	.04*
Predictor Variables							
1. Age	2.31	.96	---				
2. Education	2.01	.57	.01	---			
3. Years in Childcare	2.07	.74	.53***	.02	---		
4. Years at Current Center	1.68	.68	.39***	-.03	.62***	---	
5. Auspice	1.90	.68	.09***	.04	.13***	.16***	---

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

11. Workplace Social Capital

Table 16: Means, Standard Deviations, and Intercorrelations for Workplace Social Capital and Predictor Variables

Variable	<u>M</u>	<u>SD</u>	1	2	3	4	5
Workplace Social Capital	6.54	1.56	.01	.01	.01	.01	.04
Predictor Variables							
1. Age	2.31	.96	---				
2. Education	2.01	.57	.01	---			
3. Years in Childcare	2.07	.74	.53***	.02	---		
4. Years at Current Center	1.68	.68	.39***	-.03	.62***	---	
5. Auspice	1.90	.68	.09***	.04	.13***	.16***	---

Note: * $p < .05$; ** $p < .01$; *** $< .001$.

12. Degree of Formalization

Table 17: Means, Standard Deviations, and Intercorrelations for Degree of Formalization and Predictor Variables

Variable	<u>M</u>	<u>SD</u>	1	2	3	4	5
Formalization	2.89	1.85	.05**	.12***	.16***	.14***	.32***
Predictor Variables							
1. Age	2.31	.96	---				
2. Education	2.01	.57	.01	---			
3. Years in Childcare	2.07	.74	.53***	.02	---		
4. Years at Current Center	1.68	.68	.39***	-.03	.62***	---	
5. Auspice	1.90	.68	.09***	.04	.13***	.16***	---

Note: * $p < .05$; ** $p < .01$; *** $< .001$.

13. Degree of Centralized Decision Making

Table 18: Means, Standard Deviations, and Intercorrelations for Degree of Centralization and Predictor Variables

Variable	<u>M</u>	<u>SD</u>	1	2	3	4	5
Centralization	5.34	2.36	-.02	-.01	.04**	-.06***	.08***
Predictor Variables							
1. Age	2.31	.96	---				
2. Education	2.01	.57	.01	---			
3. Years in Childcare	2.07	.74	.53***	.02	---		
4. Years at Current Center	1.68	.68	.39***	-.03	.62***	---	
5. Auspice	1.90	.68	.09***	.04	.13***	.16***	---

Note: * $p < .05$; ** $p < .01$; *** $< .001$.

14. Influence Over Organizational Decisions & Actions

Table 19: Means, Standard Deviations, and Intercorrelations for Organizational Influence and Predictor Variables

Variable	<u>M</u>	<u>SD</u>	1	2	3	4	5
Organizational Influence	13.25	3.30	.07***	.12***	.22***	.21***	.11***
Predictor Variables							
1. Age	2.31	.96	---				
2. Education	2.01	.57	.01	---			
3. Years in Childcare	2.07	.74	.53***	.02	---		
4. Years at Current Center	1.68	.68	.39***	-.03	.62***	---	
5. Auspice	1.90	.68	.09***	.04	.13***	.16***	---

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

15. Working at Current Center in One Year

Table 20: Frequencies for Predictor Variables as a Function of Intentions to Remain at Center in the Coming Year

Variable	Working at Center in 1-Yr. YES n(%)	Working at Center in 1-Yr. NO n(%)	χ^2 (2 or 3 [^])
Age			142.40***
24 and Under	524 (65.9)	281 (34.1)	
25 to 34	1288 (76.6)	394 (23.4)	
35 to 44	800 (85.7)	133 (14.3)	
45+	500 (88.5)	65 (11.5)	
Education (any field)			23.41***
High School Grad. or less	511 (81.2)	118 (18.8)	
Some Post Graduate/No Degree	2128 (79.1)	561 (20.9)	
Bachelor's Degree or Higher	483 (71.3)	194 (28.7)	
Years in Childcare Field			134.48***
Less than 1 to 3 years (ref.)	638 (66.7)	318 (33.3)	
3 to 10 years	1401 (77.8)	400 (22.2)	
10+ years	1089 (87.3)	158 (12.7)	
Years at Current Center			162.14***
Less than 1 to 3 years (ref.)	1200 (69.3)	531 (30.7)	
3 to 10 years	1407 (83.3)	282 (16.7)	
10+ years	450 (92.2)	38 (7.8)	
Auspice			62.14***
For-Profit	522 (68.4)	241 (31.6)	
Non-Profit	1157 (81.8)	257 (18.2)	
Cooperative	419 (83.5)	83 (16.5)	

