GIVING BIRTH IN THE IVORY TOWER: A CLOSER LOOK AT THE UNIQUE NEEDS OF PREGNANT AND MOTHERING GRADUATE STUDENTS

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DEDICATION

For my amazing and wonderful children who have sacrificed so much for me to finally finish this degree and dissertation: Shane “Landon” Ellis, Braeden Connor Ellis, Reagan Aaralyn Ellis, Alexander “Xander” Thomas Guffey, and Jude MacClaine Guffey. Thank you so much for being my inspirations and the loves of my life. You have all been so amazing, adaptable, supportive, and understanding throughout this as I have missed countless milestones and important events in your lives to pursue this goal. I am so proud to have each of you call me Mom, Mommy, Mama, and Mom-Mom. I love you so much and am so proud of each and every one of you.

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ABSTRACT

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GIVING BIRTH IN THE IVORY TOWER: A CLOSER LOOK AT THE UNIQUE NEEDS OF PREGNANT AND MOTHERING GRADUATE STUDENTS

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The purpose of this study is to examine the lived experiences of graduate student women who experienced pregnancy, childbirth, and mothering while enrolled in graduate school using Berlant's (2011) "cruel optimism." The primary goal of this study is to understand the subjective experiences of pregnant graduate students and how accommodations for pregnancy and birth related absences are handled. To accomplish this goal, the following questions guided my research: In what ways was the student facilitated or hindered by the formal and/or informal policies (or the lack thereof) in place to guide decisions about pregnancy-related absences and maternity leave? What sort of support networks and institutional supports helped students be successful or how did a lack of support negatively impact their success? How can graduate departments and universities best support pregnant and mothering graduate students?

There are rarely formal policies set in place for pregnancy during graduate school and this leads to departments making decisions on a case-by-case basis. Such a tactic leads to inequality and unfairness across universities and departments (Ellis 2014; Ellis and Gullion 2015). Further, while faculty mothers would likely qualify for maternity

leave or the Family Medical Leave Act (FMLA), most graduate students are employed by their departments on a part-time basis and do not work enough hours to qualify for FMLA. Title IX is supposed to protect pregnant students from discrimination as far as their coursework goes (Mason, Wolfinger, and Goulden 2013; Mason and Younger 2014), but it is generally not applied to protect graduate students' employment at the university. Pregnant graduate students who work at their university are in a gray area where they do not receive the benefits of faculty members but also do not fully receive the protections of students. This study explores how a lack of formal policies impacts graduate student mothers and how universities can better support graduate student mothers.

TABLE OF CONTENTS

LIST OF TABLES

Table

CHAPTER I

INTRODUCTION

Much has been written about the experiences of women in academia who are faculty members and are also mothers (Bassett 2005; Bhattacharjee 2004; Colbeck and Drago 2005; Kawash 2011; Ward and Wolf-Wendel 2004), and a small body of research has focused expressly on the experiences of graduate student mothers (Anaya 2011; Daugherty 2012; Ellis 2014; Ellis and Gullion 2015; Gardner 2008; Lynch 2008; Murphy and Cloutier-Fisher 2002; Williams 2007), but there has been very little written about the experiences of pregnant graduate students (CohenMiller 2014; Cook 2016). While there is certain to be much overlap between the struggles of faculty and student mothers in terms of work-life balance, conditions unique to graduate student mothers warrant investigation. This is especially true for those experiencing pregnancy in graduate school; and include issues of financial instability, career uncertainty, relationships with their advisors, etc. (Springer, Parker, and Levitan-Reid 2009).

Researchers have demonstrated repeatedly that male professors' children are seen as an asset to men's careers, while women pay a "baby penalty" and face negative career consequences at every level of their academic careers (Mason and Goulden 2004; Mason 2013; Mason, Wolfinger, and Goulden 2014). After graduation, women and mothers are significantly more likely to be employed as adjunct and contingent faculty and off the tenure track (Mason 2013; Mason et al. 2014). A full 70 percent of female graduate

students reported that a tenure track faculty job is incompatible with family life (Mason 2013; Mason et al. 2014).

In order to meet the needs of the academy, graduate students are expected to treat their academic programs as full-time jobs, especially if they are receiving funding from their departments (Ellis 2014; Ellis and Gullion 2015). At the same time, women are still responsible for most of the housework and child care and they face expectations from the dominant culture to be 'good mothers' in line with cultural expectations of 'intensive mothering' (Choi, Henshaw, Baker, and Tree 2005; Hays 1996). The full-time demands of both motherhood and graduate school are incompatible idealizations pushed upon graduate student mothers (Ellis 2014; Ellis and Gullion 2015). Graduate student mothers have reported dissatisfaction in both roles and report working in conditions that can be subsumed under the notion of a "second shift" as articulated by Hochschild and Machung ([1989] 2012; Ellis 2014).

There seem to be two distinctly different camps of opinions on having children in graduate school. One school of thought is that that graduate school is the perfect time to begin a family due to the flexibility of schedules and close-knit community that graduate school sometimes offers (Chamberlin 2005; Hunt 2015; Martin 2014). Graduate school is frequently seen as more flexible than the tenure track as well (Hunt 2015). The other school of thought is that the demands of graduate school are such that juggling a new baby and coursework is exceedingly difficult and having a baby could negatively impact a woman's early career (Mason and Goulden 2004; Mason et al. 2013). While it might seem ideal to some people that women should delay having children until after graduate

school, after finding a job, after making tenure, it is important to keep in mind that the ages of women in graduate school already coincide with their years of peak fertility (Mason et al. 2013). By the time a woman attains tenure, if she does not encounter fertility problems, she and her baby would be at increased risks for all sorts of issues due to advanced maternal age (defined as over age 35; Mason et al. 2013).

A pregnant woman experiences numerous physical and psychological changes, and there is little research on how this biological process interacts with a woman's experience of graduate school (Cook 2016). Along with hormonal changes and physical changes and limitations, many pregnant women also experience mood swings, frustration, and anger that they did not experience prior to pregnancy (Cook 2016; Martin and Redshaw 2010). Women who previously thrived in graduate school may find it difficult to navigate without adaptation and support (Cook 2016). By examining the lived experiences of pregnant graduate students, I recommend formal policy changes that will help better support pregnant and mothering graduate students.

In social science and feminist research, *motherhood* generally signifies the "patriarchal institution" that is defined and constrained by men and represses women (O'Reilly 2007:794). In contrast, *mothering* is defined by women, centered around their experiences, and is potentially empowering (O'Reilly 2007). O'Reilly (2007), discusses Adrienne Rich's distinction between motherhood and mothering, "In other words, while motherhood, as an institution, is a male-defined site of oppression, women's own experiences of mothering can nonetheless be a source of power (p. 794). Kinser (2010) notes that many feminist theorists focus on the ways that motherhood and mothering

practices are “largely shaped by social expectations and norms, dominant assumptions about what makes “good” or “bad” mothers, women’s roles and opportunities in their cultures and subcultures, and government (and other institutional) support of different families” (p. 21). For the purpose of this study, mothering is the act of mothers caring for children and motherhood is the social structure that surrounds mothering.

Motherhood and a PhD are both desires meant to make us happy but what if the two things one desires so deeply are also barriers to one another? What if the two biggest things that someone wants in life are at complete odds with one another and make one another nearly impossible? Berlant (2011) calls this predicament “cruel optimism.” Indeed, growing up as a little girl, I was assured that I could “have it all” but the costs and sacrifices of having it all were rarely discussed. It was the realization that the pursuit of a PhD, coupled with my own desire to be an involved mother were in constant conflict with one another that led me to pursue research in motherhood, mothering, and academia. Cruel optimism is an apt description of pregnancy and motherhood in graduate school.

Studies have shown that female graduate students experience more stress and distress than their male counterparts (Hodgson and Simoni 1995). The median age of women completing their doctoral degree is 33.6 years, which also coincides with their childbearing years (Springer et al. 2009). The National Center for Education Statistics (NCES) indicated graduate student mothers are a higher risk of attrition than almost any other group in the American Academy (Gardner 2008; Lynch 2008).

Existing research focuses on the struggles graduate student parents face. This includes negotiating the conflicting roles of graduate student and parent, lack of finances

to support a family, time constraints of being a parent and a student, difficulties participating in children's extra-curricular activities, and the ever-pressing need for more child care options (Ellis 2014; Ellis and Gullion 2015; Lynch 2008). Pregnant students will run into some unique problems that graduate student parents with existing children may not face. While the existing research on graduate student mothers reports women hide their motherhood status (Ellis 2014; Ellis and Gullion 2015; Lynch 2008), pregnancy becomes impossible to hide at a certain point. Pregnant graduate students also need to attend frequent appointments with their physician in order to monitor the health of the baby, and their own health. Occasionally, a student might have to miss class that they would otherwise attend (as either a student or the instructor), to attend a doctor's appointment or due to other health concerns. Exploring how academic departments handled these sorts of absences helped shine a light on the treatment of pregnant graduate students and how supported they felt by their department.

Universities rarely have formal policies set in place for pregnancy during graduate school, and this leads to departments and faculty making decisions on a case-by-case basis. Such a tactic leads to inequality and unfairness across universities and departments (Ellis 2014; Ellis and Gullion 2015). Further, while faculty mothers would likely qualify for maternity leave or the Family Medical Leave Act (FMLA), most graduate students are employed by their departments on a part-time basis and do not work enough hours to qualify for FMLA. Title IX is supposed to protect pregnant students from discrimination as far as their coursework goes (Mason et al. 2013; Mason and Younger 2014) but is generally not applied to protect graduate students' employment at the university.

Pregnant graduate students who work at their university are in a gray area where they do not receive the benefits faculty members receive and also do not fully receive the protections students qualify for. Some researchers argue Title IX should protect the jobs of pregnant graduate students and afford them the right to take maternity leave without penalty; however, it seems this is not well known or practiced at most universities (Mason et al. 2013; Mason and Younger 2014).

There is a paucity of research on pregnant graduate students and the existing research has been limited in scope due to small sample sizes and sample selections. CohenMiller (2014) included four participants, who were doctoral students from a single university, and all of whom were first-time mothers. Cook (2016) had seven participants, all of whom were first-time mothers, and all were enrolled in a doctoral program in social services. A research project of broader scope is needed to more fully examine the experiences of pregnant graduate students and to make recommendations for ways that the university can better support these students. While there have been some other studies of graduate student mothers that had participants who were pregnant during graduate school, those studies were not focused solely on the experience of pregnancy in graduate school.

The primary goal of this study is to understand the subjective experiences of pregnant and mothering graduate students and how accommodations for pregnancy-related absences and maternity leave are handled at a variety of different universities. To accomplish this goal, the following questions guided my research:

1. In what ways was the student facilitated or hindered by the formal and/or informal policies (or the lack thereof) in place to guide decisions regarding pregnancy related absences and maternity leave?
2. What sort of support networks and institutional supports helped students be successful or how did a lack of support negatively impact their success?
3. How can universities and graduate departments best support pregnant and mothering graduate students?

These research questions will address the underlying theoretical problem: What is the status of pregnant and mothering graduate students at universities in the United States?

My approach seeks to expand upon the research of CohenMiller (2014) and Cook (2016), framed in Berlant's theory of cruel optimism.

In Chapter II, I discuss the research conducted to date on pregnancies among graduate students as well as the existing research on motherhood and university life. I explore previous studies that examined the role of motherhood in academia for graduate students and faculty members. Next, I discuss the literature on intensive mothering and what it means to be a "good" mother in American culture and how this might conflict with what it means to be a "good" graduate student. I also provide an overview of my theoretical foundation in Berlant's writings.

In Chapter III, I present the methodology and methodological approach for this project. I include an overview of the research design, procedures for data collection, information about the participants in the project, and a discussion of how I performed the analysis.

Chapter IV presents the results of the study and a discussion of findings. I present a variety of emergent themes to underscore the richness of qualitative data. I rely heavily on the use of direct quotes from participants in this chapter in order to honor the voices and lived experiences of the participants.

In Chapter V, I summarize the project, noting limitations and suggestions for future research. I also explore the potential impact of this work and how it might benefit universities and help them to improve the experiences of pregnant and mothering graduate students.

CHAPTER II

LITERATURE REVIEW

Being a mother is supposed to be one of a woman's deepest desires. For those of us pursuing a PhD, earning our doctorate is also one of our deepest desires. Both of these pursuits are meant to make us happy but motherhood and graduate school also function as barriers to one another for many of us. When the two biggest things that you want in life are at complete odds with one another and make each other nearly impossible to attain, it becomes imperative to question the cultural claim that we can "have it all." Berlant (2011) calls this predicament "cruel optimism." The costs and sacrifices of having it all are rarely discussed. One graduate student mother stated, "Sometimes I see women and they're perpetuating this myth. There's a myth that you can have it all. You can't. You can have it all half-assed or a quarter but something has to go. There's just not enough hours in the day" (Ellis 2014:55). The awareness that pursuing my doctorate coupled with my own aspirations and the social pressure to be an engaged mother were in constant conflict with one another led me to pursue research in this area. Cruel optimism is a suitable portrayal of pregnancy and motherhood in graduate school. Zahed (2008) writes in her personal account of being a doctoral student and a mother:

> The two are mutually inhibitory. Student life means working long hours and receiving little money for your efforts. Child rearing means working long hours and receiving no money for your efforts. Therefore, if you are busy in the lab and have little money, how can you pay the high costs of child care? How can you be with your needy and irresistible infant and yet work overtime on campus? The

> most parsimonious answer is that you cannot raise your own infants and be a graduate student in science. (P.187)

A number of academics have written about their own difficulties and struggles when becoming pregnant in graduate school. Gullion (2008) wrote in *Mama PhD* of being told by her department chair that she could not be hired the following semester as a graduate teaching assistant because she was pregnant and it would be "too disruptive" to have her leave in the middle of the semester. This would have also meant losing her health insurance at a time when she most needed it. Gullion's graduate advisor exclaimed "We'll support you all day long if you're a migrant transsexual teenager who needs an abortion, but God forbid you're a straight woman who wants to have a baby!" (Gullion 2008:17). Fortunately, her graduate advisor and the Dean intervened and she was hired to work from home, but the message to her was clear: she was "a scholar, *negated*" (emphasis mine; Gullion 2008:17). Evans (2008) wrote about how she expected to be able to continue on with her studies while pregnant as usual but she experienced a complicated pregnancy with multiple rounds of bed rest, unexplained bleeding, and preterm contractions. She still attended class and worked from the hospital when she was admitted with a pulmonary embolism (Evans 2008). Evans (2008) tried to restructure her graduate assistant duties after being put on bed rest but her advisor suggested that she "might be able to do [her] work lying down" (p. 52). Neither of Evans' (2008) professors were willing to allow extensions on her final papers after the birth of her daughter when she was still on anticoagulants because of her pulmonary embolism.

I was only able to identify two studies that focused primarily on the experiences of pregnant graduate students. CohenMiller (2014) conducted three semi-structured interviews each with four pregnant graduate students from a Research I university. CohenMiller (2014) utilized an interdisciplinary theoretical framework to examine first-time doctoral student mothers and integrated visual data collection into a phenomenological study. CohenMiller (2014) found that there is a continued need for "examining internal practices and policies to support female doctoral students and promoting recruitment, retention, and equity throughout academia" (p. vii-viii). Cook (2016) conducted semi-structured interviews with seven participants, all first-time mothers who were enrolled in a doctoral program in the social services. Cook (2016) also used a phenomenological approach to develop a "qualitative understanding of how participants perceived barriers and facilitators to their academic success, specifically how pregnancy impacts the academic experience, the importance of positive and multiple supports, and how perceptions and cultural norms impact interactions" (p. 3). Both CohenMiller (2014) and Cook (2016) discussed the difficulties their participants faced as they navigated their new status as pregnant graduate student and new status as graduate student mothers. One of Cook's (2016) participants stated that she felt like she was wearing a scarlet letter after announcing that she was pregnant. Cook's (2016) participants also spoke of difficulties focusing while pregnant with one participant emphasizing the struggle she had after having to stop taking her ADHD medications

during her pregnancy, stating, “It was like taking away glasses and having to like [sic] try to find my way and not being able to see again” (p. 82).

Cook’s (2016) participants discussed health problems they experienced that complicated their progress in graduate school. Among the health problems Cook’s (2016) participants spoke of included sickness that lasted all day, extreme fatigue, respiratory infections, sciatic nerve pain, edema, and even severe dehydration that required hospitalization. One graduate student mother told Ellis (2014), “especially since I got pregnant, I had to actually take care of my body and I couldn’t just abuse myself the way colleagues could” (p. 66). There is a need for formal policies to address the needs of pregnant graduate students and to make sure they are able to take care of their own health and the health of their babies. It is also important that new graduate student mothers are given time to recover physically before being expected back in a classroom either as the student or the instructor.

While some of Cook’s (2016) participants were aware of some additional support that was available to them through their university, they chose not to utilize that help because they were worried about being seen as less capable and less competent than their non-pregnant peers. This sentiment is repeated throughout the literature on pregnancy in academia as participants who are both graduate students and faculty indicate over and over again that even if there are accommodations available to them, they are scared to use them for fear of negative repercussions on their student status or careers (Mason et al.

2013). One participant told Mason et al. (2013), “There is a pervasive attitude that the female graduate student in question must now prove to the faculty that she is capable of completing her degree, even when prior to the pregnancy there were absolutely no doubts about her capabilities and ambition” (p. 13). Women with children are discriminated against on the assumption that they do not get work done and that they are less serious and not dedicated to their careers while their counterparts who are fathers are seen as more mature and more equipped to handle their work (Mason et al. 2013).

Financial constraints are a huge concern for graduate student couples considering having a baby because most graduate students are making only a small stipend and many do not have access to health insurance (Mason et al. 2013). Babies are expensive, and in addition to health care costs, graduate student mothers (and fathers) will be faced with the cost of diapers, housing, child care, and clothing, (Mason et al. 2013) plus bottles, cribs, car seats, strollers, and formula and/or breast pumps (as well as the time costs associated with pumping) in addition to their already existing everyday expenses. The U.S. Department of Agriculture estimated that American parents would spend more than 13 thousand dollars a year on expenses for a baby or toddler born in the year 2015 (Lino, Kuczynski, Rodriguez, and Schap 2017). Child Care Aware of America (CCAoA 2019) examined the cost of child care in the United States in their 2019 report “The U.S. and the High Price of Child Care: An Examination of a Broken System” and found child care is unaffordable in every single state in the U.S.

The U.S. Department of Health and Human Services, Administration on Children and Families set a benchmark in 2016 stating that affordable child care should cost no more than 7% of a family's median annual income (CCAoA 2019). However, single parents pay an average 36% of their median household income for center-based infant care for one child; married couples pay an average of 11% of their median household income for center-based infant care for one child; and millennials pay anywhere from 18-42 percent of their annual income for center-based infant care for one child (CCAoA 2019). The federal poverty level in the U.S. in 2018 was $20,780 and the average cost of child care in the Midwest in 2019 was $20,914, exceeding 100% of the federal poverty level household income; the average cost of child care in the West was $21,327, again, exceeding 100% of the federal poverty level household income; the average cost of child care in the Northeast was $26,102, exceeding the 100% of the federal poverty level household income; in the South, the average cost of child care was $18,442, 88.7% of the federal poverty level household income (CCAoA 2019).