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 21: Intercorrelations for Intentions to Remain at Current Center in Coming Year and Predictor Variables

Measure	1	2	3	4	5	6
1. Working at Current Center in Coming Year	---					
2. Age	.18***	---				
3. Education	-.07***	.01	---			
4. Years in Childcare	.18***	.53***	.02	---		
5. Years at Current Center	.20***	.39***	-.03	.62***	---	
6. Auspice	.14***	.19***	.04	.13***	.16***	---

Note 1: Working at current center in one year coded as 0 = no, 1 = yes. Age coded as 1 = 24 and under, 2 = 25 to 34, 3 = 35 to 44, 4 = 45+. Education coded as 1 = High school graduate or less, 2 = Some post graduate/no degree, 3 = BA or higher. Years in Childcare Field coded as 1 = <1 to 3 years, 2 = 3 to 10 years, 3 = 10+ years. Years at Current Center coded as 1 = <1 to 3 years, 2 = 3 to 10 years, 3 = 10+ years. Auspice coded as 1 = For Profit, 2 = Non-Profit, 3 = Coop.

Note 2: * $p < .05$; ** $p < .01$; *** $p < .001$.

16. Working in Childcare Field in 3-Years

Table 22: Frequencies for Predictor Variables as a Function of Intentions to Remain within the Childcare Field in the Coming 3-Years

Variable	Working in Childcare in 3-Years YES n(%)	Working in Childcare in 3-Years NO n(%)	χ^2 (2 or 3 [^])
Age			53.60***
24 and Under	588 (71.8)	231 (28.2)	
25 to 34	1251 (75.5)	405 (24.5)	
35 to 44	783 (85.6)	132 (14.4)	
45+	442 (78.6)	120 (21.4)	
Education (any field)			53.96***
High School Grad. or less	481 (78.5)	132 (21.5)	
Some Post Graduate/No Degree	2133 (80.2)	527 (19.8)	
Bachelor's Degree or Higher	446 (67.0)	220 (33.0)	
Years in Childcare Field			28.92***
Less than 1 to 3 years (ref.)	691 (73.2)	253 (26.8)	
3 to 10 years	1371 (76.7)	417 (23.3)	
10+ years	1014 (82.6)	214 (17.4)	
Years at Current Center			19.61***
Less than 1 to 3 years (ref.)	1284 (74.9)	430 (25.1)	
3 to 10 years	1309 (78.3)	363 (21.7)	
10+ years	401 (84.2)	75 (15.8)	
Auspice			20.48***
For-Profit	538 (71.4)	215 (28.6)	
Non-Profit	1107 (79.4)	288 (20.6)	
Cooperative	398 (80.2)	98 (19.8)	

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 23: Intercorrelations for Intentions to Remain within the Childcare Field in the Coming 3-Years and Predictor Variables

Measure	1	2	3	4	5	6
1. Working at Current Center in Coming Year	---					
2. Age	.08***	---				
3. Education	-.08***	.01	---			
4. Years in Childcare	.08***	.53***	.02	---		
5. Years at Current Center	.07***	.39***	-.03	.62***	---	
6. Auspice	.08***	.09***	.04	.13***	.16***	---

Note 1: Remaining in childcare field in the coming three years coded as 0 = no, 1 = yes. Age coded as 1 = 24 and under, 2 = 25 to 34, 3 = 35 to 44, 4 = 45+. Education coded as 1 = High school graduate or less, 2 = Some post graduate/no degree, 3 = BA or higher. Years in Childcare Field coded as 1 = <1 to 3 years, 2 = 3 to 10 years, 3 = 10+ years. Years at Current Center coded as 1 = <1 to 3 years, 2 = 3 to 10 years, 3 = 10+ years. Auspice coded as 1 = For Profit, 2 = Non-Profit, 3 = Coop.

Note 2: * $p < .05$; ** $p < .01$; *** $p < .001$.

17. Job Stability

Table 24: Means, Standard Deviations, and Intercorrelations for Job Stability and Predictor Variables

Variable	<u>M</u>	<u>SD</u>	1	2	3	4	5
Job Stability	3.96	1.02	-.03*	-.003	.07***	.10***	.02
Predictor Variables							
1. Age	2.31	.96	---				
2. Education	2.01	.57	.01	---			
3. Years in Childcare	2.07	.74	.53***	.02	---		
4. Years at Current Center	1.68	.68	.39***	-.03	.62***	---	
5. Auspice	1.90	.68	.09***	.04	.13***	.16***	---

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

18. Working at Current Center in One Year

<i>Table 25: Mean Values & Frequencies for Predictor and Control Variables as a Function of Intentions to Remain at Center in the Coming Year</i>			
Variable	Working at Center in 1-Yr. YES	Working at Center in 1-Yr. NO	χ^2 or t
Gross Hourly Wages	11.32	10.29	-7.41***
Pay, Benefit, Promotion Score	3.15	2.36	-13.31***
Unionization (%)	78.5	21.5	10.68***
Promotion Opportunities (%)	22.1	77.9	41.32***
Professional Development (%)	78.2	21.8	17.34***
Nature of the Work (%)	78.1	21.9	.78
Co-Worker Relationship Satisfaction	6.83	6.24	-8.04***
Supervisory Relationship Satisfaction	6.69	5.61	-11.94***
Centralization	5.59	4.57	-10.76***
Formalization	3.03	2.54	-7.07***
Organizational Influence	13.56	12.20	-11.04***
Work Situation	39.85	34.34	-18.38***
Work Environment	5.92	5.08	-10.84***
Note 1: Chi-square test used for unionization, nature of work, promotion opportunities, and professional development variables; t-test used for all other variables. * $p < .05$; ** $p < .01$; *** $p < .001$.			

Table 26: Intercorrelations for Intentions to Remain at Current Center in Coming Year and Predictor Variables

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Remain at Center in Coming Year	---													
2. Gross Hourly Wages	.12***	---												
3. Pay, Benefit, Promotion Score	.21***	.22***	---											
4. Unionization	.06***	.36***	.07***	---										
5. Promotional Opportunities	.10***	-.05**	.18***	-.04	---									
6. Professional Development	.07***	.20***	.09***	.07***	.03	---								
7. Positive Aspect of Work	-.02	-.05**	-.003	.002	.01	-.001	---							
8. Co-Worker Relationship	.14***	.03*	.12***	-.02	.05**	.04*	-.01	---						
9. Supervisory Relationship	.21***	.02	.23***	-.05**	.15***	.06***	-.01	.30***	---					
10. Centralization	.18***	.01	.25***	-.01	.16***	.04*	-.06	.23***	.57---	---				
11. Formalization	.11***	.34***	.17***	.24***	.06***	.21***	-.02	.13***	.16***	.17***	---			
12. Organizational Influence	.17***	.27***	.11***	.10***	.09***	.16***	-.05**	.16***	.28***	.39***	.25---	---		
13. Work Situation	.32***	.05**	.36***	-.002	.19***	.05***	-.004	.28***	.45***	.48***	.15***	.28***	---	
14. Work Environment	.18***	.10***	.32***	.02	.12***	.05***	-.02	.21***	.32***	.32***	.17***	.19***	.52***	---

Note 1: Unionization coded as 0 = not unionized, 1=unionized. Promotional opportunities coded as 0= no, 1=yes. Professional development coded as 0=no, 1=yes. Positive aspect of work coded 0 =other, 1= nature of the work.

Note 2: * $p < .05$; ** $p < .01$; *** $p < .001$.

19. Working in Childcare Field in Three Years

Table 27: Mean Values & Frequencies for Predictor and Control Variables as a Function of Intentions to Remain in Childcare Field in Coming Three Years

Variable	Working in Childcare in 3-Yrs. YES	Working in Childcare in 3-Yrs. NO	χ^2 or t
Gross Hourly Wages	11.33	10.37	-6.89***
Pay, Benefit, Promotion Score	3.11	2.54	-9.44***
Unionization (%)	77.8	22.2	17.08***
Promotion Opportunities (%)	77.4	22.6	59.98***
Professional Development (%)	77.6	22.4	10.88***
Nature of the Work (%)	77.9	22.1	.75
Co-Worker Relationship Satisfaction	6.82	6.34	-6.77***
Supervisory Relationship Satisfaction	3.63	5.85	-8.89***
Centralization	5.51	4.86	-6.88***
Formalization	2.98	2.73	-3.57***
Organizational Influence	13.49	12.48	-7.94***
Work Situation	39.71	34.84	-16.32***
Work Environment	5.88	5.26	-8.08***
Note 1: Chi-square test used for unionization, nature of work, promotion opportunities, and professional development variables; t-test used for all other variables. * $p < .05$; ** $p < .01$; *** $p < .001$.			