Graduate students are often paid low stipends that are under the federal poverty level, particularly for those with families. The Vice President and Chief Operating Officer of the National Association of Graduate and Professional Students, Joseph Verado, reports that nationally, stipends range from about $13,000-$34,000 depending on the location, the university, and the department (Flaherty 2018). Stipends vary across universities widely, but also across campuses. For example, at The University of Texas at

Austin from 2012-2013, graduate student teaching assistants with a 20-hour work week in the School of Information made $8,864, while graduate students in the College of Pharmacy made $19,336 and the lowest-paid graduate research assistant make $9,468 and the highest-paid made $28,330 (Patel 2014). Additionally, other sources of support vary across universities, such as tuition benefits and waivers. At The University of Texas at Austin, in 2013, graduate students received a $3,784 tuition benefit per semester and full health care coverage, valued at about $500 per month (Patel 2014). Graduate students point out that low-paying stipends often force them to take on extra jobs in order to make ends meet, even if this is forbidden by their university, and this ultimately means a longer time to degree and less time for writing and publishing (Patel 2015). In 2013, 8% of all PhD recipients reported more than $90,000 in student debt with students in the humanities and social sciences (typically the departments with the lowest stipends), holding most of that debt (Patel 2015). The average amount of education-related debt for doctoral graduates nearly doubled from 2003-2013 to $22,000 (this number includes PhDs who graduated with no debt-about half of the reporting group; Patel 2015).

A participant expressed frustration to Ellis (2014) over the exploitation of graduate students:

> The system is so broken; the university system as a whole is so broken…the university and our departments in particular have no incentive to treat us well, to pay us well, to make sure that we have any sort of quality of life. Why do they care? There's a whole line of people ready to replace us…and every system is going to push that boundary with its workers as far as it possibly can. Notice that nothing I have said so far is asking for consideration as a mom…it's asking for

> the system to be fair to everyone, including single white guys because it's not even fair to them. If your system isn't fair to single white guys, it's fucking unfair. (P. 166).

Lynch (2008) identified financial concerns such as funding for school and affordable child care as structural environments that have the greatest impact on graduate student mothers. Mothers participating in Lynch's (2008) study expressed frustration with low funding for limited amounts of time that failed to meet their healthcare and child care needs. A majority of Lynch's (2008) participants had to work outside of the university to receive enough money to support themselves and pay their expenses. Many students find themselves unable to maintain full-time enrollment after becoming mothers; seventy-three percent of Lynch's (2008) participants reported they had to change from full-time enrollment to part-time enrollment after giving birth. Many reported their funding was impacted negatively by this change in status (Lynch 2008). All the participants reported that they paid for child care out of pocket and that the expense of child care was not considered by their university in funding eligibility or decisions (Lynch 2008). Participants that had access to child care at their university (four out of the five universities in the study) reported they did not use it because it was too expensive or it had limited hours that did not work with the evening classes that graduate students are often required to take (Lynch 2008). All seven of Amirirad's (2016) single-mother doctoral student participants cited finances as the number one barrier they faced in completing their degrees.

The American Academy of Pediatrics (AAP) and the Pediatric Policy Council (PPC) have called on the U.S. Congress to pass the Family and Medical Insurance Leave (FAMILY) Act that would allow American workers to utilize the social insurance system to take up to 12 weeks of paid leave (with partial wage replacement) to care for themselves or their families, including for maternity or parental leave (AAP 2017). The PPC represents four major pediatric associations: The Academic Pediatric Association (APA), the American Pediatric Society (APS), the Association of Medical School Pediatric Department Chairs (AMSPDC), and the Society for Pediatric Research (SPR) (AAP 2017). These experts in children's health call for paid leave policies so parents are able to bond with and care for their children after birth when parental bonding is critical. They point out that the benefits of paid leave include higher vaccination rates, increased breastfeeding rates, and improved mental health for mothers, in addition to the marked effect on recovery that research shows exists for children who parents are able to take care of them during serious illness (AAP 2017). The FAMILY Act, S.337 was introduced to the U.S. Senate on February 7, 2017, read twice, and referred to the Committee on Finance according to The United States Congress (2017). On February 12, 2019, the FAMILY Act, S.463 was again introduced to the U.S. Senate, read twice, and referred to the Committee on Finance. An identical bill, H.R.1185, was introduced to the House of Representatives Ways and Means Committee on February 13, 2019, read twice, and then referred to the committee on Worker and Family Support.

The American College of Obstetricians and Gynecologists (ACOG 2018) has published a Postpartum Toolkit regarding returning to work and paid leave. Despite standard postpartum maternity leave being six weeks in the United States, one in four women return to work within 10 days of giving birth (ACOG 2018). This may be, in part, because only fourteen percent of American workers and five percent of low-wage workers are eligible for paid leave (ACOG 2018). FMLA only covers 60 percent of the workforce to allow for 12 weeks of unpaid leave (ACOG 2018). According to the Office on Women's Health (2008), only twenty percent of mothers in the U.S. meet the eligibility requirements for FMLA. The eligibility requirements for FMLA include: more than 50 employees at the business and working more than 24 hours a week for at least one full year continually so many women return to work sooner because they cannot afford the lost wages (Office on Women's Health 2008). The Institute for Women's Policy Research (2017), using data from the 2012 U.S. Department of Labor (DOL) FMLA Surveys, states that about half (50.5%) of working mothers aged 18-34 were eligible for FMLA in 2012 compared to 65.6% of mothers aged 45-54 and 59.9% of non-mothers. Graduate students who only work part-time for their university are not covered by FMLA because they usually do not work at least 24 hours a week.

ACOG (2018) states that paid leave helps reduce risk for child abuse and neglect in addition to allowing women to recover physically from childbirth, establish breastfeeding, develop a strong emotional bond with their baby, and attend all necessary

health care appointments for both mothers and babies. Allowing new mothers the optimal time to establish breastfeeding with their children would prevent 2,619 maternal deaths and 721 fetal deaths per year (ACOG 2018). The U.S. suffers from higher maternal mortality rates, particularly for Black women, than most other developed countries (Maternal Health Task Force N.D.) and is also the only industrialized country that does not have paid maternity leave. The U.S. spends more than any other nation on hospital-based maternal care, yet the maternal mortality rate keeps rising, from 12 deaths for every 100,000 live births in 1990 to 28 deaths per 100,000 live births in 2015, an increase of 136% in that timeframe (Maternal Health Task Force N.D.). In that same timeframe, the global maternal mortality rate went down by 44% (Maternal Health Task Force N.D.). Black women are dying at 3-4 times the rate of white women with 44 deaths per 100,000 live births in 2013 versus 13 deaths per 100,000 live deaths for white women in 2013 (Maternal Health Task Force N.D.). In the United States, a Black woman is 243% more likely to die from pregnancy or childbirth than a white woman (Maternal Health Task Force N.D.). ACOG (2018) also notes that only about 40 percent of postpartum women attend their postpartum checkups. I would surmise this is in part due to the mothers already being back at work and unable to take the time off.

Postpartum depression is prevalent among new mothers with one in nine being diagnosed with postpartum depression (Office on Women's Health 2018). New research suggests as many as one in ten new fathers may experience depression during their

partner's pregnancy and after a new baby enters the family (Office on Women's Health 2018). Common signs and symptoms of postpartum depression include: feeling restless or irritable; feeling sad, depressed, or crying a lot; having no energy; headaches, chest pains, heart palpitations, numbness, or hyperventilation; insomnia, being very tired, or both; not being able to eat and weight loss; overeating and weight gain; trouble focusing, remembering, or making decisions, being overly worried about the baby; not having any interest in the baby; feeling worthless and guilty; having no interest or getting no pleasure from activities like sex and socializing; thoughts of harming themselves or the baby (Office on Women's Health 2018). The Office on Women's Health, part of the U.S. Department of Health & Human Services (2018), warns that postpartum depression is a serious health issue and is not a regular or expected part of being a new mother.

There are many factors that make a woman more at risk for postpartum depression, and a few of those factors are things that nearly all graduate student mothers struggle with such as not having support from family and friends, especially if they live far away from their families and having relationship or financial problems (Office on Women's Health 2018). Many graduate student mothers report feelings of extreme alienation, isolation, lack of a support network in addition to extreme financial strain due to a lack of living wages and relationship strain (Ellis 2014). When these factors are coupled with female graduate students already reporting higher levels of stress and

distress than their male counterparts (Hodgson and Simoni 1995), this puts postpartum graduate student mothers at a higher risk for postpartum depression.

The Office on Women's Health (2018) suggests that mothers suffering from postpartum depression should rest as much as they can, not try to do everything themselves, and ask their partners, family, and friends for help, make time for themselves and their partners, and not make any major life changes. For a graduate student mother who is unable to take time off from teaching or other graduate student responsibilities, these suggestions seem impossible.

Untreated postpartum depression can have serious consequences for both mother and child, including: lack of energy, trouble focusing on needs of baby or self, moodiness, being unable to take care of baby, and increased risk for suicide (Office on Women's Health 2018). Additionally, researchers believe a mother's postpartum depression can have negative effects on her child throughout their childhood, including: delays in language development and learning problems, problems bonding between mother and child, behavioral problems, increased agitation and crying, shorter height and higher risk for obesity in preschoolers, and issues dealing with the stress of adjusting to school and other social situations (Office on Women's Health 2018). Some mothers also experience anxiety disorders after pregnancy (Office on Women's Health 2018).

In the State of Texas, 16 TAC § 91.113 (2012) states that a puppy or kitten must legally be at least eight weeks of age before it can be removed from its mother. This is so

the puppy or kitten is able to nurse until it is old enough to take in nourishment through other foods as well as so the puppy or kittle is able to bond with its mother and is properly socialized. The lack of parental leave policies in the United States forces many women back into the workforce well before their bodies have healed from the trauma of childbirth and forces many babies to be without their mothers before they are even old enough to attend daycare. Mother-child bonding, infant development, and positive maternal-child attachment are directly related to length of maternity leave (Plotka and Busch-Rossnagel 2018).

There is a small but growing body of work regarding graduate student mothers although most of it does not focus directly on pregnancy. Springer et al. (2009) note the ideal academic is "trained to be monkish in their devotion and slavish in their pursuit of knowledge" (p. 438), yet this is a contradiction to 'good mothering' and results in conflicting roles for graduate student mothers when pursuing their graduate education (Ellis 2014). Hays (1996) argues that our cultural expectations of good mothers demand mothers "expend a tremendous amount of time, energy, and money in raising their children" with their behavior guided by a "logic of unselfish nurturing" (p. *x*).

The academic model of the university was designed for single white males with no familial commitments and other groups strain to meet the ideal that is only realistically achievable by a small fraction of graduate students (Gardner 2008). The constant pressure to publish in academia coupled with the time demands placed on students by graduate

school leaves little time for much else (Ellis 4014). Only a small percentage of graduate students are able to meet the expectations of the ideal student (Gardner 2008). This antiquated academic model persists despite women being the majority of graduate students both enrolled in graduate school and earning graduate degrees. Success in graduate school depends on fitting in with the system and institution; however, the socialization process of graduate school favors young white men without children as they are considered the normative "mold" for graduate students (Gardner 2008). Because the graduate school experience is highly tailored to this group as the normative one, the experience of graduate school for anyone not meeting this mold is, in this sense, non-normative and may result in higher attrition rates (Gardner 2008). Learning to understand the departmental and university expectations of being a "good student" is an important part of the socialization into the political culture of academia (Sallee, Zare, and Lester 2009).

In 1966, only 12 percent of doctorates in the U.S. were earned by women, by 2000, women earned 49 percent of doctorates in the U.S., and in 2013, women earned 51 percent of the doctorate degrees granted in the U.S. (Mason et al. 2013), by 2018, women earned an impressive 53 percent of doctorate degrees granted in the U.S., marking the ninth consecutive year that women have earned more doctorates than men (Okahana and Zhou 2019). Of students enrolled in master's degree programs in 2018, 59.7 percent were women and women earned 58.3 percent of master's degrees and 64.8 percent of graduate

certificates awarded by U.S. institutions in 2017-2018 (Okahana and Zhou 2019). The percentages of doctorates earned by women varies greatly by field; men still earn the majority of doctorates in the STEM fields (Okahana and Zhou 2019).

The inequities and expectations of women's experiences are determined by the systemic structural relations of power within the dominant culture (Gouthro and Grace 2000). By better understanding these gendered divisions of labor, we can better understand the potential disadvantages experienced by women graduate students (especially mothers; Gouthro and Grace 2000). In having equal policies for both male and female students, the university assumes women and men are equally affected by such policies, showing the university is blind to the concerns and struggles faced by women graduate students (Gouthro and Grace 2000). Systematic racism and sexism are hidden under a shelter of efficiency, rationality, and equality (Collins 2000). Collins (2000) explains sexism and racism are ignored when certain kinds of knowledge are excluded for not being objective enough or scientific enough. Williams (2007) notes "little research examines the dual impact of racism and sexism on the black female scholar" (p. 16).

The ways in which intersecting social characteristics affect graduate school success and create differential experiences is not clear (Anaya 2011; Williams 2007). Anaya (2011) identifies the conflict between roles of graduate student, graduate assistant, and mother as primary sources of guilt for graduate student mothers because the student may

feel she is inadequate (i.e. "bad") in all of the roles. She suggests this guilt may not be experienced universally by all graduate student mothers, though, and instead may be primarily a feature of white graduate student mothers' experience. White graduate student mothers may have less experience dealing with multiple roles at home and at work when compared to mothers of color who have more experience dealing with this form of role conflict (Anaya 2011). This may also be dependent on the social class background of the graduate student mother, but the effects of race and class are not particularly well understood nor discussed (Williams 2007). There is, however, some indication that faculty members who are women of color feel especially overburdened by their dual minority status and identity taxation (Baldwin and Griffin 2014; Castro 2014; Hirshfield and Joseph 2012). Women of color are "under increased pressure to represent diversity as tokens, advocates, and role-models" in addition to "dealing with (negative) stereotypes portraying them as maternal or nurturing" (Hirshfield and Joseph 2012:220). Women faculty members are asked to and expected to devote more time to mentoring students, service to the department or university, and emotional labor than their male counterparts, subsequently slowing their research and publication output and negatively affecting their tenure and promotion cases (Baldwin and Griffin 2014; Castro 2014; Hirshfield and Joseph 2012). This extra identity taxation is particularly salient for women of color as they have the added expectation of representing diversity (Baldwin and Griffin 2014; Castro 2014; Hirshfield and Joseph 2012); while this phenomenon is not fully-explored

for women graduate students of color, one would expect that the pattern holds true for them as well.

Women are subjected to an education centered within patriarchal ideologies about women's roles in higher education and in the family (Collins 2000; Gouthro and Grace 2000). When attendance policies penalize students for missing class, women, especially mothers, are disproportionately negatively impacted (Ellis 2014). Ellis (2014) stated:

> By assuming that policies such as those centered around attendance are equal or fair because they apply to all students, universities ignore the reality that women are still in charge of the bulk of child care and care giving work in general, meaning that if a child is sick, a sitter cancels, or an elderly relative falls ill, it is likely the mother/woman who must stay home to fulfill her care giving responsibilities (P. 14).

Class times and the timing of departmental events can also disproportionately impact mothers who are often responsible for picking up children from school or the bus stop. When classes or departmental events are scheduled when children are getting out of school or in the evenings, this often inadvertently excludes those with caregiving responsibilities. Ellis (2014) stated:

> Evening classes, based on the antiquated model of the full-time nine-to-five male worker who attends graduate school in the evening, also disproportionately affect graduate student mothers, many of whom, in order to fulfill their internalized expectations of motherhood, feel as though they should be at home in the evenings helping with homework, fixing dinner, and getting children bathed and in bed (P. 14).

Having children can have a negative impact on a woman's career and progress on the tenure-track, making family planning an important topic for academic women

(Williams 2007). Many academic women have to choose whether to delay having children (and risk infertility later) or whether to sacrifice their career and success in order to have children because an academic woman's tenure clock and biological clock are often racing against one another (Mason et al. 2013; Williams 2007). An academic lifestyle assumes academics have time not interrupted by a child and this assumption is harmful to a mother's career (Hensel 1990). Academic mothers report greater caregiving responsibilities than academic fathers (Kmec, Foo, and Wharton 2014). Women who have babies within five years of obtaining their PhD are 30 percent less likely than women without babies to obtain a tenure track position (Mason and Goulden 2004). Mothers are stereotyped to be less effective at their jobs and less committed to their jobs because of perceived demanding family responsibilities (Wallace 2008); however, Kmec et al. (2014) found that academic mothers had higher levels of pro-work behaviors such as work engagement and perceptions of their work intensity. Academic mothers are capable of full participation and productivity at work, perhaps because their experiences with multitasking, prioritizing, creativity, and efficiency as a mother also transfers over to juggling the various roles required in the academy, such as mentoring, service, teaching, and research (Kmec et al. 2014).

Mason et al. (2013) found that many of academia's most promising young scholars are rejecting careers at research universities after graduation because they view the lack of family-friendly accommodations unacceptable and unappealing. Many of the graduate

students surveyed by Mason et al. (2013) stated they had already decided against an academic career after seeing the challenges of balancing family and career obligations as a professor. In their 2006-2007 survey of 8,000 doctoral students across the University of California campuses, 84 percent of women and 74 percent of men stated that having a family friendly workplace was important to them, yet, over 50 percent of men and more than 70 percent of the women surveyed did not consider faculty careers in research universities to be compatible with family life (Mason et al. 2013). One female graduate student told the researchers, "I could not have come to graduate school more motivated to be a research-oriented professor. Now I feel that can only be a career possibility if I am willing to sacrifice having children (Mason et al. 2013:10-11). Mary Ann Mason (Masen et al. 2013) put off having children as a graduate student out of fear she would not be taken seriously and that professors and future employers would not approve, the same fears cited by many of Ellis' (2014) participants about why they engaged in hypervisibility in their departments.

Williams (2002) found women professors and staff members perceived that they were viewed as less competent by their colleagues after they had children, despite feeling that they were valued team members before they became mothers. A study by Ridgeway and Correll (2004) revealed even highly qualified women who were previously considered competent and committed were suddenly seen as less committed to their careers and less competent once their status as mothers was known. The researchers

believe working mothers are perceived to be less committed to work than non-mothers because they are presumably torn between work and family and believed to put less effort into work due to their family commitments (Ridgeway and Correll 2004).

Motherhood is a status characteristic "that is culturally perceived to be directly, but negatively relevant to workplace performance in that the normative obligations of mothers are thought to be inconsistent with the obligations of a committed, ideal worker" (Ridgeway and Correll 2004:697). Where the ideal worker is expected to meet intensive time commitments of their job, the ideal mother is expected to display this type of commitment to their children. These two cultural beliefs are incompatible since both would require sacrifice the time of the other (Hays 1996; Ridgeway and Correll 2004).

Intensive motherhood is a cultural belief in the United States that posits that a good mother will give her child(ren) all of her emotional time and energy without constraint (Hays 1996). In order to meet cultural expectations of what it means to be a good mother, a good mother is unable to give priority to workplace demands, therefore, putting forth less effort and less devotion to a successful career (Correll, Benard, and Paik 2007). Qualitative studies have shown that mothers feel that they must fully devote themselves to their children and those who are unable to do so experience guilt and shame because of their "inability to live up to either their own or societal expectations for high maternal investment in their children" (Liss, Schiffrin, and Rizzo 2013:3). The practice of and

belief on intensive mothering is associated with negative mental health outcomes such as higher rates of depression and stress (Rizzo, Schiffrin, and Liss 2013).