Table 28: Intercorrelations for Intentions to Remain in the Childcare Field in Coming Three Years and Predictor Variables

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Remain in Childcare Field	---													
2. Gross Hourly Wages	.11***	---												
3. Pay, Benefit, Promotion Score	.15***	.22***	---											
4. Unionization	.08***	.36***	.07***	---										
5. Promotional Opportunities	.13***	-.05**	.18***	-.04	---									
6. Professional Development	.05***	.20***	.09***	.07***		---								
7. Nature of the Work	.02	-.05**	-.003	.002	.01	-.001	---							
8. Co-Worker Relationship	.12***	.03*	.12***	-.02	.05**	.04*	-.01	---						
9. Supervisory Relationship	.15***	.02	.23***	-.05**	.15***	.06***	-.01	.30***	---					
10. Centralization	.11***	.01	.25***	-.01	.16***	.04*	-.03	.23***	.57***	---				
11. Formalization	.06***	.34***	.17***	.24***	.06***	.21***	-.02	.13***	.16***	.17***	---			
12. Organizational Influence	.13***	.27***	.11***	.10***	.09***	.16***	-.05**	.16***	.28***	.39***	.25***	---		
13. Work Situation	.29***	.05**	.36***	-.002	.19***	.05***	-.004	.28***	.45***	.48***	.15***	.28***	---	
14. Work Environment	.14***	.10***	.32***	.02	.12***	.05***	-.02	.21***	.32***	.32***	.17***	.19***	.52***	---

Note 1: Unionization coded as 0 = not unionized, 1=unionized. Promotional opportunities coded as 0=no, 1=yes. Professional development coded as 0=no, 1=yes. Positive aspect of work coded 0=other, 1= nature of the work.

Note 2: * $p < .05$; ** $p < .01$; *** $p < .001$.

20. Level of Job Stability

Table 29: Intercorrelations for Job Stability and Predictor Variables

Measure	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Job Stability	3.96	1.02	---												
2. Gross Hourly Wages	11.10	3.64	.01	---											
3. Pay, Benefit, Promotion Score	2.98	1.60	.19***	.22***	---										
4. Unionization	.14	.35	.07***	.36***	.07***	---									
5. Promotional Opportunities	.24	.43	.08***	-.05**	.18***	-.04	---								
6. Professional Development	.77	.42	.06***	.20***	.09***	.07***	.03	---							
7. Nature of the Work	.82	.39	-.02	-.05**	-.003	.002	.01	-.001	---						
8. Co-Worker Relationship	6.69	1.69	.19***	.03*	.12***	-.02	.05**	.04*	-.01	---					
9. Supervisory Relationship	6.45	2.18	.21***	.02	.23***	-.05**	.15***	.06***	-.01	.30***	---				
10. Centralization	5.34	2.36	.22***	.01	.25***	-.01	.16***	.04*	-.03	.23***	.57***	---			
11. Formalization	2.89	1.85	.09***	.34***	.17***	.24***	.06***	.21***	-.02	.13***	.16***	.17***	---		
12. Organizational Influence	13.25	3.30	.25***	.27***	.11***	.10***	.09***	.16***	-.05**	.16***	.28***	.39***	.25***	---	
13. Work Situation	38.61	7.06	.29***	.05**	.36***	-.002	.19***	.05***	-.004	.28***	.45***	.48***	.15***	.28***	---
14. Work Environment	5.73	1.93	.19***	.10***	.32***	.02	.12***	.05***	-.02	.21***	.32***	.32***	.17***	.19***	.52***

Note 1: Unionization coded as 0 = not unionized, 1=unionized. Promotional opportunities coded as 0=no, 1=yes. Professional development coded as 0=no, 1=yes. Positive aspect of work coded 0=other, 1= nature of the work.

Note 2: * $p < .05$; ** $p < .01$; *** $p < .001$.

21. Working at Current Center in One Year

Table 30: Frequencies for Categorical Predictor Variables as a Function of Intentions to Remain Working at Current Center in Coming Year

Variable	Working at Current Center in 1 Yr. YES n(%)	Working at Current Center in 1 Yr. NO n(%)	χ^2 (2 or 3 [^])
Auspice			62.14***
For-Profit	522 (68.4)	241 (31.6)	
Non-Profit	1157 (81.8)	257 (18.2)	
Cooperative	419 (83.5)	83 (16.5)	
Age [^]			142.40***
24 and Under	542 (65.9)	281 (34.1)	
25 to 34	1288 (76.6)	394 (23.4)	
35 to 44	800 (85.7)	133 (14.3)	
45+	500 (88.5)	65 (11.5)	
Education (any field)			23.41***
High School Grad. or less	511 (81.2)	118 (18.8)	
Some Post Graduate/No Degree	2128 (79.1)	561 (20.9)	
Bachelor's Degree or Higher	483 (71.3)	194 (28.7)	
Years in Childcare Field			134.48***
Less than 1 to 3 years (ref.)	638 (66.7)	318 (33.3)	
3 to 10 years	1401 (77.8)	400 (22.2)	
10+ years	1089 (87.3)	158 (12.7)	
Years at Current Center			162.14***
Less than 1 to 3 years (ref.)	1200 (69.3)	531 (30.7)	
3 to 10 years	1407 (83.3)	282 (16.7)	
10+ years	450 (92.2)	38 (7.8)	
Union Membership			10.68***
Unionized	370 (84.5)	68 (15.5)	
Non-Unionized	2063 (77.6)	597 (22.4)	
Promotion Opportunities			41.32***
Yes	794 (85.6)	134 (14.4)	
No	2238 (75.5)	725 (24.5)	
Professional Development			17.34***
Yes	2433 (79.7)	620 (20.3)	
No	682 (73.3)	249 (26.7)	
Positive Aspect of the Work			.77 ($p = .38$)
Nature of the Work	2274 (77.8)	649 (22.2)	
Other	523 (79.4)	136 (20.6)	
Note: * $p < .05$; ** $p < .01$; *** $p < .001$.			

Table 31: Mean Values (SD) for Continuous Predictor and Control Variables as a Function of Intentions to Remain Working at Current Center in Coming Year

Variable	Working at Current Center in 1 Yr. YES	Working at Current Center in 1 Yr. NO	<i>t</i>
Gross Hourly Wages	11.32 (3.61)	10.29 (3.60)	-7.41***
Pay, Benefit, Promotion Score	3.15 (1.57)	2.36 (1.55)	-13.31***
Co-Worker Relationship Satisfaction	6.83 (1.58)	6.24 (1.95)	-8.04***
Supervisory Relationship Satisfaction	6.69 (2.03)	5.61 (2.45)	-11.94***
Centralization	5.59 (2.26)	4.57 (2.54)	-10.76***
Formalization	3.03 (1.84)	2.54 (1.82)	-7.07***
Organizational Influence	13.56 (3.31)	12.20 (3.10)	-11.04***
Work Situation	39.85 (6.34)	39.34 (7.77)	-18.38***
Work Environment	5.92 (1.85)	5.08 (2.08)	-10.84***

Note 1: * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 32: Intercorrelations for Intentions to Remain at Current Center in Coming Year and Predictor Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	---																	
2	.14***	---																
3	.18***	.09***	---															
4	-.07***	.04	.01	---														
5	.18***	.13***	.53***	.02	---													
6	.20***	.16***	.39***	-.03	.62***	---												
7	.06***	.18***	.09***	.07***	.16***	.15***	---											
8	.10***	.001	-.15***	-.001	-.16***	-.17***	-.04	---										
9	.07***	.16***	.05**	.08***	.20***	.09***	-.07***	.03	---									
10	-.02	-.02	.01	-.03	-.01	.02	.002	.01	-.001	---								
11	.19***	.30***	.20***	.19***	.37***	.32***	.36***	-.05**	.20***	-.05**	---							
12	.21***	.17***	.03	-.07***	.01	.02	.07***	.18***	.09***	-.003	.22***	---						
13	.14***	.03	-.01	.03	.01	.04*	-.02	.05**	.04*	-.01	.03*	.17***	---					
14	.21***	.04*	.05***	-.03*	.03	-.02	-.05**	.15***	.06***	-.01	.02	.23***	.30***	---				
15	.18***	.08***	-.02	-.01	-.04**	-.06***	-.01	.16***	.04*	-.03	.01	.25***	.23***	.57***	---			
16	.11***	.32***	.05**	.12***	.16***	.14***	.24***	.06***	.21***	-.02	.34***	.17***	.13***	.16***	.17***	---		
17	.17***	.11***	.07***	.12***	.22***	.21***	.10***	.09***	.16***	-.05**	.27***	.11***	.16***	.28***	.39***	.25***	---	
18	.32***	.09***	.03	-.06***	.03	.01	-.002	.19***	.05***	-.004	.05**	.36***	.28***	.45***	.48***	.15***	.28***	---
19	.18***	.05*	-.02	-.03	.01	-.03	.02	.12***	.05***	-.02	.10***	.32***	.21***	.32***	.32***	.17***	.19***	.52**