Ideal graduate students are not exempt from the cultural expectations and demands of the ideal worker (Ellis 2014). Graduate students are expected to be singularly devoted to the rigorous institution of graduate school without limit. The ideal graduate student must not only devote significant amounts of time to their graduate school work during the week, they must also be able to extend their work into nights and weekends; and if necessary, respond to the demands of the workplace as soon as they arise regardless of other plans or commitments (Ellis 2014; Ridgeway and Correll 2004). Graduate student mothers become caught between the cultural paradox of being the ideal graduate student and the ideal mother and often find that both motherhood and graduate school are greedy institutions that expect an unyielding commitment of time, energy, and resources and are incompatible for any semblance of work-life balance (Ellis 2014).

Employment outside the home is not justification to be less than the ideal, dedicated, nurturing, and selfless mother that society requires of us (Ellis 2014). Women working outside of the home are seen as *detrimental* to the family and an inherently selfish act, unlike fathers, whose work is seen as *benefitting* the family; women who work outside the home must prove that they can be both a good mother and a good employee (Ellis 2014). For mothers in graduate school, the view that working outside the home is selfish and detrimental to the family is compounded by many people seeing graduate

school and higher education as a privilege or hobby, and a superfluous choice that results in suffering at the expense of the children (Ellis 2014). Crippling student loans coupled with a lack of living wages for graduate student mothers further serves to label them as selfish and uncaring mothers and alienates them from their supposed support networks (Ellis 2014). Alienation and isolation of graduate student mothers, as well as constant feelings of guilt, are the result of harmful internalizations of implicit and explicit criticisms over not meeting the cultural expectations of ideal motherhood and contributes to attrition rates for graduate student mothers being higher than almost any other group of students (Gardner 2008; Lynch 2008).

Mothers experience social disadvantages when trying to meet the expectations of graduate school that their non-mother peers and peers who are fathers do not experience (Ellis 2014). Mothers are seen as lacking dedication to their jobs and as less competent than non-mothers (Correll et al. 2007; Ridgeway and Correll 2004). The social perceptions of mothers' competence and commitment to their jobs starkly contrasts with the way fathers are viewed. Cultural expectations of ideal fathers do not conflict with expectations of ideal workers the same way that the expectations for mothers do (Correll et al. 2007). Fatherhood is instead an extension of the "men as breadwinners" model where men bear the financial responsibility of providing for their families (Lynch 2008). Since work is necessary for fulfilling this obligation, fatherhood likely confers social benefits rather than disadvantages. Fathers are paid more than non-fathers, at statistically

higher amounts, awarded more flexibility in their schedules, and, unlike non-parents or mothers, are generally seen as more committed to work (Correll et al. 2007). As one participant stated (Ellis 2014):

> Rules are different when you're the man and when you're the woman and if men break the rules, nobody cares…I think 'how come it's okay for men to spend a lot of time working, almost admirable?' Poor man, he's working so hard to provide for his family but yet if a woman does that, she's not a good mom, she's not a good wife, she's not a good woman. She is resisting the gender role expectations so she's bad. (P. 53)

Women who take longer to finish graduate school are much more likely to have had their progress slowed by family issues than women who finish graduate school early (Maher, Ford, and Thompson 2004). The responsibilities of child care and/or marital tensions/family obstacles are most cited as constraints for these women. These are different from the constraints cited by early-finishing women that tend to reflect self-doubt about abilities, funding and finances, or not having mentors available to them (Maher et al. 2004). Marital tension can increase due to time conflicts related to graduate school building resentment between spouses (Ellis 2014). This, coupled with motherhood, likely increases the risk that graduate student mothers will take longer to finish their graduate degrees than non-mothers, if they finish at all. One of Amirirad's (2016) participants explained, "I could have finished sooner, but parenting my child came first, putting a roof over her head" (p. 60). Two of Amirirad's (2016) participants did not complete their doctoral programs due to the struggles they faced as single mothers.

Women are more susceptible to role strain than men because they perform multiple roles that are often conflicting. Role strain increases as family responsibility becomes broader and is dependent upon the number of children and the ages of the children (Grenier and Burke 2008). Women may feel both physically and emotionally drained from struggling with the strain of conflicting demands of their career and home lives (Hocschild and Machung [1989] 2012; Lynch 2008). The demands of motherhood and the cultural expectations of "good" mothers are such that mothers are more responsible for child care (including their emotional well-being) and household management, even when they work outside the home (Hays 1996; Hochschild and Machung [1989] 2012; Lynch 2008).

Institutional policies of graduate school may exacerbate strain between roles for graduate student mothers as they are forced to choose between the institution of graduate school and their family (Williams 2007). Williams (2007) argues that depictions found in institutional resources (graduate school survival guides, orientation materials, and internet resources) emphasize men as ideal graduate students. This discourse reflects the policies and practices of the institution, which is exclusionary to students that do not fit this mold. For these reasons, graduate student mothers experience a stigmatized identity and may feel excluded or incompetent. Williams (2007) argues that the system needs to change and that graduate student mothers and families should be promoted by graduate school, rather than excluded.

Lynch (2008) and Ellis (2014) considered the socio-cultural factors involved with surviving the conflicting expectations of their identities as graduate students and mothers as well as any support graduate student mothers received for their student/mother identities. Participants avoided cultural conflict and tried to guarantee success in both roles by using strategies including 'maternal invisibility' to downplay their mothering role while in the academic world and 'academic invisibility' to downplay their student role when outside of the academy (Ellis 2014; Lynch 2008). Participants reported fear they would be stigmatized by their identity as mothers and diminish perceptions they are "serious students" and therefore, they avoided discussing their family life at school and did not bring children or spouses to department gatherings, even the family friendly ones (Ellis 2014; Lynch 2008). Other participants described feeling that they must be hypervisible in their departments to ensure they were seen as serious students so that if their secret status as mothers was ever discovered their motherhood status could not be held against them if they have "put in their time" (Ellis 2014; Lynch 2008:597). Lynch (2008) warns "The academe...cannot respond effectively to the needs of student mothers' blended identities when those identities are kept hidden" (p. 597).

Faculty support and other networks of support are imperative factors of success and improved retention rates and most participants reported a lack of support that led to participants feeling alienated and isolated from both faculty members and other students due to their status as mothers, with the exception of the few programs that had peer

matching, mentoring, or student parent support groups (Ellis 2014; Lynch 2008). The faculty-student mentoring relationship is an important part of the graduate school experience and professional development of the student; however, some professors are cautious about committing their limited time to students they fear will be unable to meet the stringent requirements of a successful graduate student (Sallee, Zare, and Lester 2009). Students must advocate for themselves with faculty mentors and do so in a way that does not jeopardize the support they need to receive for academic advancement, leading to many students hiding their pregnancies or family obligations (Sallee et al. 2009).

Lynch (2008) demonstrated the importance of support networks to student success. The student mothers reported, with few exceptions, that they felt a sense of disconnection and isolation from faculty and from other students (Lynch 2008). Of the 30 participants in Lynch's (2008), study 28 reported they wanted to see more tenured faculty members that actually had children as well as faculty that were more sensitive to the competing demands of graduate school and of motherhood. Students not receiving support are struggling "between [the] idealized vision of motherhood and the idealized vision of being a graduate student" (Pement 2013:30). The disconnect between faculty and student needs means graduate student mothers may be less likely to finish their degree since retention rates are affected by the amount of faculty support available to students (Lynch 2008).

The two primary concerns of graduate student mothers in the studies mentioned above were child care, which is crucial for a graduate student mother to be able to perform her duties as a student, and financial problems related to their return to school such as a lack of adequate funding.

Lester and Sallee (2009) found life circumstances for graduate students such as taking care of sick family members, having a child, and taking care of their own health problems to be incompatible with graduate school due to the way departments and faculty advisors handled individual student accommodations in terms of teaching and research assistantships, progress to degree, and extensions on classwork. Accommodations differed amongst students with some receiving none at all (Lester and Sallee 2009). Lester and Sallee (2009) argue "we all need our institutions of higher education to become aware, accommodating, proactive, and responsible for establishing and supporting family-friendly policies" (p. *viii*).

Little research has been done to document best practices for family-friendly policies and most of the current policies and practices are being done without proof of their efficacy (Lester and Sallee 2009). It is important to create family-friendly policies, but perhaps more importantly, "creating policies alone does not change the culture toward acceptance of career flexibility" (Frasch, Stacy, Mason, Page-Medrich, and Goulden 2009:88).

Sallee et al. (2009) discuss the importance of making graduate school family friendly, arguing that without accommodations, "many students struggle to progress through their degree program" (p. 141). Graduate students often rely only on their stipends from research assistant or teaching assistant positions, making them financially vulnerable due to a lack of financial resources and often unable to take unpaid leave, often the only accommodation offered (Sallee et al. 2009). Graduate students with paid positions at the university are not considered employees and are denied access to a range of policies and programs available to faculty and staff (Sallee et al. 2009). Students at private institutions are regulated by the National Labor Relations Act (NLRA), which insists that, despite being an invaluable source of cheap labor, the working relationship a graduate student has with the university fulfills educational needs, not economic needs (Sallee et al. 2009).

The right to unionize for graduate students varies among public institutions but graduate students at private universities are forbidden from unionizing according to federal legislation, leaving policies that affect graduate students to the discretion of the university (Sallee et al. 2009). In order for all student mothers to succeed in graduate school, there are multiple levels of supports and safety nets that need to be put into place.

CHAPTER III

METHODOLOGY

PURPOSE OF STUDY

The intent of this study is to explore the lived experiences of women who experienced pregnancy and gave birth while enrolled in graduate school. The goals are to better understand what student mothers need to be successful in graduate school, and to gain knowledge of how their experience in graduate school is shaped by university and department policies surrounding pregnancy and birth related absences. Three main research questions guided this study:

1. In what ways was the student facilitated or hindered by the formal and/or informal policies (or the lack thereof) in place to guide decisions regarding pregnancy related absences and maternity leave?
2. What sort of support networks and institutional supports helped students be successful or how did a lack of support negatively impact their success?
3. How can universities and graduate departments best support pregnant and mothering graduate students?

DESIGN

I utilized semi-structured, in-depth qualitative interviews to acquire data from my participants. In-depth interviews inform researchers of the perceptions the participants hold of their social world and encourages participants to contemplate their experiences or

principles (Reinharz 1992; Sprague 2005). I used previous literature that examined the lived experiences of women who experienced pregnancy during graduate school and graduate student mothers to design my interview guide, as well as my own previous research on graduate student mothers (Ellis 2014; Ellis and Gullion 2015). I also added some of my own questions to this guide (See Appendix A for Interview Tool). To ensure that my questions did not overlap and there were no unnecessary questions, I pretested the tool with mock interviews. The mock interviews helped to ensure that questions were neutral and non-judgmental (Charmaz [2006] 2010), make certain my questions were not "closed-ended" or "multiple questions as a single prompt," and helped assess the quality of my questions (Saldaña 2011:36).

While in each interview, answers were sought to all the questions in the interview guide, due to the conversational or interactive give and take of qualitative interviewing, extra questions were asked in some of the interviews. Charmaz ([2006] 2010) argues that an intensive or in-depth qualitative interview is merely a directed conversation that allows for a thorough investigation of the participant's understanding of their experiences. Asking clarifying questions and "going beneath the surface of the described experience" (Charmaz [2006] 2010:26) is part of the researcher's responsibility to their participants. The researcher should help them explore and articulate their intentions and meanings. Ellis (2004) sees interactive or conversational interviewing as a more self-conscious approach to collaboration with research participants and views it as an

exceptionally valuable tactic when the subject matter is something which both the interviewer and the participant have had personal experience.

When discussing personal or emotional topics with participants, building trust is essential, and the reciprocity of interactive interviewing helps stimulate stories and lessen the power differentials and hierarchy in the interview process (Ellis 2004). Ellis (2004) details this building of intimacy and trust between researcher and participant when she states:

> [O]ne person's disclosures and self-probing invite another's disclosures and self-probing; where an increasingly intimate and trusting context makes it possible to reveal more of ourselves and to probe deeper into another's feelings and thoughts; where listening to and asking questions about another's plight lead to greater understanding of one's own; and where the examination and comparison of experience offer new insight into both lives. (P. 66)

Utilizing a semi-structured interview allowed me to rearrange my open-ended questions as needed to follow the flow of conversation rather than hastily changing the subject in order to move on to the next question. Qualitative research also allows for flexibility and the ability to pursue leads or hunches that participants mentioned by asking more probing questions (Charmaz [2006] 2010). Because of this flexibility, I was able to prompt participants by asking follow-up questions to their statements such as "Can you please tell me more about that?" and follow emergent leads and explore new directions that were previously not a part of the research design (Charmaz [2006] 2010). In-depth qualitative semi-structured interviews allowed for the emergence of rich contextual data and common themes in my interviews with graduate students who had

experienced pregnancy during graduate school. “Rich data get beneath the surface of social and subjective life…are detailed, focused and full. They reveal participants’ views, feelings, intentions, and actions as well as the contexts and structures of their lives” (Charmaz [2006] 2010:13-14).

Qualitative researchers recognize how our own experiences, upbringings, and social institutions that have been a part of our lives mold us and shape us into the person we are (Gullion 2016; Gullion 2018). For qualitative researchers, the idea that we are “scientific observers who dismiss scrutiny of our values by claiming scientific neutrality and authority” (Charmaz [2006] 2010:14) is absurd and something that we know to be false. As Denzin and Lincoln (2011) state:

> The interpretive bricoleur understands that research is an interactive process shaped by one’s personal history, biography, gender, social class, race, and ethnicity and those of the people in the setting. The political bricoleur knows that science is power, for all research findings have political implications. There is no value-free science. (P. 5)

My own beliefs about scientific neutrality, values, feminism, reflexivity, and my desire to advocate for change, led me towards a critical feminist standpoint methodology paired with a social constructionist approach. Because of my desire for advocacy and making changes for marginalized groups, I also included an advocacy or action-based approach.

I approach research with a critical, feminist lens, and a social constructionism philosophical orientation. A critical feminist research approach considers not only gender

and intersectionality, but also "ontology (the nature of knowledge itself), epistemology (what counts as knowledge and how that knowledge is represented), and methodology (the theories and tools of doing research)…and suggests a range of ways in which feminist researchers believe in changing the world" (Leavy and Harris 2019:5). Critical feminist research challenges the status quo by being critical of gender-based inequities, but does not imply "criticism" (Leavy and Harris 2019:5). Feminist research envisions critical feminist scholarship as motivating and enacting positive changes in society that lead to a better world (Leavy and Harris 2019:v). Feminist sociological theory in particular examines gender and how it intersects with power in terms of sociocultural institutions, rules, and customs (Leavy and Harris 2019).

Social constructionists assume that the researcher and participant co-create knowledge and that there are multiple realities (Denzin and Lincoln 2011; Gullion 2015; Gullion 2016; Gullion 2018). A social constructivist approach encourages scholars to question their own embeddedness in academic culture and asks them to consider their own roles in institutions that decide what knowledge is valuable and worth being produced and distributed (Sprague 2005). Constructivists value analyzing the connections between social domination and the organization and legitimacy of knowledge, and seek to deconstruct the ideas, practices, methods, and theories in order to expose multifaceted and conflicting meanings rooted in cultural values (Sprague 2005).

Levin and Greenwood (2011) argue that sociologists claim to be experts in society and culture but they choose to estrange themselves from "local organizational life" in their quest to be removed and objective observers rather than participants in their institutions and society (p.32). Levin and Greenwood (2011) call for a civil social science to be at the center of a contemporary university, whereby action research is employed to bridge the gap and radically transform relationships between the university and the community, state, and larger society. While this idea is lovely and I would love to see universities and action researchers be more active in their communities in order to use their knowledge to create positive social change for oppressed and marginalized populations, I argue that the university should also critically examine its own systems of power and oppression and seek to rectify them (Ellis 2014).

Charmaz ([2006] 2010) argues it is important to discuss status and power differentials that may impact the research process; thus, researchers need to pay attention to how their participants perceive them and how present and past identities may shape the interaction between researcher and participant. All the participants in this study were female so no gender differences came into play, but Charmaz ([2006] 2010) notes that differences in age, class, race, and ethnicity may have some bearing on how an interview progresses.

PROCEDURES

I obtained permission to conduct this study from the Institutional Review Board (IRB) at Texas Woman's University (see Appendix B). After obtaining permission from the IRB to conduct the study, I began recruiting participants by posting a recruitment flyer on social media (see Appendix C). The flyer was posted on my personal Facebook account where many friends shared it, as well as in several groups geared towards mothers in academia. I became so inundated with requests for interviews within hours of the posting that there was no need to try to use any other method of recruitment. Each potential participant contacted me through an email account set up specifically for this study in order to set up an interview.

Upon receiving the initial contact email from a potential participant, I emailed each potential participant an initial questionnaire in order to ask some basic demographic information and preferred interview times and dates. Once potential participants returned these initial questionnaires, I contacted them to set up interviews. Many potential participants who initially reached out did not return the initial questionnaire and were not included in the study. Some potential participants were excluded after filling out the initial questionnaire because they did not attend graduate school in the United States. There were also 20 potential participants who filled out the initial questionnaire but did not return my emails to set up an interview. I tried to reach out to these potential

participants three times each to set up an interview and if I did not receive a response after the third email, I assumed they were no longer interested in participating and I ceased contacting them.

During the interview, I asked basic demographic questions to ascertain the participant's age, income, marital status, current education level and education level at the time of pregnancy, as well as the number and ages of their children. I used follow-up questions to prompt participants to discuss their experiences with pregnancy and the postpartum period in graduate school. I asked participants about their attendance, the formal and informal policies at their university regarding pregnancy related absences and maternity leave, how they were feeling about themselves during their pregnancies, their health during their pregnancies and postpartum health, and about breast pumping or lactation facilities on campus. Lastly, I asked participants about the support they had received from their departments, what their department or university could have done to better support them, and if there were any policies that helped or hindered their success as graduate students mothers.

Altogether, I conducted 50 interviews. Of the 50 interviews, 48 were conducted on the telephone and the remaining two interviews were conducted in person. The face-to-face interviews were conducted in a relaxed, non-intimidating manner and took place in locations of the participant's choosing (such as their offices, homes, or local coffee shops) and took place at each participant's convenience.

When a telephone interview was scheduled, a consent form was sent to the participant through email and received back before the interview began. If an in-person interview was requested, each participant was asked to read and then sign a consent form in which confidentiality and the purpose of the study were explained. In both cases, I reviewed the consent form with participants and explained how I would work to ensure their confidentiality by removing identifying information before using quotes from their interviews in my research. I informed participants they could stop, reschedule, or take a break during the interview at any time during the interview process. I instructed participants they could ask questions at any point during the interview process. Once we reviewed the consent form, I asked participants if they had any questions and if they agreed to have their interview audio recorded so I could transcribe and further review the interview at a later date. Each participant permitted me to audio record the interview. Once the audio recording began, I asked participants again to verify that they had given me permission to record the interview.

Interviews were expected to take between one and three hours, depending on the degree of openness with which the participant was willing to speak with me as well as the number of pregnancies the participant had experienced in graduate school. Participants who experienced more than one pregnancy in graduate school had longer interviews due to the need to answer some questions for each individual pregnancy. Actual interviews

ranged anywhere from 28 minutes to around three hours, but most interviews lasted around two hours for a total of 4,368 minutes of audio recording.

After the completion of each interview, each participant was asked if they had anything else they would like to add that they felt as though I had not covered fully and they were given the opportunity to ask more questions. Interviews took place during December 2017 through February 2018.

PARTICIPANTS

The respondents ranged in age from 26-47 with a mean age of 33.82 years and a mode of 32 years.

Table 1. Participant Ages

Age of Participant	**Number of Participants**
26-29	6
30-34	26
35-39	16
40-44	1
45-47	1

The children of participants ranged in age from 7 weeks to 14 years. The current total number of children for the 50 participants is 85. Of those, 19 participants (38%) had only 1 child, 27 participants had 2 children, and 4 participants had 3 children.

Table 2. Total Number of Children at Time of Interview

Total Number of Children at Time of Interview:	**Number of Participants:**
1	19 (38%)
2	27 (54%)
3	4 (8%)

The participants had roughly 75 pregnancies during graduate school between them although some of these ended in miscarriage or abortion (I do not have exact numbers for miscarriages or abortions since it was not a question I specifically asked). Of those, 30 participants (60%) had 1 pregnancy during graduate school, 17 participants (34%) had 2 pregnancies during graduate school, 1 participant (2%) had 3 pregnancies, and 2 participants (4%) had 4 pregnancies during graduate school. The baby of one participant was born directly after she graduated so I do not have postpartum data for her.

Table 3. Number of Pregnancies in Graduate School

Number of Pregnancies in Graduate School:	**Number of Participants:**
1	30 (60%)
2	17 (34%)
3	1 (2%)
4	2 (4%)

Of the 50 participants, 46 (92%) are currently married and 45 (90%) were married at the time of their pregnancy during graduate school. There is one participant (2%) who is currently divorced but no participants were divorced at the time of their pregnancy. There is one participant (2%) who is currently separated but no participants were separated at the time of their pregnancy. There are two participants (4%) that are currently partnered but unmarried while five participants (10%) were partnered but unmarried during their pregnancies. It is important to note that one participant was partnered but unmarried during their pregnancy due to the Defense of Marriage Act (DOMA) but as soon as DOMA was repealed and same-sex marriages became legal, she married her same-sex partner.

Table 4. Marital Status During Pregnancy and at Time of Interview

Marital Status:	**Number of Participants During Pregnancy:**	**Number of Participants at Time of Interview:**
Married	46 (92%)	45 (90%)
Divorced/Separated	0 (0%)	2 (4%)
Partnered but unmarried	5 (10%)	2 (4%)

Of the 50 participants, 41 (82%) self-identified as straight or heterosexual, three (6%) identified as queer, five (10%) identified as bisexual, and one (2%) identified as pansexual. Only one participant disclosed currently being in a same-sex marriage.

Table 5. Sexual Orientation of Participants

Sexual Orientation:	**Number of Participants:**
Straight or Heterosexual	41 (82%)
Queer	3 (6%)
Bisexual	5 (10%)
Pansexual	1 (2%)

No exclusions were made on the basis of ethnicity, socioeconomic status, sexuality or sexual orientation, religious affiliation, or any other means of exclusion. I

made a conscious effort to recruit women of color and from a wide range of ethnic and racial backgrounds for this project because most of the existing literature focuses on the experiences of white women. While I did have a lot of white participants, I also had a fairly good representation of women of color. Of the 50 participants, 28 (56%) identified as white or Caucasian. There were four participants (8%) who identified as White-Jewish and five participants (10%) identified as African-American. There were four participants (8%) who identified as Pan-Asian: one participant identified as Asian-American, one identified as Southeast Asian-American, one identified as American-Chinese, and one identified as Asian Indian American. There were six participants (12%) who identified as Biracial with two identifying as Asian/White and one participant each in the following categories: Eastern European Indian/White, Latina/Hispanic, South Indian/White, Native American/White. There were also three participants (6%) that were white immigrants, one Polish, one Turkish, and one British.

Table 6. Race/Ethnicity of Participants

Race/Ethnicity of Participants:	Number of Participants:
White/Caucasian	28 (56%)
White-Jewish	4 (8%)
African-American	5 (10%)
Pan-Asian	4 (8%)
Bi-Racial	6 (12%)
White Immigrant	3 (6%)

Of the 50 participants, 24 (48%) have now obtained their doctorate, eight are PhD Candidates, eight (16%) are now A.B.D (All But Dissertation), nine (18%) are current PhD students, and one (2%) has a terminal master's degree.

Table 7. Degree Status of Participant at Time of Interview

Degree Status at Time of Interview	Number of Participants
Terminal Master's Degree	1
PhD Students	9
A.B.D.	8
PhD Candidate	8
PhD	24

During their pregnancies, their educational status was as follows (note: some had multiple pregnancies during graduate school so they are accounted for more than once): nine were either just entering their program or in their first year, seven were in their second year, three were in their third year, one was in their fourth year, five were finishing up their coursework, five were working on their exams, two were working on their thesis, one was working on their prospectus, one was a PhD Candidate, and twenty-seven were A.B.D.

Table 8. Educational Status During Pregnancy

Educational Status During Pregnancy	**Number of Participants**
First Year	9
Second Year	7
Third Year	3
Fourth Year	1
Fifth Year/Finishing Coursework	5
Exams	5
Thesis	2
Prospectus	1
A.B.D.	27
PhD Candidate	1

Participants were also asked about their current socioeconomic status. Two participants (4%) stated they considered themselves to be lower class, three (6%) identified as lower-middle, 24 (48%) identified as middle class, one (2%) as middle-to-upper, sixteen (32%) as upper-middle, two (4%) as middle-upper, and two (4%) as upper.

Table 9. Socioeconomic Status at Time of Interview

Socioeconomic Status at Time of Interview	**Number of Participants**
Lower Class	2 (4%)
Lower-Middle Class	3 (6%)
Middle Class	24 (48%)
Upper-Middle Class	16 (32%)
Middle-to-Upper Class	1 (2%)
Middle-Upper Class	2 (4%)
Upper Class	2 (4%)

Of the pregnancies that occurred during graduate school, 44 were planned, 6 were unplanned, 5 were not being tried for but knew it was a possibility (several termed this "playing with fire"), and 3 pregnancies were being tried for but they got pregnant much faster than they expected.

Table 10. Pregnancy Planning

Status of Pregnancy Planning	Number of Participants
Planned	44 (88%)
Unplanned	6 (12%)
Playing with Fire	5 (10%)
Trying but Faster than Expected	3 (6%)

The 50 women who participated in this study come from 39 different universities in the United States. There were 33 participants (66%) who attended or are attending Public R1 universities, 3 (6%) attended Public R2 universities, 1 (2%) attended a Public R3 university, 10 (20%) attended Private R1 universities, 1 (2%) attended a Private R3 university, 1 (2%) attended a private medical school, and 1 (2%) attended an Ivy League school. To protect participant privacy, I have chosen to keep the names of the universities private but many of our nation's most prestigious universities are included in this study. Out of the 39 universities represented, only eight (20.5%) were unionized for graduate students. Participants came from a wide variety of educational programs including history; agriculture; chemistry; English; philosophy; mathematics; neuroscience; clinical, developmental, educational, and school psychology; education; bio-engineering; environmental engineering and environmental health; sociology; criminology; political

science; communications; biology; immunology; business; ethnic studies; foreign language studies; and archaeology.

Table 11. University Status and Ranking

University Status and Ranking	Number of Participants
Public Research 1	33 (66%)
Public Research 2	3 (6%)
Public Research 3	1 (2%)
Private Research 1	10 (20%)
Private Research 3	1 (2%)
Private Medical School	1 (2%)
Private Ivy League	1 (2%)

Because of my own status as a graduate student who experienced two pregnancies during graduate school, I am an insider with this group and I shared some of my own experiences during interviews as a means of establishing rapport with participants. Please see Appendix D for Researcher Reflexivity and personal stance. I should also note that I knew a few of the participants prior to this project.

To protect confidentiality, I collected all data personally, organized and analyzed the data, and wrote the results. Respondents are not identified in the written report, even when direct quotes are used. Participants chose their own code names for interviews and

there is no key to identify respondents as they are now known only by their code names. Audio recordings of interviews were deleted as soon as transcripts were written. All transcripts and consent forms are de-identified and stored in a locked file cabinet, for which only I have a key, in my locked home office.

ANALYSIS

By carefully scrutinizing the meanings people bring to the everyday and difficult moments in their lives, qualitative research seeks to make hidden social worlds visible and to change the world through interpretations that attempt to understand or decipher that phenomena (Denzin and Lincoln 2011).

Charmaz ([2006]2010) states, "Coding means naming segments of data with a label that simultaneously categorizes, summarizes, and accounts for each piece of data. Coding is the first step in moving beyond concrete statements in the data to making analytic interpretations" (p. 43). I mined the data from my 50 participants for emergent themes or links between the interviews (Charmaz [2006] 2010) and findings were analyzed for shared themes or concerns across participants. Saldaña (2016) discusses eclectic coding as a "select and compatible combination of two or more first cycle coding methods" (p. 213). Because I used a variety of coding methods in my first round of coding, eclectic coding would best describe the methods used. Each of the 50 transcripts were coded using attribute coding (Saldaña 2016) to gather essential demographic information about the participants. I also simultaneously coded the data using descriptive

coding (Saldaña 2016) to quickly sum up the topics discussed with the participants. Saldaña (2016) notes that descriptive coding uses a short word (usually a noun) to summarize the *topic* of the data but these are not abbreviations of the *content;* those will come about in the second round of coding. In the first round of coding, I used hashtags to code the data so that I could find them again easily. The hashtags were always related to the question asked. For example, in the first round of coding, I used the hashtag #planned to code the data from asking the question, "Was your pregnancy planned or unplanned?" When I recoded the data later on with a second round of coding, the responses were separated out into categories as I will discuss in a moment.

Once finished with the initial round of coding, I began a second cycle of coding "to develop a sense of categorical, thematic, conceptual, and/or theoretical organization from your array of first cycle codes" (Saldaña 2016:234). I used focused coding to combine and refine larger fragments of data to decipher "which initial codes make the most analytic sense to categorize the data incisively and completely" (Charmaz [2006] 2010:57; Charmaz 2014:138).

Once I completed the focused coding, I decided to use versus coding to identify direct conflict between my participants (graduate student mothers) and those that they often found themselves in an asymmetrical power imbalance with (Saldaña 2016:137). Saldaña (2016) notes that "Versus Coding is appropriate for policy studies, gender studies, and for qualitative data sets that suggest strong conflicts, microaggressions, or

competing goals" (p. 137). In critical research, the researcher may "take sides" in order to emphasize and illuminate patterns of injustice (Saldaña 2016). Researchers are urged to consider "who or what is being discredited at the expense of someone or something else maintaining authority" (Saldaña 2016:139).

After completing the versus coding, I performed axial coding as the fourth and final round of coding in order to locate major categories and subcategories. Axial coding helped me to better assess how those categories and subcategories are related and any initial categories and concepts that were able to be grouped together were identified (Charmaz [2006] 2010; Charmaz 2014; Saldaña 2016). Axial coding is also helpful for refining and reorganizing the codes to select the dominant and most representative codes while deleting redundant codes and combining similarly coded data (Boeije 2010; Saldaña 2016).

The process of coding the data allowed me to pinpoint the shared themes and concerns among graduate student mothers while also improving conceptualization of theoretical perspectives and identification of areas of future research.

CONCLUSION

In summary, this qualitative study of 50 graduate student mothers explored issues related to their unique challenges in graduate schools such as a lack of clear policies at their institutions, lack of maternity leave, fears of losing insurance if they took leave, and struggles producing high quality work on very little sleep. There were 50 graduate

student mothers that participated in in-depth interviews regarding their perceptions and experiences in graduate school during and after their pregnancies. The identification of major and minor emergent themes was accomplished through multiple rounds of coding. I will discuss my findings in the next chapter.

CHAPTER IV

RESULTS AND DISCUSSION

In this chapter, I report findings from the interviews and draw conclusions about the women's experiences, utilizing their own words. When half or more of the respondents' answers echoed one another, the responses were identified as a primary or major theme. If less than half of their responses were congruent, they were identified as a secondary or minor theme.

RESEARCH QUESTION 1: FORMAL AND/OR INFORMAL POLICIES

The first research question examines how the formal or informal policies regarding maternity leave or pregnancy related absences either helped or hindered student mothers as they pursued their graduate degrees. Formal policies are those that are practiced university-wide, apply to everyone, and are in writing for students to consult. Informal policies are not written down, do not apply to everyone, and are not university-wide. Fortunately, most of the participants had relatively healthy pregnancies and did not have to miss much class time as either a student or the instructor due to pregnancy related doctor visits or complications.

Pregnancy Related Absences

The flexibility of their schedules in graduate school allowed the participants to schedule their regular doctor appointments around their classes. While some participants did miss classes, most stated that it was within the allowed absences in the syllabus or

that their instructors did not react negatively. Only a few participants had issues with their faculty members for missing classes. A phenomenon that came up for several participants is what I have termed "Academic Pregnancy Planning" where participants actively tried to plan their pregnancies at times that would be the most convenient for their academic schedule, such as during the summer or during their dissertation hours.

A few participants had to step out of class due to morning sickness but they did not miss the entire class. Sophia stated "I would have to leave class sometimes to go throw up in the bathroom. I remember thinking to myself, God, I really feel like I'm this sorority girl leaving in the morning because I'm hungover." Jean had to run downstairs in the middle of class to throw up because there were not bathrooms on every floor of the building.

Quite a few participants missed classes but did not face any negative consequences. Julia stated that she missed a few classes but "not enough to affect my grade…it was all within what was allowed in the syllabus" due to morning sickness and once for a hard fall outside. Jane missed a few classes due to severe rib and back pain that she found unbearable, but her professors were supportive. Patty also missed a few classes that she was a teaching assistant for but said that the professor was "another mom, so she was always very kind about everything pregnancy related." When she was 37 weeks pregnant, Maddie was diagnosed with preeclampsia, admitted to the hospital, put on bedrest, and had to cancel observations for the student teachers she was supervising.

Maddie initially attempted to do Skype sessions from the hospital before realizing that she needed to focus on herself and her baby and giving herself "permission for abut 72 hours…because my body was in crisis." Maddie was thrilled to find that her students that she was supposed to be supervising and her own supervisor were "amazingly supportive" and other graduate students offered to do her observations for her or teach her classes for her. Patricia had to cancel a few clients but stated that her department chair, who is also a mom, was very supportive, as were her clients, who were also all moms.

Helen and Ann experienced some pushback from their advisors for missing class. Helen continued to work on a project with some members of her cohort with one member agreeing to collect Helen's samples and the group working out terms of credit and authorship, but her advisor gave her a lot of "flak and pushback and difficulty [and] was generally very antagonistic about the project." Ann needed to work from home due to "major bleeding in the second trimester and some pretty severe abdominal stuff [that made it] really hard for me to sit in a chair. It was excruciating." Ann took four courses each semester of her pregnancy and she found that her male professors seemed to be more understanding of her issues and "went kind of above and beyond" to her help her, but her female mentor gave her "a lot of flak for not physically being in her class." Ann's biggest frustration was that her mentor was "very vocal about being supportive of females in academia and [of] moms" and claiming to be an advocate when that just

"didn't ring true" based on her lack of understanding of Ann's medical issues related to her pregnancy.

Some participants noted they felt like they had to go to classes, even if they were not feeling well. Mary stated she "had to perform in order for people to take me seriously and in a way that this pregnancy was not going to be a barrier to my education. I never complained or used my pregnancy as an excuse for anything." Daisy "made it a point to show up pregnant [because] I'm not going to let this hinder my life in any way." River noted that she specifically did not sign up for classes in that quarter [that she was due] because she knew it would be "complicated." Stephanie was able to take online courses during her pregnancy so that she did not miss any courses.

Some participants noted that their bigger struggle was actually after the baby was born and they had sick children or other issues that kept them from being able to attend things on campus. Daisy found, "When I had the baby, I missed a lot of stuff. I missed my job, workshops, and things I really wanted to go to but she was just too little and I couldn't just leave her with someone."

Pregnancy Planning

Participants planned 44 pregnancies and an additional 3 pregnancies were being tried for but happened a little faster than expected--this sometimes caused issues if they were trying to schedule their deliveries for over a school break. Participants experienced six unplanned pregnancies and an additional five pregnancies were also not planned;

however, the participants were aware that they were "playing with fire" by not using protection.

Participants gave various reasons for their planned graduate school pregnancies including fertility doubts or concerns, life-changing events, or simply the belief that graduate school was a good time to have a baby. Events threatening the lives or fertility of two participants motivated them to plan their pregnancies. Maddie disclosed that she had been harboring a severe postpartum infection for eight years, since her older daughter was born. After 36 straight days of hemorrhaging, her doctor suggested a hysterectomy. Maddie sought a second opinion where she received a uterine biopsy that revealed a chronic uterine infection. The new doctor pulled all of Maddie's medical records and found that Maddie had not only left the hospital with a fever after delivering her baby but she had also run fever at all of her postpartum checks and at 95 percent of her yearly pap smears. Maddie stated, "My partner and I, when we were staring at this hysterectomy, realized…we hadn't ever been sure if we wanted kids…but that choice was being made for us-we realized we were mourning the loss of that opportunity. And when I didn't have to have a hysterectomy was when I started trying." Clara also decided to have a baby after a bad car accident made her "realize that life was really, really, really short." Clara stated:

> The type of car accident I was in had a 50% mortality rate, so it wasn't uncommon for people to have died in the situation I was in. I was very badly hurt and once I recovered, I realized that life is short. I had always wanted to be a mom and I can't plan everything out.

Clara also suffers from Polycystic Ovarian Syndrome, which can make conception challenging. After being told by her gynecologist that conception could take five years, Clara decided to stop taking her birth control to "see what happens." Just six weeks later, while sitting in class, she received a phone call from her doctor telling her that she was pregnant. Clara said, "I think that's very 'academic mom' of me."

Several participants had fertility treatments in order to become pregnant. Marie went through fertility treatments in her same sex marriage; Miriam had Intra-Uterine Insemination (IUI), and Maisie went through In-Vitro Fertilization (IVF) due to fertility issues. Miriam recalled, "there were some issues on my end and so after about maybe five or six cycles, we were referred to the endocrinologist, who recommended we jump to IUI plus injections…and it ended up being successful on the first try." Maisie stated "It was complex in the sense that we'd been going through pretty aggressive fertility treatments for two years or so before I actually got pregnant…We went through a total of five rounds of IVF." Maisie felt as though the IVF treatments were "in many ways…way more stressful than the pregnancy itself, just emotionally…physically." She endured several miscarriages as well as having an egg retrieval on a day that she later had to teach class. Maisie explains, "You can't really plan on when you're gonna need to do the egg retrieval, because it depends on when you ovulate and you have to time it very exactly." The egg retrieval is a surgical procedure that requires full anesthesia so Maisie had her surgery that morning and then her husband drove her to work so she could teach that

evening since she was still under some effects from the anesthesia. Maisie declared, "There was no way that I could miss teaching that course. It was the last class, students were doing presentations so I needed to evaluate them in those presentations, and I didn't have anybody to cover it." In addition to that surgery, Maisie also underwent three additional surgeries to drain fluid from her uterus and said "I think that was the hardest piece…how to try to keep my shit together through that and just the physical and emotional burden of all that." Maisie also discussed worries over talking to people about her fertility treatments due to the taboo or stigma associated with IVF as well as the stigma associated with actively trying to get pregnant in graduate school. Another concern that Maisie mentioned regarding graduate students and IVF is feeling "like you can't ask for accommodations in that kind of situation, even though obviously should be able to and are able to."

Some participants discussed planning their pregnancies due to fertility concerns, worries about their age, or doubts about their ability to get pregnant. Daisy recalled, "I started trying to get pregnant at thirty six but I had some complications and wasn't able to get pregnant right away. I had several surgeries, there was a polyp on my uterus that was blocking the pregnancy from being able to occur…I just turned thirty nine when I found out I was pregnant." Julie was "told by doctors that it would be hard for me to get pregnant" so they tried for a month or two and then went on a month long vacation

abroad where they decided to stop trying and "just enjoy ourselves." An hour after returning home from vacation, Julie had a positive pregnancy test.