Note 1: (1) Working in childcare in 3 years; (2) auspice; (3) age; (4) education; (5) years in childcare; (6) years at current center; (7) unionization; (8) promotional opportunities; (9) professional development; (10) nature of the work (working with children); (11) gross wages; (12) pay/benefit/promotion satisfaction; (13) co-workers satisfaction; (14) supervisory satisfaction; (15) centralization; (16) formalization; (17) organizational influence; (18) work situation; and, (19) work environment.

Note 2: Remaining at current center in coming year coded as 0 = no, 1 = yes. Auspice coded as 1=For Profit, 2=Non-Profit, 3=Coop. Age coded as 1 = 24 and under, 2= 25 to 34, 3=35 to 44, 4 = 45+. Education coded as 1=High school graduate or less, 2=Some post graduate/no degree, 3= BA or higher. Years in Childcare Field coded as 1=<1 to 3 years, 2 = 3 to 10 years, 3=10+ years. Years at Current Center coded as 1=<1 to 3 years, 2 = 3 to 10 years, 3=10+ years. Unionization coded as 0=no, 1=unionized. Promotional opportunities coded as 0=no, 1=yes. Professional development coded as 0=no, 1=yes. Positive aspect of work coded 0 =other, 1= nature of the work.

Note 3: * $p < .05$; ** $p < .01$; *** $p < .001$.

22. Working in Childcare Field in Coming Three Years

<i>Table 33: Frequencies for Categorical Predictor Variables as a Function of Intentions to Remain Within Childcare Field in Coming Three Years</i>			
Variable	Working in Childcare Field in 3 Yrs. YES n(%)	Working in Childcare Field in 3 Yrs. NO n(%)	χ^2 (2 or 3 [^])
Auspice			20.48***
For-Profit	538 (71.4)	215 (28.6)	
Non-Profit	1107 (79.4)	288 (20.6)	
Cooperative	398 (80.2)	98 (19.8)	
Age [^]			53.60***
24 and Under	588 (71.8)	231 (28.2)	
25 to 34	1251 (75.5)	405 (24.5)	
35 to 44	783 (85.6)	132 (14.4)	
45+	442 (78.6)	120 (21.4)	
Education (any field)			53.95***
High School Grad. or less	481 (78.5)	132 (21.5)	
Some Post Graduate/No Degree	2133 (80.2)	527 (19.8)	
Bachelor's Degree or Higher	446 (67.0)	220 (33.0)	
Years in Childcare Field			28.92***
Less than 1 to 3 years (ref.)	691 (73.2)	253 (26.8)	
3 to 10 years	1371 (76.7)	417 (23.3)	
10+ years	1014 (82.6)	214 (17.4)	
Years at Current Center			19.61***
Less than 1 to 3 years (ref.)	1284 (74.9)	430 (25.1)	
3 to 10 years	1309 (78.3)	363 (21.7)	
10+ years	401 (84.2)	75 (15.8)	
Union Membership			17.08***
Unionized	375 (85.4)	64 (14.6)	
Non-Unionized	2010 (76.6)	615 (23.4)	
Promotion Opportunities			59.98***
Yes	806 (86.7)	124 (13.3)	
No	2186 (74.5)	749 (25.5)	
Professional Development			10.88***
Yes	2376 (78.8)	639 (21.2)	
No	676 (73.6)	242 (26.4)	
Positive Aspect of the Work			.75 ($p = .39$)
Nature of the Work	2259 (78.2)	630 (21.8)	
Other	502 (76.6)	153 (23.4)	
Note: * $p < .05$; ** $p < .01$; *** $p < .001$.			