Marsha notes, "we were almost in our forties…we didn't know if it was going to happen or not, we just weren't trying to prevent it happening." Rose was also concerned about her age possibly being a factor:

> I was under the impression that I would probably…not be able to be pregnant. I was over thirty-five, I'd never been pregnant before…when we got married, I said 'Let's go ahead and try so I cannot have kids and we can mark that off.' We probably won't, I'll go on, get on with my life.

Rose was surprised to become pregnant nearly immediately, not even having a cycle before she got pregnant. Similarly, when they tried for a second baby at 38, it only took two cycles for her to conceive. For Anna, a family history of fertility problems weighed heavily on her, "…so many people in my family had fertility issues that I didn't actually think I would get pregnant. It was an intentional thing; however, when it happened, it really shocked me…I was not quite ready for it." Vanessa also had some concerns about her fertility:

> After like a year of not preventing…it hadn't happened…maybe something is wrong, I feel like it should have happened by now. So then we started really trying, and that was really hard and overwhelming, and very emotional. We went through another year of really trying and it not working. We were so poor…[I] tried all these crazy diet changes and took all these supplements…I was trying anything and everything that wasn't fertility treatments because we couldn't afford that.

Academic Pregnancy Planning

Many participants discussed planning to become pregnant during graduate school. They believed they would have more flexibility in their schedules that would allow them to spend more time with their babies than they would be able to once working a full-time job, or that having a baby during graduate school was preferable to racing a tenure clock while pregnant or taking care of a newborn. Many strategically planned their births to coincide with writing their dissertations so there would not be a résumé or CV gap. As Julie explained:

> We talk about 'burying the baby in the dissertation.' That's the strategy…I feel like I am taking a long time to finish but no one's going to question that time, whereas if I were in a 9-5 career and I just randomly took a whole year or longer off to be with my newborn, a lot of eyebrows would be raised about that missing time. But here, it's just part of the dissertation. I talk about how wonderful that first year with him was, but I spent a lot of that time panicking about my work and whether or not I was going to get anything done. The first year I was basically with him all the time…I nursed him for over two years and I was able to fit the kind of mothering that I wanted to do into the PhD.

Ellen had a similar strategy, stating:

> I think in general, grad school is a good time to have a baby. I kind of could hide the gaps in my résumé better. It took me seven years to finish my PhD, which is…on the long side for my department by a year or two, but in that time, I had three babies. It was a way for me to keep the résumé current and to actually keep myself stimulated and thinking but not super demanding on me.

Laurie recalled:

> We decided to have kids in grad school because we thought it would probably be easier than having kids when we were on the tenure track, and we didn't want to wait until after the tenure process. We had been trying for quite a while…and we

> were hoping that she could be at least maybe a year or so by the time I was doing my field work, but it just took so long for me to get pregnant. I'd actually given up trying because we were at the point where we knew if I got pregnant then, it would get in the way of doing my fieldwork…so the timing wasn't great in terms of having to do my fieldwork right afterwards.

Anneliese planned to have a baby in graduate school, deciding:

> I'm not willing to just pause my whole life, and even if I were, I would be getting around to being too old by the time I would feel safe to have a child…I started to see my career, instead as being my whole identity, as being a big part of my identity, but just a part of it.

Kim recalled, "I was writing my dissertation…my husband had graduated…we had a planned pregnancy so that one of us would have a full-time job with benefits and making decent money before we got pregnant." Sophia recalled:

> We were actually trying to plan it to when it would be best for me career-wise…it's very difficult in academia for it to be good career-wise at any time. I was trying to go for summer…we got pregnant right away. And with my second, I actually decided that summer was the worst time because I ended up not being able to [take] advantage [of] what little maternity leave is available at my institution for graduate students…I actually purposefully planned to have him in April…take the Spring quarter off.

Josephine also planned to have her baby in the summer, "…we planned it pretty specific to coincide in a convenient way with the academic year…so that I had the baby in the summer…I wanted to still be able to finish my degree…I basically wanted to wait until my fieldwork was done or, as it turned out, almost done." River also planned both of her pregnancies to be convenient with her academic schedule, "After my thesis proposal defense, I sat down with my husband and said:

> Yeah, maybe now would be a good time to have our first child. We wanted to

> have our second one while I was still a graduate student and had the cheaper health insurance and to try to time it so that it was close to when I finished. There was a lot of anxiety about actually getting to that finish line, in terms of getting the defense done, getting everything written up, and then trying to get pregnant at the same time. That was a very stressful time period.

Summer and her husband saw an opportunity to have their baby while she was in graduate school and he was unemployed:

> I had planned on waiting until after grad school to have kids initially, but with him out of work, we realized that he could be a child care provider since he was home. We had met a postdoc in the program…he said, 'there's never going to be a right time, you just have to do it.' I think that was the push I needed so we decided to try.

Diana planned her pregnancy to coincide with her final year, "We thought that would be ideal because I would have a lot of flexibility and I could take care of the baby while working on the dissertation, which, in retrospect was kind of ludicrous…that wasn't a good idea." Lauren was surprised when some of her mentors encouraged her to consider having her second child before she graduated, telling her, "If you ever wanted to have another kid, graduate school might be a good time to do it." Lauren recalled, "I decided that I would try to get pregnant again…they were all super excited and supportive." Jean chose her program with the knowledge that she would likely want to start her family in graduate school:

> This was always on my mind when I was applying to programs. I was actually choosing between one school and my current school and the advisors were very different. Part of the reason I chose the advisor I chose was because she had a baby in grad school and seemed a lot more family friendly. The department seemed a lot more family friendly. All the professors had kids…at the welcome interview thing, the professors brought their kids which I thought was really

cool.

Formal Policies

Formal policies that apply to all graduate students were only in place for 15 participants (30%), while 8 participants (16%) reported that they did not know if there were any formal policies, and 27 participants (54%) did not have any formal policies in place at their institution to protect them as a pregnant and postpartum graduate student.

Table 12. Formal Policies

Formal Policies	Number of Participants
Yes	15 (30%)
No	27 (54%)
Not Sure	8 (16%)

Those benefiting from formal policies included Claire whose university had a "parental relief" program that allowed students to remain registered so they could still access the health care staff, could still receive their financial aid, and also meant that international students like Claire, could stay in the U.S. on the same visa. Claire explained:

> It goes differently depending on if you're in the arts or the sciences. If you're a scientist and work in a lab, you get six weeks and then you work out a phased return to work with your advisor. If you're in the humanities, they set your clock back by a whole semester and they continue to pay you and do your health insurance.

Claire felt like the university had been embarrassed by attempts to unionize from their graduate students and by media reports of graduate students on Medicaid so they put things like the parental relief package in place in an attempt to stop the graduate students from unionizing. Other good leave policies from non-unionized universities included River's university, which had a six week maternity leave that allowed students to still receive their stipend, keep their health insurance, and pardoned any deadlines, and Maisie's university had a comprehensive parental leave package for "primary" parents and a less comprehensive package for "secondary" parents that allowed them to keep their funding and health insurance. Maisie read me the official policy:

> *Upon the birth or adoption of a child, the primary parent is eligible for an accommodation extending for a period of up to eight consecutive weeks. The secondary parent is eligible for an accommodation of two weeks, provided it is taken within twelve weeks following the birth or adoption of a child. During the accommodation period, the graduate student will be relieved of the service requirement that accompanies his or her assistantship funding during the remainder of the semester. Before and/or after the accommodation period, the student's program will assign service duties consistent with the academic nature of the graduate assistantship.*

The graduate school at Jean's university offered a six-week work-life balance grant for which students could apply. If a student received the grant, their department paid half their stipend and the graduate school paid the other half. This option is not just for maternity leave but could also be used for adoption. Fathers are also eligible for it, and it can be taken for those who need to give care to an ailing or dying family member.

Marie's university had a less helpful policy that allowed "an unpaid one-quarter maternity leave without getting thrown out of the program but you would have to pay your own health insurance and everything which would have been impossible given the [stipend] amount that they gave you." Allison's university also allowed an unpaid leave where a student could keep their health insurance but had to pay for it out of pocket upfront. Diana's university allowed two weeks off and students worked anything additional out with their department. Helen's university allowed "a semester off without penalty towards your time to finish." An extra quarter of funding for maternity leave was allowed at Sarah's university; however, Sarah stated, "It seemed like the PhD office in my particular school wasn't that sure about it. I don't know what the status of it was exactly. It was confusing or new. There were some issues with implementing it."

Elizabeth's university allowed eight paid weeks of maternity leave which sounded great to her on paper but actually ended up being a frustrating experience for her because a paper came back for revision and her boss insisted that she address the revisions immediately and work from home. She was eventually told she needed to come into the lab at 9:00 PM one night to work and that if she did not, she would no longer be first author on the paper, so she put her baby to bed and went to the lab. Elizabeth recalled, "That was definitely the worst part of my whole pregnancy/maternity experience. What sucked the most about it was then, even after all that, she decided to have someone else

work on it because she decided it wasn't complete enough and I wasn't first author on it anyway."

Some universities were unionized and had policies in place but they varied in terms of benefits. Laurie told me she once had a conversation with the union staff about how to creatively piece together sick days to be able to maximize the amount of time you could take:

> Let's say you have three sick days, try to argue that you do all your work just one day a week and then you could spread those three sick days out to not have to go into work for three whole weeks as opposed to saying your work was three hours a day, three days a week, in which case you would use all three of your sick days in one week.

Clara's university was unionized but the only option was to take a leave of absence, which would pause their time in the program. Ellen's union had negotiated up to 12 weeks of unpaid leave and one's spot in the lab would be held until the student returned. Sophia should have received six weeks of paid maternity leave and the option to take the remaining five weeks of the quarter unpaid according to her university's policy, but none of the people she talked to at her university, including the human resources office and her department head were unsure how the policy worked. Sophia only found out how the policy should have worked after both of her maternity leaves, during which she was made to double up on teaching in order to get leave. The official policy at Patricia's university is "eight weeks from the birth of the baby and I am able to step away from all my responsibilities during that time and it's protected legally."

Nine participants (18%) were unaware of the policies at their universities or if there even were policies in place. Students are unable to take advantage of policies they are unaware of. For example, Katherine was unaware that she was entitled to two weeks paid leave and went directly back to work. She only found out much later, through her friendship with her union steward, that she would have been able to take off two weeks.

Josephine suspected there might be a formal policy in place because graduate students at her university were unionized, but she was not sure. Julie also thought there might be a policy in place for full-time teaching assistants (TAs) but was not sure about the details. Both Zora and Lena stated that graduate students who were working in positions covered by their graduate student union had some sort of policy that covered them but they were unsure what the policy was because they were both on fellowships. Zora voiced her frustration:

> That's another thing that would have been nice if there was someone in our department or administrative corner knew. I had to find out these things through other students who had had babies. They really strongly encouraged us to pursue these grants but there was no support because their benefits were benefits the grad student TA union had fought for. They weren't expanded to students who weren't working as a TA.

The remaining 26 participants (52%) did not have formal policies in place at their universities regarding pregnancy-related absences and/or maternity leave. Many of the participants, including Bonnie (who attended a university where the graduate students were unionized) and Carol, reported that because they were not seen as employees by their universities, they were not eligible to take leave and if they decided to take any sort

of leave of absence, they would lose their health insurance, health benefits, and stipend. Sheera felt like her university "totally ignored pregnancy as a thing" and while she did not have her health insurance through the university, a close friend of hers was unable to take medical leave because she would have lost her health insurance. Sheera was actually running out of time to finish her dissertation when I interviewed her, telling me "I took a semester of medical leave for the first pregnancy and that doesn't change my time. Neither pregnancy stopped my clock. I actually time out in March, like, two months from now. I have to graduate by March." Because of the time to degree constraints put on PhD students, many women who have pregnancies during graduate school end up pushing up against those time deadlines if their clock is not stopped or extended due to the pregnancies.

Chloe recalled being "given the runaround" when she began asking what policies were in place at her university. No one from the Dean's office knew what the policies were and Chloe ended up going office to office through the main administrative building and could not find anyone to answer her questions, "It turns out it was just making sort of off-the-books arrangements with your advisor so you were kind of at the mercy of your advisor...and my advisor was not the most supportive." May explained, "It's very much just that they basically expect you back as soon as you possibly can be unless you make arrangements on a one-on-one basis with your professors and faculty." Louisa's unionized university does not currently have formal policies in place, but they were in

development when I interviewed her. Despite also attending universities where the graduate students are unionized, Daisy and Maria also reported that their universities have no formal policies in place to protect their graduate students during pregnancy and the postpartum period.

Informal Policies

Informal policies were more common than formal policies with 22 (44%) reporting that informal policies existed in their departments, 2 (4%) stating they were unaware of any informal policies, and 11 (22%) stating there were no informal policies in place. The 15 participants with formal policies in place did not have informal policies in place because there was no need for them.

Table 13. Informal Policies

Informal Policies	**Number of Participants**
Yes	22 (44%)
No	11 (22%)
No Sure	2 (4%)

Bonnie said that it was up to the student to work out with their advisor if they needed to leave the lab early or take a day off the lab, but also stated, “There was always some type of penalty associated with it, just like, this irritation, that I had to take time

off." Bell recalled having to advocate for herself, telling me, "It wasn't anybody saying let's come up with a plan to help you manage this, it was me saying, 'This is a lot!'"

Julia's experience, in comparison with her colleagues, shows the issues with relying on informal policies and leaving your graduate students' fate up to their individual advisors:

> Not coincidentally, almost all the women I talked to had older male advisors. Basically, [they] had some flexibility but had to make up all their work-it was just...jumping through hoops. I remember being really, really scared that was what would happen with my advisor and my classes and luckily my advisor and my supervisor were both mothers and were a lot more flexible. The informal policy was whatever you can work out, you can work out. It felt very unfair. I had a lot of moments where I had survivor's guilt that I didn't get the horrible end of the stick. Hearing from these poor women who were dealing with just...total assholes. These are totally clueless advisors. It was very much just network and luck-who are you with and what will they put up with and what will they do for you? You just had to hope it would work out.

Helen's university also allowed whatever the student and advisor could agree on, "which is obviously problematic in some ways, depending on who your advisor is." Maddie's university's informal policies were "Completely all over the place. You have no support and you can't take time off and the informal things are whatever your advisor is willing to say is okay." Maria said "it was different for everyone" at her university.

Summer said she was not "discouraged from finding a substitute for postpartum stuff. They allowed me to find somebody to cover my classes" and Vanessa, Kim, and Anneliese's universities shifted their students to online classes so they could stay home. Patty and Sarah's university/department allowed them to take the semester off from their

TA responsibilities, but they had to double up on a future semester to make up the lost time. Miriam found that it was up to her "advisor's discretion" and was hired for 20 hours a week but not actually required to work that many hours. Clara's university insisted accommodations be handled at the department level. Cecelia was able to request a leave of absence for one semester, but it meant she lost all benefits, library access, health insurance, even access to a job app that is affiliated with the university, and she was made to reapply to the university in order to return the following semester. May told me that because so many of their students are in the hard sciences, "They usually just come back to work after two weeks and just keep up with their full-time routine."

The unpredictability of informal policies causes unnecessary stress on pregnant graduate students. This puts the onus on them to advocate for their needs, while also trying to stay in the good graces of advisors who are unlikely to insist that they take adequate time to recover. Furthermore, these arrangements must be worked out with advisors far in advance and it is nearly impossible for a pregnant woman to know how long it will take her to recover from each birth because each pregnancy and each woman is different.

The student may negotiate two weeks off with her advisor but end up having a traumatic delivery and be unable to return on that timeframe. This puts the student in an impossible spot that she should not have to be in. The adoption of formal parental leave policies that are compulsory and the support of those policies by administration would

help students in vulnerable positions not have to rely on their ability and willingness to negotiate with their advisors and advocate for themselves, nor on the hope that their advisors will be willing to allow them the time needed to recuperate. Additionally, the adoption of formal policies would help ensure that there are equitable accommodations across campus and even within the same department. In the discussion below on what sort of maternity leave participants were allowed, students within the same department received very different accommodations based on their advisors and their own willingness and ability to negotiate and advocate for themselves.

RESEARCH QUESTION 2: SUPPORT NETWORKS AND INSTITUTIONAL SUPPORTS

Institutional support began (or did not) for most participants when they decided to disclose their pregnancies to their advisors and faculty. Most participants expressed some concerns over disclosing to their advisors or departments that they were pregnant. For some participants, disclosure ended up being a positive experience where they felt supported. Others reported feeling as though the experience was not necessarily good or bad. I coded this as a "mixed" experience. And still other participants had negative experiences when they disclosed their pregnancies to their advisors or professors in their department.

DISCLOSING PREGNANCY

Good Experience

Many participants said they were very concerned about telling their advisors or chairs about their pregnancies because of worries about how they would be perceived or fears that they were somehow letting their advisors down. Claire remembered, "I was really nervous about it because I was worried that they would think that I wasn't taking the process of finishing my PhD seriously. That I risked getting snubbed for [getting] pregnant…there weren't lots of women in my program…there definitely weren't many mothers." Claire reported that thankfully, her advisor's wife had just had a baby and he was "enthusiastic but in a slightly subtle way. He was like 'You've chosen the best moment to get pregnant, that is so smart,' which was nice." Claire stated that her advisor

> didn't expect that [the pregnancy] was going to really have any impact on me…that was good insofar as he certainly wasn't giving up on me because I was having a baby…there was some degree of stress insofar as it didn't feel like there was a lot of room for it to make any difference to me that I was having a baby.

One of the other members on Claire's committee was also supportive, even going to a ceramics café and making her a gift, "because you're going on a journey by having a child." Mary was also worried about telling her chair:

> I was worried she would think I wouldn't be able to handle it because I was transitioning into prelims and starting my dissertation…I was worried that if I told her, she would assume that I may not be taking grad school serious…or that I might not be able to handle it because…graduate school is already hard enough and why am I gonna have another child at this time, you know?

Fortunately, Mary reported:

> It ended up that my chair was super excited and supportive...and she actually bought a little onesie…for some reason, she knew that it was going to be a baby…she was really excited and very supportive and so that made it very easy for me to be like, okay, this is gonna be okay then.

Yvonne was concerned about disclosing her pregnancy to her advisor:

> [They] had put so much time and effort, spent so much time with me and effort towards our project. We had planned everything out and I felt like me disclosing this information might…put a wrinkle in our plans. I didn't know necessarily how it was going to go over, but [my advisor] was the first person I told on campus…he responded with, just…I mean, it was hugs, it was excitement, it was everything that I thought it wasn't going to be…I felt like from his perspective, it was 'Oh, gosh, here we go. Here's a student that might not finish.' But it was nothing like that…nothing but excitement and he wanted to know how I was doing and how the pregnancy was going and it was all of the questions that a concerned human being would want to know about someone they remotely cared about…it was nothing but excitement and he was overjoyed that my husband and I conceived so it was very nice.

Cecelia was also worried about disclosing her pregnancy to her advisor. Cecelia said, "I was so nervous. I was extremely nervous, I knew that he was not going to respond negatively, but I still felt super nervous. He told me 'Congratulations'…he was very, very warm…externally, he's been very supportive since that first meeting." Kim also expressed concerns about how she would be perceived upon disclosing her pregnancy to her chair, "you never know in these types of situations how you're going to be perceived. Maybe that you took your career less seriously and that maybe you're not going to do anything with your degree. That's the perception I was worried people had." However, Kim was glad to find, "She was very understanding, nothing negative."