Table 34: Mean Values (SD) for Continuous Predictor and Control Variables as a Function of Intentions to Remain Working in Childcare Field in Coming 3 Years

Variable	Remain in Childcare Field in 3 Yrs. YES	Remain in Childcare Field in 3 Yrs. NO	<i>t</i>
Gross Hourly Wages	11.33 (3.67)	10.37 (3.43)	-6.89***
Pay, Benefit, Promotion Score	3.11 (1.60)	2.54 (1.54)	-9.44***
Co-Worker Relationship Satisfaction	6.82 (1.61)	6.34 (1.90)	-6.77***
Supervisory Relationship Satisfaction	6.63 (2.09)	5.85 (2.37)	-8.89***
Centralization	5.51 (2.31)	4.86 (2.49)	-6.88***
Formalization	2.98 (1.85)	2.73 (1.82)	-3.57***
Organizational Influence	13.49 (3.30)	12.48 (3.15)	-7.94***
Work Situation	39.71 (6.50)	34.84 (7.70)	-16.32***
Work Environment	5.88 (1.87)	5.26 (2.08)	-8.08***
Note 1: * $p < .05$; ** $p < .01$; *** $p < .001$.			

Table 35: Intercorrelations for Intentions to Remain Working in Childcare Field in Coming Three Years

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	---																	
2	.08***	---																
3	.08***	.09***	---															
4	-.08***	.04	.01	---														
5	.08***	.13***	.53***	.02	---													
6	.07***	.16***	.39***	-.03	.62***	---												
7	.08***	.18***	.09***	.07***	.16***	.15***	---											
8	.13***	.001	-	-.001	-.16***	-.17***	-.04	---										
9	.05***	.16***	.05**	.08***	.20***	.09***	.07***	.03	---									
10	.02	-.02	.01	-.03	-.01	.02	.001	.01	-.001	---								
11	.11***	.30***	.20***	.19***	.37***	.32***	.36***	-.05**	.20***	-	---							
12	.15***	.17***	.03	-.07***	.01	.02	.07***	.18***	.09***	.05**	-.003	.22***	---					
13	.12***	.03	-.01	.03	.01	.04*	-.02	.05**	.04*	-.01	.03*	.12***	---					
14	.15***	.04*	.05***	-.03*	.03	-.02	-.05**	.15***	.06***	-.01	.02	.23***	.30***	---				
15	.11***	.08***	-.02	-.01	-.04**	-.06***	-.01	.16***	.04*	-.03	.01	.25***	.23***	.57***	---			
16	.06***	.32***	.05**	.12***	.16***	.14***	.24***	.06***	.21***	-.02	.34***	.17***	.13***	.16***	.17***	---		
17	.13***	.11***	.07***	.12***	.22***	.21***	.10***	.09***	.16***	-	.27***	.11***	.16***	.28***	.39***	.25***	---	
18	.29***	.09***	.03	-.06***	.03	.01	-.002	.19***	.05***	.05**	-.004	.05**	.36***	.28***	.45***	.48***	.15***	.28**
19	.14***	.05*	-.02	-.03	.01	-.03	.02	.12***	.05***	-.02	.10***	.32***	.21***	.32***	.32***	.17***	.19**	.52**

Note 1: (1) Working in childcare in 3 years; (2) auspice; (3) age; (4) education; (5) years in childcare; (6) years at current center; (7) unionization; (8) promotional opportunities; (9) professional development; (10) nature of the work (working with children); (11) gross wages; (12) pay/benefit/promotion satisfaction; (13) co-workers satisfaction; (14) supervisory satisfaction; (15) centralization; (16) formalization; (17) organizational influence; (18) work situation; and, (19) work environment.

Note 2: Remaining at current center in coming year coded as 0 = no, 1 = yes. Auspice coded as 1=For Profit, 2=Non-Profit, 3=Coop. Age coded as 1 = 24 and under, 2= 25 to 34, 3=35 to 44, 4 = 45+. Education coded as 1=High school graduate or less, 2=Some post graduate/no degree, 3= BA or higher. Years in Childcare Field coded as 1=<1 to 3 years, 2 = 3 to 10 years, 3=10+ years. Years at Current Center coded as 1=<1 to 3 years, 2 = 3 to 10 years, 3 =10+ years. Unionization coded as 0 = not unionized, 1=unionized. Promotional opportunities coded as 0= no, 1=yes. Professional development coded as 0=no, 1=yes. Positive aspect of work coded 0 =other, 1= nature of the work.

Note 2: * $p < .05$; ** $p < .01$; *** $p < .001$.