Many participants discussed having good experiences because they had mentors or advisors who either had small children or had gone through pregnancies during graduate school themselves. Patty also had a good experience, stating, "It was great, my advisor was actually really supportive. She is an adoptive mom and had gone through that process while pre-tenure…she understood that were would be difficulties and was very supportive of it." Meg said of her department:

> They were positive, just matter-of-fact. Most of the people in my department are women…one is around my age…she's a single mom. She had him, I think she said she was proposing her dissertation two weeks after she gave birth…it was kind of taken nonchalantly, like, "Oh, yay for you," and then moving on.

Louisa interviewed for graduate school while:

> [I was] nine months pregnant with male faculty members, and you could just see them awkwardly asking questions…I'm happy to be the trailblazer…it was foreign for a lot of my cohort members…I could see the benefit for them because most of them are going into faculty roles…seeing how I was supported and how I worked and balanced things, there was a line of respect and understanding…I wanted it to be a learning experience for everyone so that they could role model good practices in the future and have a strong level of understanding.

Louisa also found a mentor in a faculty member who was also expecting, "I honestly believe that if it was not for her, and our common interests and also that common bond of expecting at the same time that I would not have been set up for success." Josephine also felt pretty comfortable telling her advisor, noting:

> He's pretty family oriented in his own life…and there had been two other students who had babies while in this program. One was a male student and it didn't really seem to affect his progress…but his wife didn't work either. One was a female student who took a long time to finish her dissertation after the baby. It wasn't like this is a normal thing to do, to have a baby while you're still in grad school.

> [My advisor] was pretty positive. He immediately went into, '…let's figure out how we should plan your next year to plan to be in a good position when you have the baby to not have a lot of things on your plate.'

Lauren also benefited from a mentor who had a baby while Lauren was pregnant:

> She in particular has been really helpful a certain points with specific decisions that I needed to make where she's much further in her career but very recent in the baby having time. She has been really helpful with some of that more concrete, 'Should I take my three month old to this conference across the country,' kind of stuff.

Julia's experience "was actually really great. My supervisor was super, super, duper supportive, really, really excited for me. She had also been pregnant in her doctoral program." Laurie shared an advisor with her husband and was pleased

> He was supportive and he told us about how his wife got pregnant while they were both in grad school, and in addition to that, they also adopted a child while they were in grad school too. And one thing I thought was really cool is that he told my husband all the same things he told me in separate conversations…if I need[ed] to slow down my timeline because of it, that's totally okay with him, but also I didn't have to if I didn't feel like I need[ed] to. And he said that same thing to my husband as well, so it's not like he assumed that I would be the one who might take time off and my husband wouldn't.

Rose also had a very positive experience in her department, noting:

> They were all very happy…they were all very happy with me, for me. One of my only female professors…I just remember her pulling me aside…after class one day and saying 'You know that it's okay. The first time I got pregnant just completely changed me.' That just…kind of had a weight lifted off my shoulders…she's someone I really look up to, for her to kind of get down on my level for a second and tell me, 'Hey, I know how you're feeling right now being pregnant…and trying to do schoolwork.' That meant a lot to me.

Some participants simply had a good experience where they felt their advisors, chairs, or departments were supportive of their pregnancies because of the reaction they

received. Jane was pregnant when she interviewed with the Department Head at her school and while she did not tell the department head about her pregnancy, she met with her potential advisor afterward. Jane said:

> [The advisor] asked me a couple of questions like 'are you planning to have any babies?' and she very openly said 'I am very, very supportive if you decide to have children.' She actually suggested that this is the best time for you to have your pregnancies. I told her [that I was pregnant] straightaway after she told me, 'If you decide to get pregnant...'

Bell recalled having to disclose her pregnancy earlier than she would have liked because she was showing very early due to it being her third pregnancy and initially a twin pregnancy (she miscarried the other twin later). According to Bell:

> I wanted to wait within that first trimester but I had to say something before because you could really tell…My chair's response, 'You know there are ways to prevent this but we'll get through this,' and she gave me a hug. I felt she was like "we're a team, we can do this, we'll get through this, women have done this forever, you'll be fine.'

Maisie's experience with disclosing to her advisor was also a positive one. Maisie said:

> Everybody was really excited. My advisor knew from the beginning about everything we had gone through [with fertility treatments and multiple miscarriages] so she was super excited for us, and very much, 'Do whatever you need to do to take care of yourself during this pregnancy.' …really encouraging me to kind of take a step back and recognizing that pregnancy is such a physical burden and that I had already been through a lot. She was kind of concerned in a very maternal way…just making sure that I was taking care of myself so that I could have a healthy pregnancy and a healthy baby.

Maisie was collaborating on a project with another professor which proved to be "the trickiest situation to navigate" for her when she had to disclose her pregnancy in

order to explain why she could not travel to a foreign country on her due date for the project, "but he was also very supportive and recognized obviously there was no way that I could be traveling to that." Julie's advisor was "very supportive. She doesn't have children herself so she's sometimes not realistic but she genuinely wants to be supportive. Same with my committee, I'm very lucky to have a very supportive committee and no one seems concerned or panicked." Summer disclosed her pregnancy the day after she found out because she was concerned about chemical exposure in a class for which she was a TA. Summer explains, "I did end up teaching that summer with a gas mask on…but I told my PhD advisor, I thought she was going to kill me but she gave me a hug and like 'Congratulations!' It went okay."

Mixed Experience

Some participants had what I have conceptualized as "mixed" experiences with disclosing their pregnancies to their advisors. It is important to note that this was my perception based on their stories and that they might have classified their experience differently if asked directly. For most of these participants, the reaction from at least one of their advisors was positive and they had a negative reaction from at least one advisor or from other students.

Daisy disclosed to her advisors at only six weeks along because she was having such terrible morning sickness and found that "One advisor was totally hands off…the other I felt was like, 'Don't give me excuses about morning sickness. How are we going

to finish our research? Don't try to use your pregnancy as an excuse not to do work.'"

Daisy was frustrated:

> Look, I'm not using it as an excuse, I genuinely cannot do work. It's too hard and I'm exhausted. I'm thirty-nine years old and I'm pregnant. The thing I need is help. I'm not saying all thirty-nine year olds are like me but I have an autoimmune disease, I have issues with my thyroid. I have other health complications so I just couldn't physically do it.

Emmy's experience was also mixed. Her chair was "just happy and excited" however, Emmy stated:

> The graduate advisor made a comment in the office, with the associate chair standing there, 'We are not going to let in any more married women. They take too much time off to meet family obligations,' and everyone tried to laugh it off. I didn't know I could file a complaint at that point, and actually, I'd been told not to piss him off because he kind of held the treasury for the department…I mean, he was an awful man, but our chair was really great and he was really nice about it and they were going to let me do whatever I wanted to do, [be a research assistant, lab TA, etc] because I was due [mid-semester]. He was like, 'You can just do that for the first part of the semester and then the second part of the semester, we'll work with you however you want to.' So they were really great.

Overall, Maddie's experience was very positive, with one exception:

> My advisor and my co-chair…I told them the day of, like, I texted them a picture of my pregnancy test…they were amazingly supportive. My advisor had just come off maternity leave when I started and in my second year…she got pregnant with her second child so I'd cover for her when she was on maternity leave. And they were both freaking out, like super, super excited.

Maddie chose to wait to disclose to her supervisor due to the contract nature of her work:

> I'm not considered an employee so I have no legal protections whatsoever and I knew that this baby was gonna be born in the middle of the Fall semester and I was really worried that if I told them I was pregnant that they wouldn't give me a position for the next year. She's actually been incredibly fantastic and excitedly

> supportive but because I can't read her, I didn't know that's how she was gonna be. And I don't have health insurance if I don't have a contract.

Unfortunately, the reaction from Maddie's program coordinator was not quite as positive as the reactions from her advisor and co-chair:

> He said, 'but you haven't done your prospectus yet' and I was like 'yes, I'm aware' and then he said 'are you moving to [state]?' which is where my partner is and I wanted to kick him. And then he called my advisor all concerned like, 'We should make sure that she doesn't drop out' and my advisor was like 'She's not dropping out.' I don't think that he's unsupportive, I think he's just tone deaf.

Maria said of her advisor:

> [She] already had her own kids and she was very supportive…but other professors looked at me differently. When I was showing, people would look at me and…I had this feeling that they didn't treat me very seriously, that I would never finish or I don't know…this is the feeling I remember. One of our professors invited us to his home and his wife was also a professor in our department so she…kind of looked at me like, I don't know, condescending. I didn't feel like she was very sincere in congratulating me.

Vanessa asked for a private meeting with the chair of her committee and asked to shut the door:

> And he was like, 'Well, I don't like when we shut the doors, you know, opposite genders" and I was like, 'Alright, I'm gonna whisper.' And I told him, and he's like, 'Yeah, I kind of noticed you started pinning a lot about babies on Pinterest, so I kinda thought maybe it would be coming soon.' His wife got pregnant three months after me and I noticed they posted some [baby] stuff on Pinterest, so he was like, 'I totally understand, thanks for letting me know.' I felt like I needed to tell my [department chair] and it might impact my job. I was really scared to tell him, actually…and when I told him, he goes, 'Oh, I'm sorry' as a joke, but I was thrown back, like 'WHAT?!' He goes, '18 years. You're stuck in it for 18 years now.' And I was like 'Okay, but I wanted this, so thanks.' He just kind of laughed and was like, 'Okay, cool. Good to know.' He just made jokes about it. It was an interesting moment.

Ellen's advisor also made a comment with her first pregnancy that was unhelpful, saying, 'Wow. That's a surprise. Was it a surprise to you?' With her third pregnancy in graduate school, Ellen was struggling mentally and having trouble keeping up with her studies. Her advisor was unable to keep funding her through another unofficial maternity leave but she felt like she had enough support and understanding through the first two pregnancies that she "was okay with not necessarily getting as much support with the third one."

Miriam was concerned that her advisor was going to be disappointed in her when she got pregnant with triplets and then had to reduce the pregnancy to twins, saying,

> There was a lot of really intense guilt and anxiety…it was just a very emotional time…and I wouldn't necessarily say that my advisor was supportive, the only reaction I remember is when I told her about the reduction, she was raised in a very Catholic country and she'd never ask for that…I refuse to feel any shame or guilt about deciding what was best for our family and I wish I hadn't had to do it but I did.

Anneliese did not want to disclose her pregnancy to the faculty member that she was a TA for because she felt like he was "riding [her] hard anyway" and she did not want it to "seem like it was an excuse for any mistakes [she] made." Her dissertation chair was supportive and "went to bat" for her when she had preeclampsia and an induction, however, he was unresponsive to the draft she sent him of her dissertation prospectus on January 1, not getting it back to her until May 4. Marie felt as though a professor who heard her pregnancy news "looked at [her] like [she] had a lobster on her head."

Ann had a positive experience with the faculty, but a less than positive experience from one of her fellow male students whose reaction to her saying she was pregnant was 'Oh, so are you going to quit now?'" Chloe's relationship with her advisor was already tense and the advisor had a track record of not being supportive of Chloe when she had to miss class due to her older child being sick so the advisor's neutral reaction pleased her despite it not being a supportive reaction. Anna was dreading the conversation with her advisor because of hearing that he had already reacted poorly with another graduate student but stated that he ended up being more supportive than she expected, although she notes that she "went in with a pretty low bar."

Bad Experience

Three participants had a negative experience disclosing their pregnancies to their advisors either because of direct comments that were made to them or the lack of support they experienced. Bonnie's advisor told her, "I wouldn't be surprised if you just dropped out of the program at some point and became a suburban housewife and raised your kids and that was the extent of your life." Because of the lack of support from her advisor, Bonnie felt the need to "over-show [her] commitment" by working late hours, responding to emails quickly, and working up until the day before her water broke because she "didn't want them to think I was wavering in my decision to pursue my career." When Sheera disclosed her pregnancy to her advisor, his response to her was "This is not the fastest way to finish. If you're interested in finishing quickly, this is not the best way to

do it." Helen was disappointed in the way the conversation with her advisor who responded, "Well, what do you want to do about the PhD? I don't know if you're really going to finish."

NO FEMALE ROLE MODELS WITH CHILDREN

Several participants mentioned the need for female role models with children in academia. Unfortunately, the research and data (Mason et al. 2013) in this area show that children have a negative impact on the career of female academics throughout their academic career. This starts in graduate school and continues throughout their academic careers, leading to the majority of adjunct and contingent faculty ranks being made up by academic mothers.

Josephine noticed:

> In my program, there aren't any tenured female faculty with kids. The tenured female faculty that are there don't have kids…the male faculty would just tell me about their kids and how great it was when their kids were born. They didn't really have the experience of being a woman in the field having a baby, but I guess they generally thought it would be fine because it was fine for them.

PERSONAL SUPPORT NETWORKS

Participants were asked what sort of support system they had in place and who they could turn to if there was an emergency. While some participants discussed their family members and other support people in their lives, many participants talked more about their lack of a support system and others reported that while they did have some people in their lives they could count on, they also experienced a lack of support from those in their lives that they expected would support them. Some participants really only had their child care providers to rely on.

Good Support

Maddie's story of how she built her own support system as a single mother was inspiring. When Maddie's older daughter was a baby, Maddie came home from work to find her husband had moved out, leaving Maddie completely alone with the baby. She realized her husband had intentionally isolated her from others and set out to "build a village so wide and so deep that no one person could ever break it." Maddie met a mom at the park who lived nearby and got her number. After her daughter was hospitalized, she emailed the mom and said, "This is going to seem so weird. I don't even know if you remember me, I'm in crisis and I know that I need help but I don't even know what I need." Maddie told me, "Every night for a week, when she made dinner for her family, she made an extra serving and left it on my front porch." Maddie then decided to actively go to parks and meet other moms and exchange numbers, telling me, "people are much

more willing to ask you for help if you've asked them first. So, I just started being willing to ask people that I barely knew and then when they were in crisis, they felt more comfortable asking me and we would just go back and forth like that." Maddie's diligence paid off and she has built herself a thriving support system. While pregnant with her son, she had a Facebook group that she called her Birth Village. Despite not having family or her partner living in the same state, she had people signed up to pick her daughter up from school, people who would drive her to the hospital if she went into labor before 37 weeks, people who would stay with her in the hospital until her partner and mother were able to fly in, and if she was able to have a home birth, people who would be with her through that, and even people who would go get food for the midwife. Maddie told me, "They're not people I'm related to biologically, they're just my chosen family. I belong to a local Facebook group for moms and they all pitched in because one of the moms met with the caterer and she literally stocked my freezer full of casseroles."

Bell was raised by her grandmother and when the grandmother came over, "she would watch the kids and clean for me and do my laundry. I would just sit in my office and write. If it wasn't for her, I would've never been able to finish. She sacrificed her summer for me." Emmy said she has a wonderful support system in place with parents who regularly watch her child at least one full weekend a month and can come in and help as needed. Emmy also has several close friends she can rely on. River's brothers live in the same town and she is fortunate to be able to work from home. Her husband is also

able to take off from work as needed, and she has friends that she talks to regularly to get advice. Rose also has a good support system, relying on her husband and her friends and mother who have PhDs. Maisie's parents live nearby and are able to help her out.

Julia also had a pretty good support system in place as her husband is able to work from home and she has a very understanding supervisor who "trusts me that I get shit done and I will not let a ball drop." She also has a neighbor across the street who is a former pediatrician and runs an in-home daycare. Julia told me, "I never feel like I'm drowning, because I always have her as a backup." Julia also shares a close relationship with her sister, who she talks to everyday. Marie's parents stayed with her family "maybe 80% of the time;" however, they did not have many friends with children or people to turn to for advice.

Yvonne's husband was her main source of support, but she had friends who were also graduate student mothers, including one who came and got her son at 3:00 AM when she went into labor. She also had good friends that would bring her food when she "wasn't eating very well" and her mother-in-law lives two and a half hours away and was able to help out in emergencies. Zora was able to rely on an extended family and social network. Zora's baby was diagnosed with Down syndrome, also referred to as Trisomy 2,1 while she was pregnant and her husband wanted her to terminate the pregnancy.. Babies born with Down syndrome have an extra copy of chromosome 21, which changes the development of the baby's brain and body and can cause mental and physical

challenges (CDC 2018). Despite her son's father's initial misgivings about their child's Down syndrome diagnosis, he has now come around. Zora said, "He's a really good dad, and he takes him on the weekends and that's when I get most of my work done."

Lena was fortunate to have a group of friends with children of about the same age, a fantastic daycare, and a group of families from the daycare she traded child care with sometimes, too. In addition to that, she had a safety net at her university with subsidized backup child care.

Anneliese relied on her family for child care and another academic mother plus some Facebook groups for mothers in academia for advice and support. Anneliese said of the Facebook groups that "mining the collective experience of mothers is valuable...with feeling isolated and feeling like I'm not myself and that's been valuable to kind of help me cope and to not feel all alone."

Louisa was part of an underground PhD mom's group at her university. The group was exclusive and potential new members could only be added if they were tapped by a member who was already a part of the group. The members would help one another out with child care and help each other troubleshoot situations at the university. Miriam was very fortunate to be able to afford "a ridiculous small army of help" since her twins were born. Miriam explained:

> We employed a person to walk our dog, a bi-weekly cleaning person, a part-time nanny, and when they were born, we hired a night nurse for three nights a week to help with the sleep deprivation. We now have an arsenal of sitters. We registered with an agency for the days my kids are sick. We throw a lot of money at the

> problems to make it work, and then I relied on my friends, my therapist, and my mom to support me emotionally and successfully.

Limited Support

Bonnie's support system was somewhat complicated and she experienced a lot of guilt stemming from what she felt were judgmental comments from her sister and her mother, both of whom were stay at home mothers and disagreed with Bonnie's choice to work and go to school. Bonnie told me:

> Because I was a working mom, I had all these working mom issues about guilt and stuff like that. I think at one point, I did disclose to my sister and my mom that I feel all this guilt and they're like, 'That's the choice you made for your life, you have to deal with the consequences. You chose that. You chose this path. Suck it up, deal with it.' So there was no support in that way.

Bonnie had some support from her pastor's wife and from her mentor, a female professor with a baby just three and a half months older than Bonnie's baby. Her mother also helped her until her baby was about five months old but her health was not the best and Bonnie "knew even coming to my house twice a week was too much of a strain" and Bonnie's mother was diagnosed with cancer not long after.

Cecelia's mother was about a two-hour drive and was able to come occasionally but could not always get there for "immediate emergencies" and she also had a mentor in her program who helped her a lot. Diana's husband lived out of town and she had one friend who would watch her baby maybe once a month and she talked to her parents on the phone for emotional support. Elizabeth told me that in the beginning, despite her parents and her in-laws being nearby, she "can't honestly say that anyone really gave us

much help in the first ten weeks." Elizabeth ended up moving in with her in-laws after she began her postdoc and they were a "huge support" after that.

Lack of Support

Daisy told me, "I don't have any emergency child care, I am the emergency child care. I am my only support." Josephine also suffered from a lack of a support system, "We don't have any family where we live now and we moved here in the summer. We don't really have friends that you would call in an emergency, I realize we're probably lacking in our support system in ways I'm not really sure are avoidable right now." Mary's parents lived an hour and a half away so they would sometimes watch the baby for conferences, but Mary told me, "to be honest, my husband and I never really try to utilize...we always felt guilty...not guilty but...we always felt bad asking people for help so we would avoid asking anybody for help." She then goes on to tell me that despite her brothers living next door to them, they have only asked them for help when her water broke and they needed emergency child care for their daughter. Mary also said that her chair was very supportive in terms of time and expectations.