23. Job Stability

Table 36: Intercorrelations for Job Stability & Predictor Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	---																	
2	.02	---																
3	-.03*	.09***	---															
4	-.003	.04	.01	---														
5	.07***	.13***	.53***	.02	---													
6	.10***	.16***	.39***	-.03	.62***	---												
7	-.07***	.18***	.09***	.07***	.16***	.15***	---											
8	.08***	.001	-.15***	-.001	-.16***	-.17***	-.04	---										
9	.06***	.16***	.05**	.08***	.12***	.09***	.07***	.03	---									
10	-.02	-.02	.01	-.03	-.01	.02	.002	.01	-.001	---								
11	.01	.30***	.20***	.19***	.37***	.32***	.36***	-.05**	.20***	-.05**	---							
12	.19***	.17***	.03	-.07***	.01	.02	.07***	.18***	.09***	-.003	.22***	---						
13	.19***	.03	-.01	.03	.01	.04*	-.02	.05**	.04*	-.01	.03*	.12***	---					
14	.21***	.04*	.05***	-.03*	.03	-.02	-.05**	.15***	.06***	-.01	.02	.23***	.30***	---				
15	.22***	.08***	-.02	-.01	-.04**	-.06***	-.01	.16***	.04*	-.03	.01	.25***	.23***	.57***	---			
16	.09***	.32***	.05**	.12***	.16***	.14***	.24***	.06***	.21***	-.02	.34***	.17***	.13***	.16***	.17***	---		
17	.25***	.11***	.07***	.12***	.22***	.21***	.10***	.09***	.16***	-.05**	.27***	.11***	.16***	.28***	.39***	.25***	---	
18	.29***	.09***	.03	-.06***	.03	.01	-.002	.19***	.05***	-.004	.05**	.36***	.28***	.45***	.48***	.15***	.28*	---
19	.19***	.05*	-.02	-.03	.01	-.03	.02	.12***	.05***	-.02	.10***	.32***	.21***	.32***	.32***	.17***	.19*	.52*

Note 1: (1) Working in childcare in 3 years; (2) auspice; (3) age; (4) education; (5) years in childcare; (6) years at current center; (7) unionization; (8) promotional opportunities; (9) professional development; (10) nature of the work (working with children); (11) gross wages; (12) pay/benefit/promotion satisfaction; (13) co-workers satisfaction; (14) supervisory satisfaction; (15) centralization; (16) formalization; (17) organizational influence; (18) work situation; and, (19) work environment.

Note 2: Remaining at current center in coming year coded as 0 = no, 1 = yes. Auspice coded as 1=For Profit, 2=Non-Profit, 3=Coop. Age coded as 1 = 24 and under, 2= 25 to 34, 3=35 to 44, 4 = 45+. Education coded as 1=High school graduate or less, 2=Some post graduate/no degree, 3= BA or higher. Years in Childcare Field coded as 1=<1 to 3 years, 2 = 3 to 10 years, 3=10+ years. Years at Current Center coded as 1=<1 to 3 years, 2 = 3 to 10 years, 3=10+ years. Unionization coded as 0 = not unionized, 1=unionized. Promotional opportunities coded as 0=no, 1=yes. Professional development coded as 0=no, 1=yes. Positive aspect of work coded 0=other, 1= nature of the work.

Note 2: * $p < .05$; ** $p < .01$; *** $p < .001$.

Appendix L: Human Subjects Exemption

From: "Office for the Protection of Human Subjects" <ophs@berkeley.edu>
Subject: Re: Question Regarding Research Review
Date: Wed, October 20, 2010 2:21 pm
To: rmatthew@berkeley.edu

Dear Ms. Matthew,

Thank you for your inquiry. As described in your email correspondence below, your project does not meet the threshold definition of "human subjects" research set forth in Federal Regulations at 45 CFR 46.102(f). The Office for Human Research Protections of the Department of Health and Human Services does not consider research involving only coded private information or specimens to involve human subjects if the following conditions are both met:

- (1) the private information or specimens were not collected specifically for the currently proposed research project through an interaction or intervention with living individuals; and,
- (2) the investigator(s) cannot readily ascertain the identity of the individual(s) to whom the coded private information or specimens pertain.

Accordingly, your project does not fall within the scope of the Committee's responsibilities, and you are free to proceed with your research without further approval from this office. Please note, however, that should the parameters of your study change to include human subjects research, you will need to submit a protocol for approval. Information on what constitutes human subjects research can be found on our website: <http://cphs.berkeley.edu/>.

If you have any questions about this matter, please contact the OPHS staff at 642-7461; FAX 643 6272; E-Mail ophs@berkeley.edu.

Sincerely,

Melanie Hassel, MS
Research Compliance Analyst III

Office for the Protection of Human Subjects
University of California, Berkeley
2150 Shattuck Ave., Suite 313 Berkeley, CA 94704
510-642-7461
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