Vanessa also had no family nearby and no emergency child care, "because we can't afford to pay somebody." Vanessa and her husband, also a graduate student, had to alternate missing classes if the baby was sick because their stipends were not enough to cover child care.

Support from Child care Providers

Carol did not have any family nearby and her daycare did not have an opening until her baby was six months old; however, from the time the baby was two months to six months, Carol was able to use a caretaker who was trained as a nurse. Carol told me, "She taught me a lot about babies really and just about baby behavior. Even though she was there taking care of the baby, I spent a lot of time with her and baby learning about what I was witnessing and learning some tricks with that." Sheera did not have any family nearby but did fly both her mom and her mother-in-law in occasionally to help with child care in addition to having child care providers. Sheera told me, "Support can be had if you have the financial wherewithal. Child care was really expensive for us. We knew that, for my mental health, I needed quite a lot of help and we paid for it to our own financial detriment. We ate down our savings."

Extended Stay after Birth of Baby from Family Members. Claire also mostly relied on her child care provider for in-person support. Her mom came and stayed with them the first four weeks but after that, Claire "didn't have a huge support network." Once, when Claire was suffering from mastitis and was so sick that she could not care for the baby, her husband took off work and came home to take care of her. Otherwise, Claire talked daily on the phone with her mother, who lived in another country, and often texted a friend of hers who also was in another country.

Jane's parents also live out of the country but her mom came and lived with them one month before the first baby was born and stayed for five months after the baby was born. With Jane's second baby, her mom came one month before the baby was born and stayed for two months after and then her sister came and stayed that summer for three months. After that, Jane and her husband were left with no support because both of their families lived outside the country and they did not have a good social support network. Maria's mom also stayed with her the first few months after her baby was born, but once she left, Maria had no support system besides her husband and in-home daycare providers.

Chloe's mom lived "halfway across the country" but was able to come stay with her for a month after the baby was born and then for another month when Chloe "was in major crunch mode to get [the dissertation] done." Chloe also had her in-laws nearby who helped out a lot and her husband was "the most supportive husband in the entire world" who works full-time and "does 75% of the household chores." Additionally, Chloe had a great group of friends in graduate school who were always willing to help out and would push her baby around campus while Chloe was in class.

Getting Academic Work Done

Participants were asked when and how they were able to get their academic work done to ascertain how they were balancing their workload and motherhood. Many participants had a combination of times that they worked on their schoolwork, such as

getting up early and staying up late. Of the 50 participants, 29 (58%) participants responded that they worked after their children go to bed, 24 (48%) worked while their children were in child care, 14 (28%) worked on the weekends when the other parent could watch the children, 13 (26%) worked during their baby's naptime, 9 (18%) got work done while holding, nursing, or watching their baby, 7 (14%) participants got up early in the morning before their children were awake to work, and 5 (10%) worked on their schoolwork while they were at their full-time job.

Table 14. Getting Academic Work Done

When/How Participants Got Academic Work Done	**Number of Participants**
After Children are in Bed	29 (58%)
While Children were in Child care	24 (48%)
Weekends when Children were with other Parent	14 (28%)
During Baby's Naptime	13 (26%)
While Holding, Nursing, or Watching Baby	9 (18%)
Early Morning	7 (14%)
At Full-Time Job	5 (10%)

Daisy worked for three hour blocks at night after her baby went to sleep. Mary told me "I just stayed home and worked throughout the night when everyone was asleep, wake up and go to work, and come back and do the same thing." Maddie also worked at

night, telling me, “I usually sleep four hours a night like, if I don’t, the whole world feels awful, so yeah, whatever little chunks of time I can steal away is when and how I’m getting it done.” Vanessa told me that while she did work a lot late at night, it was “really hard” because she works better in the daytime. Yvonne recalled, “I was definitely working most nights. I would be exhausted the next day and I don’t know how I would re-up and try to do it all again.” Sheera told me, “I’m a night owl, so I worked from 9:00 PM to 1:00 AM a lot. Those are my “me hours.” Meg said, “I would just work every moment I could when he was sleeping. I have never been able to work when [the kids] are awake. Usually, I’m working from 10:00 PM-2:00 AM.” Nearly all participants who stated they worked after their children were in bed also discussed how fatigued they were and how difficult it was to work that late and submit quality work. Most participants sacrificed sleep to get their work done with many reporting four or less hours of sleep a night.

While their baby was in child care 24 participants reported working on their academic work. Diana noted that she “was not making any progress until [the baby] was old enough to go to [child care].” Ellen stated, “it wasn’t until I got back to campus that things really started rolling again. I tried to do the bulk of my work during daycare hours.” Julia “realized it was really, really hard for me to do work with him in that house” so starting the baby in daycare was helpful for her to become productive again. Carol put her baby in full-time daycare at six months old “to theoretically become a full-time grad

student" but found "my progress was slow because I was just really tired" and admitted she "took more naps than she probably should have." Meg discovered that by paying for a YMCA membership, she could have two hours of free child care a day so she would drop her children off at the YMCA child care while she worked on her classes.

Fourteen participants worked on the weekends when the other parent was able to stay home with the baby. Julia ended up getting a desk at a co-working station for $300 a month so that she could work whenever she wanted: nights, weekends, the middle of the night, etc. Co-working stations are typically office spaces that are shared by various individuals who do not have other offices available to them. They usually offer varying degrees of membership. Julia told me, "It really depresses me that my institution has no space for me to do that. It really pisses me off to use my own money for it but it's been worth it." Anna also found she had to "spend hours working on the weekends just to get everything done."

Thirteen participants tried to work during their baby's naptime; however, some, like Ellen, found out quickly that "naps are unpredictable." Bonnie found that despite her best intentions to work during her baby's naptime, "it was very frustrating because 20 minutes later, she's screaming and wailing and she just wouldn't go back down. I would spend the next hour trying to get her back down but she refused." Vanessa was also frustrated trying to work during her baby's naptime, telling me:

> You're dependent on your kid sleeping and if your kid doesn't sleep very well like mine, you're getting really frustrated. You'd just get started, you'd be sitting

> there like ‘writer’s block, writer’s block, writer’s block…Oh! Here it is!’ and then as soon as you’d start going, he’d wake up. That was really hard!

Child care seemed to be the most helpful solution for mothering students to be able to get their work done and focus; however, it should be noted that many did not have access to or could not afford child care and this had a negative impact on their ability to get work done. Several participants who were able to utilize child care pointed out that the only way they were able to afford child care was because their partner was working full-time and able to pay for it.

INSTITUTIONAL SUPPORTS

Assistantships, Tuition Waivers, Stipends, and Health Insurance

One way that universities often provide institutional support for their students is through assistantships working for their departments or universities. Typically, a small stipend is awarded to students for their work, but the work is supposed to be viewed as an apprenticeship or internship where students gain valuable experience as either a teaching assistant, a research assistant, or the instructor of record of courses. Some universities also offer health insurance to students with an assistantship, some fully cover the cost of health insurance just like they often do for faculty members.

The majority of participants, 47 (94%), worked for either their department or university through an assistantship at least part of the time and received a small stipend; one participant (2%) worked full-time at her university, but volunteered as a TA to gain the experience; two participants (4%) worked solely outside the university; two

participants (4%) began with assistantships and then left for full-time employment because they could not afford child care on their graduate assistant stipend; and five participants (8%) had an assistantship at their university and worked for an outside employer at the same time.

Table 15. Work Status During Pregnancy

Work Status During Pregnancy	**Number of Participants**
Assistantship	47 (94%)
Full-Time Employment	3 (6%)
Began with Assistantship but found Full-Time Employment Due to Child care Costs	2 (4%)
Assistantship and Outside Employment	5 (8%)

Universities gave tuition waivers to 38 participants (76%) in addition to their assistantships, although it should be noted that not all of them received full funding their entire time and a couple only received partial tuition coverage. Several participants also held prestigious fellowships or external funding such as NIH grants that covered their tuition but would have received a tuition waiver from their university if they had received an assistantship.

Some universities gave full or partial health insurance coverage as part of the benefits package; 31 participants (62%) received these benefits. Several participants

received full-coverage that did not cost them a monthly premium. Lena told me about her fantastic health care coverage:

> There has never been a premium for health insurance for graduate students. I paid nothing. I paid nothing for either of my pregnancies. And that was part of the reason that we made the decision to have our kids while we were both in grad school, rather than waiting until I was on the tenure job. There were a number of different reasons for that, but health insurance and having access to an excellent university hospital was one of the reasons.

Carol and Elizabeth had their dependents and spouses fully covered on their insurance as well. Four participants received health insurance through outside employment, but Maria and Marsha specifically mentioned their health insurance would not have been covered even with an assistantship. The husbands of six participants carried the participants on their insurance policies. Claire, Allison, and Anneliese, mentioned that their university sponsored insurance only covered the campus doctors, which, for Claire, would have meant a two-hour commute by train to give birth so she switched to her husband's insurance. Anneliese kept her student insurance but also took advantage of her husband's policy because it was better insurance. Sheera, Cecelia, and Lauren all lost their health insurance when they took a leave of absence after the birth of their babies and other participants mentioned elsewhere that they specifically did not take leave after the birth of their child because they needed to keep their health insurance. Several universities required student health insurance in order to receive a tuition waiver; three students, Maddie, Patty, and Summer, stated that they were required to have the student health insurance--it was mandatory with their tuition waiver, but they also had to

pay quite a bit for it. This was frustrating for Summer who pointed out that she was not allowed to show that she had obtained outside insurance through her husband's job; she was required to have the student insurance anyway. Additionally, Summer was frustrated that though she was required to have health insurance through her university, they did not allow children to be added to the policy:

> It's one thing to have an insurance in place for undergraduates who are predominantly going to be traditional students in their early 20s, but by the time I was a grad student, I had owned a house. I had had a job outside of undergrad. I felt like I had entered my adult life and then regressed back into being stuck in the eyes of the university as an undergrad for another many, many years. I finished when I was 30. I was still being treated like a young adult at best. Sometimes it felt like a child. Treat grad students like they are adults in a career instead of students, because it kind of bridges those two things. Have some kind of employee policies in place that give them some kind of leave, some kind of flexibility, and some kind of insurance options to make sure everybody's getting covered.

Tuition waivers are one way that universities can remain competitive and attract top graduate students that will then bring prestige to their departments. Plus, not worrying about having to pay tuition or take out loan money in order to cover tuition costs helps graduate students keep their focus where it should be--on graduate school. Patty pointed out that her need to take on additional jobs has meant taking longer to obtain her degree.

Meg eloquently sums up this topic:

> I graduated with my MA in 2004, and I got full tuition for three classes a semester, and I made $1,500 a month, and I taught one class. Now I'm in a PhD program and the maximum award that they give to anyone is just two classes for 20 hours a week of work, and these students are getting $1,000 a month. That is not livable. It's certainly not livable if you are a working person, you have a family. I mean, it's not livable if you're living at home with your parents. In 2004,

> I could live on $1,500 a month on the economy in [state] as a student, and this is how many years later and they're paying basically a fraction of that, and you can imagine my shock to find out that they've only been getting partial tuition waivers. You're expecting people to pay you to be your doc students? How are you going to build a program? What do you want to have, just a huge pile of undergraduates? No wonder this place is a mess. It's ridiculous. Focusing on undergrads is just an upside-down ... The undergrads will come. They will come whether you focus on them or not. You realize [my university] has a dismal graduation rate, like 35% of the undergrads graduate in four years, and only 50-something percent in five years. Essentially no one graduates, so then you have your faculty spinning themselves into a fever, putting their efforts into students who aren't even finishing their degrees, versus having them actually work on research, which is what they allegedly want to do, investing in grad students who can deliver their instruction just fine to the undergraduates, who are going to pay no matter what. The structure doesn't make any sense. Be choosy, get the people you want, install your graduate students, support them fully, give them a living wage, pay their tuition, and actually do some research with them. It just boggles my mind. If you have a university like [mine], who wants to be a quote-unquote, "Research University" Now, mind you, I bet over in the sciences and engineering, with all of that Valero money, things are probably very, very different, but with the scraps in the humanities, it's a shit show.

Pregnancy & Postpartum Accommodations

Participants were asked if they were given any accommodations while pregnant or postpartum and their answers reveal many areas where universities and graduate departments could do better at supporting their pregnant and postpartum students. Accommodations were not asked for or not needed for 25 participants (50%). By far, the most asked for and wanted accommodation was closer parking both while pregnant and postpartum. This is because of the difficulties getting around while pregnant and having to walk long distances across campus, especially by those experiencing mobility issues, and then also during the postpartum period because carrying a breast pump across

campus was difficult. Sixteen participants (32%) mentioned the need for closer parking or the allowance of disability parking for pregnant women as something that would have been helpful during their pregnancies; however, just six women (12%), received parking accommodations and some of them had to fight hard for those accommodations. Clara was frustrated that student parking was at the bottom of a very large hill that she had to walk up every day to get to her classes; however, the disability parking permits on her campus were between $500-$700 per year. She attempted to get paperwork from her midwife to allow the closer parking but the midwife would not sign the paperwork since Clara was not on bedrest. Becoming increasingly frustrated, Clara contacted the parking services office again, only to once again be told no. By this point, Clara was concerned that she might fall on the hill so she contacted a center on her campus that was dedicated to gender equity. Shortly thereafter, Clara received a call from the Parking Director who agreed to allow her to have a disability parking pass for the current and following semester when Clara would be postpartum. Vanessa, Diana, and River all mentioned pelvic pain after walking in from the student parking; however, River was the only one able to obtain disability parking. Several participants, such as May and Ann, also mentioned the snow and icy weather as being a fall risk for them while trying to walk across campus, especially during a time when their balance was already compromised from the pregnancy.

Louisa's experience, while isolated, is an important reminder of the need to train faculty on the needs of pregnant and postpartum students and to support their needs. Louisa was required to sit for a four-hour online proctored exam when her baby was only two months old. She wanted to be proactive and contacted the professor of the course ahead of time to explain that she was a new mother who would require nursing accommodations during the exam and the junior professor "freaked the heck out" and accused Louisa of sexual harassment for "talking about breasts." Louisa was frustrated that the faculty member put it on her to call the proctoring company, "I had to talk to like four supervisors--and this is a huge company" and still, the day of [the exam], while turning away from the camera to nurse her baby (her husband was outside the testing room to bring her the baby to nurse as needed), the proctors insisted she turn the camera around so they could make sure she was not cheating. Louisa refused. Even though her total time spent on pause nursing was over an hour during the exam, the clock still ran for her the entire time, leaving her with less than three hours to complete the exam, while her classmates received four hours. Louisa was also frustrated that she received a C in that class, the only class of her entire graduate career in which she did not receive an A. Louisa's needs as a postpartum and nursing student were ignored by her university and the proctoring company. She faced discrimination that was gendered in nature, first by being accused of sexual harassment by her professor when asking about nursing accommodations and then when made to take her exam in less time than her classmates

because her professor and the proctoring company refused to accommodate her. The lack of institutional support in this case, in terms of accommodating Louisa as a nursing mother and allowing her the protections she is afforded as a student under Title IX, impacted her success and her grade in the course.

Ann's story was also fairly unique among my participants but I have heard similar stories in my more informal discussions with other graduate student mothers. Ann began bleeding heavily during her pregnancy, in addition to having high blood pressure, and being in extreme abdominal pain (discussed more under Pregnancy Health). Ann's doctor gave orders for bedrest, meaning Ann was unable to attend her classes. Ann contacted the disability office at her university but was told pregnancy was not one of the more than 50 conditions covered by the disability office and that she must be able to provide a *reason* for her bleeding, not just a note from her doctor saying that her heavy bleeding meant she needed to stay home on bedrest. Ann was distraught because there was just no way to know *why* she was bleeding--it could have been any number of reasons. Ann recalled:

> I started crying and I'm like 'I can't tell you why I bled,' and it was mentally...that was a very hard thing for me because I wanted to know why it happened. I wanted to know that it was just a busted blood vessel or something. I was constantly worried it was something that they haven't found, so that just made it worse.

Ann was asking to have the lectures for her courses recorded and sent to her so that she could listen at home and keep up with her courses. Her university denied her that

accommodation because on that particular campus, pregnancy is not one of the more than 50 conditions that are protected and served by their office.

Thankfully for Ann, her professors were willing to work with her and make the accommodations in an unofficial capacity. Eventually, the Title IX lawyer at her university contacted Ann; Ann felt like the lawyer was trying to smooth things over by more or less telling Ann that the accessibility office had "overstepped...or under-stepped, however you want to look at it, their bounds, and were kind of feeling nervous."

Maternity Leave. There were 55 pregnancies during graduate school reported by the 50 participants. Six participants (10.9%) took an official maternity leave, while eight (14.5%) took a leave of absence, five (9%) had unofficial accommodations from their department, twelve (21.8%) timed their postpartum period to occur over a break or while they were on a fellowship, six (10.9%) hid their baby in their dissertation. There were 14 participants (25.4%) who had no leave at all, and four (7.2%) had online accommodations but never got any sort of break.

Table 16. Maternity Leave

Maternity Leave	Number of Participants
Official Maternity Leave	6 (10.9%)
Leave of Absence	8 (14.5%)
Unofficial Departmental Accommodations	5 (9%)
Timed to Occur over Break or on Fellowship	12 (21.8%)
Hid the Baby in the Dissertation	6 (10.9%)
No Leave at All	14 (25.4%)
Online Accommodations	4 (7.2%)

Of the six participants who took an official maternity leave, three received paid leave and three received unpaid leave. Patricia's university allowed a flat paid eight weeks for students who receive a stipend while faculty members only get six weeks for a vaginal birth and eight weeks for a C-section. Elizabeth also received eight paid weeks and ended up getting an extra two weeks because it was the last two weeks of the semester so they did not make her return. Claire was able to take a semester of paid parental release in addition to her year-long fellowship. Clara and Daisy took unpaid leave, with Clara taking five weeks off and then working from home for two weeks after that, and Daisy taking six quarters off from the program.

Leave of Absence. Eight participants took a leave of absence from school in place of a maternity leave, such as Maisie and Sarah who both took off an unpaid semester. Jean also took a leave of absence, although she could have taken a maternity leave. Her advisor hired her as an emergency hire as a research assistant and the semester she took off did not count against her time to degree. Lauren took an unfunded leave of absence with her first pregnancy for one full quarter. Cecelia also took a semester off and lost access to all benefits, including the library. May took an entire year off, in part because she knew that she could not afford child care on her stipend, but in so doing she lost all access to her health insurance and the library, etcetera. as well, but the year off did not count towards her time to degree.

Sheera took medical leave for one semester, noting that this stopped her stipend and her health insurance, but not her time to graduation. Sheera also pointed out that thankfully she was able to transition to her husband's insurance but was alarmed at the thought of what would have happened if she was unmarried or did not have access to insurance through her husband.

Unofficial Department Arrangements. Five participants made unofficial arrangements for leave with their departments. Chloe worked it out with her advisor to take the last 3-4 weeks of the semester off and then to start back up later in the summer; however, Chloe and her advisor "broke up" and she ended up with a new advisor and took off roughly six weeks. Diana said that she was supposed to be able to negotiate two

weeks of paid leave in her department and while she was able to negotiate "leave," no one ever actually stepped in to help her so she still had to complete all her work for the courses she was teaching, "so maternity leave was kind of a farce." Anna took six weeks of paid leave, which she credits to a new woman professor who did a lot to change the culture of the department. Sophia's story is perhaps one of the most frustrating because she should have been able to take six weeks of paid leave according to university policy but neither the human resources person or department head was aware of how the six weeks paid leave would work on an 11 week quarter system. Moreover, neither looked into it further to ensure that Sophia received the paid leave she was entitled to. Instead, her department chair offered to let her take the Fall quarter off from teaching and teach three courses each during the Spring and Summer quarters instead of the usual two courses and she would keep her stipend for the whole time. Sophia later found out, after taking both of her maternity leaves this way, that she was entitled to six weeks paid leave and had the option to take the remaining five weeks off unpaid. While Sophia felt like her department chair "had his heart in the right place," she also pointed out that he, along with the human resources person, were uninformed about what her rights and options were and because no one in her department was educated about what her rights as a pregnant student were, it put her at a disadvantage.

Birth During Break or Fellowship. Twelve participants did not take time off because they either had their babies at the beginning of a school break so they did not need to take time off or were on a fellowship and did not need leave from the university.

Lauren was on an NIH fellowship, which has a policy regarding parental leave. It states students can have 12 weeks of paid leave or whatever their university offers to graduate students, so Lauren was able to take advantage of that and have twelve paid weeks. Lena took advantage of both summer break and fellowship funding for a total of 12 weeks of leave with both pregnancies. Claire timed her leave so it coincided with her dissertation fellowship and also took advantage of her university's parental release so she "didn't have any obligations apart from writing my dissertation and having a baby."

Ann took the entire summer off aside from keeping up with the little amount being done in the lab, and Stephanie's baby was born at the beginning of June so she took the summer off. Miriam went on short-term disability three weeks before her scheduled C-section and took another three weeks of short-term disability directly after the C-section, all of which were paid. She then took off for summer break and the Fall semester. Allison's baby was born at the beginning of summer so she did not take a semester of leave because even though it would have extended her clock by one semester, it would have also resulted in the loss of her stipend and health insurance.

Julia had her baby at the end of June and returned to her assistantship in September; however, she began interviewing people in coffee shops just two weeks

postpartum, and her husband stayed nearby with the baby so she could nurse the baby in-between interviews. After a few days of that, she spoke with a faculty member and gave away first authorship on the paper to get out from under the stress of having to interview with a newborn in tow. Julia's university made a mistake that resulted in the loss of her stipend and tuition waiver. She told me, "It was completely fucked. There are very few life events that would make you need your university to figure out how to give you a break and the fact that they couldn't do it without screwing it up so badly was horrifying."

Burying the Baby in the Dissertation/Thesis. Six participants had their babies while in dissertation or thesis hours, a practice sometimes referred to as "burying the baby in the dissertation" because the slowing of productivity is not as obvious during that time period. Rose timed it on purpose to have her baby while working on her dissertation, as did River. Yvonne received IRB approval for her dissertation just before the baby was born but gave herself two months off before she began collecting data. Marie was also able to take about two months off because she was working on her dissertation. Mary was not in coursework so her chair suggested that she go on break for a year, telling her, "Write when you can, and when you can't, it's okay." Julie stated:

> We talk about burying the baby in the dissertation. That's the strategy. I mean, in terms of that I feel like I'm taking a long time to finish but no one's going to question that time, whereas if I were in more of a 9-to-5 career and I just took randomly a whole year or longer off to be with my newborn, a lot of eyebrows would be raised about that missing time on my resume. But here it's just part of the dissertation and so, you know, that's been really useful but it's also really

> difficult trying to still feel connected to an academic home and carving out time to do my work. Especially when he was really young was nerve-wracking. I talk about how wonderful that first year with him was, but I spent a lot of that time panicking as well about my work and whether or not I was going to get anything done, and how I was going to get things done.

No Leave. Fourteen participants were either unable to take any leave or were unaware that leave was an option for them. Katherine did not know there was a leave policy with her first baby, and found out later that she was entitled to two weeks because she became friends with the union steward. She pointed out that the union was not doing a good job of getting the word out since she still would not know if not for her friendship with the union steward. Jane was unable to take any sort of leave, and did not even attempt to, because her F1 visa required that she be continuously enrolled in school except for the summer in order to stay in the United States. Meanwhile, Helen told me that while she was not in the office for 13 weeks after her baby was born, she did take three exams on top of writing her master's thesis while also working part-time from home. Maria did not take leave and returned to classes 11 days after having her daughter, noting that she was exhausted but there did not seem to be any information available to her about whether any sort of leave was even available to her. Ellen continued on with her research assistantship with no break and Julie, Summer, and Kim also had no leave.

Maddie returned to work a week after giving birth, taking her baby with her so she could nurse him. While Maddie was not eligible for any leave, Maddie's mother was

eligible for eight weeks of paid leave to take care of Maddie. Maddie's partner, who lived out of state at the time, received a semester of parental leave.

Zora's situation was unique, and especially frustrating for her as she somewhat fell through the cracks with no safety net. When Zora was first admitted to her program, she had a four-year package that included a TA-ship every year and full funding. However, Zora's department encouraged her (and other students) to seek external funding such as fellowships for so that the department would have "bragging rights." Zora received a prestigious fellowship which gave her funding for three years. Zora still had external fellowship funding for the first year of her son's life which was fortunate because with his major health issues, she was unable to leave him. "He had two surgeries, he was nursing and refused to take a bottle, he did not eat solid foods for a long time, so literally, I could not leave him. Once my external funding ran out, I had no income. I couldn't TA and my fellowship was up, so I just had no money and no way to pay for school." At her university, TAs are treated as employees and they receive benefits; however, Zora was ineligible for those benefits because she was not a TA while funded through the fellowship. With everything going on with her son, who was in and out of the hospital, and without an income source, Zora missed a payment to the university and they withdrew her without her knowledge. She went to apply for a leave of absence and was informed that she had not been enrolled the previous quarter, and then shortly thereafter, found out that being withdrawn had also caused repayment to begin on her student loans.

Zora went to her department to ask if she could use the three years of funding that she had leftover that she was awarded upon admission to the program but was told no and remained withdrawn for nearly a year. Zora vented her frustrations: "I felt like I was penalized for winning this competitive national fellowship because now I can't access any of the funding that I was awarded from the beginning. So, basically, they never had to support me except for that first year." While Zora continued writing her dissertation during this time, despite no longer being enrolled in the university, it is worth noting that this meant she had no access to the library, to her advisors, to her healthcare (especially with her special needs baby), and that for many women, this scenario might have played out differently and resulted in them dropping out.

Bonnie told me that the only leave she could have taken was disability leave, which would have cut her stipend and health insurance:

> If I took leave, I wouldn't have health insurance and I wouldn't have money, so I couldn't take leave. I went back at three and a half weeks postpartum, I was still bleeding very heavily. But my advisors told me that if I didn't come back, they're not going to save my spot in their lab, so I had to come back. It was terrible. I was commuting on the subway. On the train, I was always bleeding so I had to bring a change of pants in case I bled through. I had a lot of back pain because I didn't heal from the pregnancy yet but I was being forced to work. I couldn't leave or I'll be cut off my health insurance and they'll cut off my stipend.

Online Accommodations. Four participants completed their work online, whether that was teaching related or coursework related. With her second pregnancy, Katherine moved her course online for the remainder of the semester, but did not get any time off. Vanessa was moved to an online course that began when she was two weeks postpartum

and allowed to assist a fellow graduate student who let Vanessa wait until the end of the semester to begin grading. Marsha took all online courses that semester so she was able to finish out the semester online. Meg's class was an in-person course but she was able to get her fellow students to help her Skype into the class and listen in.

Returning to Work and How They Were Feeling

Participants were asked when they began working again, either for their assistantships or returning to work on their academic work, and how they felt at that time. These answers will be combined for each participant but I have broken down their answers separately for how soon they had to return to work and/or school and how they were feeling at the time. Some participants answered for more than one pregnancy so there are 55 answers, therefore, percentages will be calculated using the 55 responses.

Table 17. Time to Return to Work

Participant Returned to Work	Number of Participants
Less than One Week	6 (10.9%)
One Week	9 (16%)
Two Weeks	11 (20%)
Three Weeks	3 (5%)
Four Weeks	1 (1%)
Six Weeks	3 (5%)
Eight Weeks	9 (16%)
Ten Weeks	2 (3%)
Three Months	3 (5%)
Four Months	2 (3%)
Five Months	1 (1%)
Six Months	1 (1%)
Seven Months	2 (3%)
Nine Months	1 (1%)
One Year	1 (1%)

Eleven participants (20%) returned to work at two weeks postpartum, six participants (10.9%) returned in less than one week, nine participants (16%) returned in one week, three participants (5%) returned in three weeks, and one participant returned in four weeks. This means 30 participants (54.5%) returned to work in less than the typically accepted six-week recovery time from childbirth. Only 25 participants (45%) were able to take at least the six-week minimum that is typically recommended to recover from childbirth; three participants (5%) were able to return at six weeks postpartum; nine participants (16%) were able to take eight weeks off; two participants (3%) took ten weeks off; three participants were out for three months, two participants took four months; one participant each took five months, six months, nine months, and one year; and two participants (3%) took seven months before they returned.

When asked how they felt when they returned to school/work, only 2 participants (4%) stated they felt good, 34 participants (68%) felt what I perceived to be somewhere in between good and bad, and 14 participants (28%) felt what I perceived as fairly badly.

Feeling Good. Claire, who began working on a revise and resubmit for an article when she was just two weeks postpartum, was one of two participants who seemed to feel relatively good about returning to work, telling me:

> I enjoyed working. I was not especially unhappy as a new mother, but it was very overwhelming. The times I would go back to doing some work, I felt like analytic philosophy was so much more predictable than a newborn. My confidence in myself in [academia] was much, much higher than my confidence was in my ability to look after him.

Amy did not take any sort of leave, telling me that she has a picture of her working on the computer with the baby in her lap when he was about a week old; however, she was also one of the participants that felt good, telling me, "I was feeling good. I was healthy. I felt positive, I felt excited about the new baby." These two participants both had very short periods of time before they returned to work so it is somewhat surprising they were feeling that good about going back; however, all women recover differently, even from each individual birth.

The majority of participants, felt somewhere in between good and bad, or, what I termed 'so-so.' Of the 34 participants who felt somewhere in the middle, many faced various issues that made their return difficult, including stress, exhaustion, postpartum depression, anxiety, guilt about leaving their babies, feeling overwhelmed, worries about child care, pressure to complete their dissertation quickly, inability to afford child care, and thus, inability to complete their work, isolation, trying to juggle watching the baby all night and staying up writing all night, breastfeeding and pumping issues, including mastitis, complications from preeclampsia and high blood pressure, struggling to complete schoolwork, and being able to lecture while dealing with sleep deprivation.

Feeling So-So. Anneliese gave birth on the first day of classes and sent out announcements and emails to her students while she was in labor and having contractions one minute apart. Anneliese told me:

> It is pretty ridiculous that that even had to happen. I do not blame my department, I don't even necessarily blame my university, it's just the culture of academia. It

> goes all the way down to how we treat adjuncts and how we treat the lowest rungs that actually see the most students and do the most work in academia in terms of teaching and reaching undergrads but they don't have the protection in place that workers in other fields do.

Rose had no maternity leave and worked non-stop while struggling with postpartum depression, telling me:

> There was definitely the pressure to get things done because I did not get as much work done while I was pregnant as I hoped. It was always hanging in the back of my head that I needed to get this dissertation done because I really did not want to stay in school an extra year. I really wanted to finish but emotionally I was just still feeling that burden.

Katherine also had no leave and returned to teaching right away and said of the experience, "I was really, really tired and it was a huge challenge and just really hard to lecture or remember your train of thought when you're seeing stars 'cause you're so sleepy." Helen had an abstract due the week after her baby was born and exams to take at three weeks, four weeks, and five weeks postpartum. The exams were four hours long so Helen's husband sat outside with the baby so that Helen could nurse the baby just before and just after the exams.

Louisa took two weeks off from classes but was dealing with some major Post-Traumatic Stress Disorder (PTSD) symptoms when she returned because she was still mourning her miscarriages and the birth of her "rainbow baby" brought back all those feelings. "Rainbow baby" is a term that refers to a baby born after a pregnancy loss, miscarriage, or infant death. Bell returned to work at 6-7 weeks postpartum and stated that she was exhausted but had also been feeling so isolated that she was happy to be

around people again. Emmy took a semester off but because her baby was born prematurely and was still medically fragile. She was very nervous about returning. Maisie was set to begin working again after two months off when I interviewed her and was feeling conflicted about returning to school. Maisie told me:

> Part of me is looking forward to being able to use my brain again, to make some progress on the dissertation, get in touch with my identity as a scholar, which I feel very much out of touch with since I had him. It's gonna be an adjustment cognitively because I feel like my brain is mush at this point, and it's gonna be challenging to really try to get myself back into the work with any sort of regularity or intensity, and trying to balance that with taking care of the baby will be very challenging.

Summer wrote grants at home directly after the birth of her baby and returned to teaching after two and a half weeks, as soon as her urinary incontinence she had suffered from since delivery resolved. Yvonne returned to work and school a little before the three month mark but struggled with her lack of child care. She "was always mothering during the day and writing at night and it took a toll, because that creates distance between your yourself and friends and family. There were definitely times when it was tough to keep all the balls in the air." Meanwhile, Clara spent five weeks working from home and then dealt with mastitis and painful leaking breasts when she returned. Allison began trying to write again at four or five months postpartum but struggled with trying to "cobble together" time to write while the baby slept. Allison mentioned difficulty finding child care on $18,000 a year, noting that despite her university having two daycares on campus, it was still unaffordable with the small stipend she was paid. Anna took her baby

to the lab with her to work when he was only one week old, despite having a six-week maternity leave, "because I felt this need to prove myself, like, I have a baby but I still care about science. I still want to be here and I want to be doing this." Anna was still sore and sleep-deprived and dealing with a fractured tailbone when she returned to school.

Feeling Bad. Bonnie returned to work at three and a half weeks postpartum. Bonnie said:

> I was completely disoriented. I was sitting on the subway, my hemorrhoids still didn't heal and my back hurt too. I remember literally thinking "This is bad. I shouldn't be sitting here right now. And I was worried, stressed about my baby because she wasn't taking the bottle well. She was only two weeks old and I wanted to keep nursing her. I felt very conflicted, it was just very stressful. I wanted to stay with my baby...I'm talking to you about this, and I'm about to cry...I just wanted to stay with her [participant begins sobbing]. I wanted to stay longer with her, I just wanted to hold her a little longer but I had to go back. I remember that subway ride, I didn't want to leave her yet and I knew on that subway ride that I wasn't ready to go back, but I had to go.
>
> I remember walking in the lab, I picked up a coffee on my way in, and a second cup of coffee for my friend. So, I had two cups of coffee in my hands, and my advisors were like "Look at her! She's a model student, comes right back to work. Look at her holding two cups of coffee. She's ready to go!" and they praised that. I was just so ANGRY when they said it [participant is sobbing again], because it's just like "Why would you think this is fucking normal?!" I hated the fact that they used me as an example, because I was the most senior student in the lab at that time and they used me as an example to show everyone else below me, like, "Make sure you follow her lead. If you ever plan to give birth, you come right back and you're ready to work like she is." And when they made an example out of me, I took it and I was like, "Yeah, totally ready. Let's do it!" but inside, I was so angry, and I thought it was just so fucked up, you know? But I didn't do that because I just thought this is what I had to do to get where I wanted to go [participant is still crying].

Jane also still felt bad when she returned to school and work one week after she gave birth. Jane said:

> It was awful, the pregnancy and school just took a toll on me. My chest would just hurt so much and it would leak and your clothes end up having milk, and you're just feeling awful. That first couple of months were horrible. I wasn't able to pump because we only had a ten minute break and the professor was very specific about everybody being back in those ten minutes. Sometimes he wouldn't even take a break. It just wasn't good for my situation because I needed to pump and I had to go to the bathroom to check if I leaked too much milk so that it won't get onto my clothes.

Unfortunately, the stress and the lack of pumping time that Jane experienced may have had a negative impact on her milk supply. Jane told me:

> It was empty all the time. I think if I were able to take care of myself in the first couple of months after the delivery, I would have had a higher milk supply. And that took an emotional toll on me too because I was like, "I can't even be at home with my kid, I'm not enough. And I can't even feed them because, again, I'm not enough, I don't have enough milk. Oh my God, it really sucked, it seriously sucked.

Julia began interviewing participants at two weeks postpartum with her baby in tow. Julia told me:

> I just felt so overwhelmed. I was just trying to keep my head above water and not questioning anything, I was feeling like this was not sustainable. And my husband was like "this is not sustainable." I feel like if I had had a mentor...just the feeling of survival mode was so intense those first few months.

Maddie returned to work and school one week postpartum and really struggled. Maddie told me:

> It's kind of sad when you feel like you miss those very first weeks because everything is just so fucking chaotic. I was pumping colostrum when I was still pregnant to freeze it. I was pissed off and I'm grateful that my mom got leave and

> that my partner got leave but I'd also get pretty pissed off about that too. I just wanted to be home with my baby, that's what I wanted to do.

Maddie took her baby with her for a training thing that she was told was mandatory, and expressed her anger at the situation. Maddie told me:

> People in the department fuss at me and be like, 'you shouldn't have him out of the house!' and I'm like, 'What the hell do you want me to do?! I agree! I should be at home resting! WE should be at home resting! That's not our reality.' I shouldn't have had to go. On the one hand, I know I got a ton of political capital by showing up. No one questions my dedication to my work but also, I didn't need to be there. It was one of those things where it could have been a fucking email.

Stephanie took her courses online but could not take any time off after the birth of her baby. Stephanie told me, "I wish I had planned that better because it was overwhelming and difficult. I was not mentally or emotionally ready for all of those changes at one time."

Diana began working again when her baby was six days old and was "dazed, overwhelmed, and getting two hours of sleep a night. I was in a pretty horrible state overall, I just couldn't handle this and it seems like a nightmare." Kim returned at two weeks, and "felt completely overwhelmed" and struggled with only being able to write in little chunks of time because she had to nurse her baby every two hours.

Sophia went back after about two and a half months and had to teach three sections during the winter quarter: "That quarter I just remember being absolute hell. I didn't have a single minute off during the workday that whole quarter. I was either

pumping or sitting in lecture for the class I was teaching or holding office hours or holding sections. It was absolutely horrible."

Julie took an unpaid semester off but still worked on her dissertation during that time. Julie told me:

> Those months after my son was born, it was really rough. I was really bleak about it and close to dropping out that summer. I felt like there was no time, I was exhausted, I couldn't even read anything. My husband had his job he had to go to everyday so anything domestic basically ended up falling on my plate, so I was taking my son to physical therapy three days a week which meant an hour each way on public transportation with a newborn. That was really time consuming, plus doing exercises with him at home.

Daisy was about three months postpartum before she began to work again. Daisy told me:

> I still haven't fully been able to focus on it 100%. I was exhausted and drained but I had to keep going or I'm going to get kicked out of school. I kept trying to make incremental progress, and fortunately, I have a husband who makes the bulk of the money so I'm able to stay home while he supports us. I do realize that is incredibly privileged and that is not the case for most.

Miriam registered for a course that met once a week when her twins were seven months old and she struggled during that time. Miriam told me that she was still nursing her twins to sleep every night but on that night each week, her husband put the twins to bed by himself:

> It was so hard, I remember running out, the class started at 7:00 PM, at like 6:52 PM, running out jumping in a cab, being late, crying, showing up 20-30 minutes late because we couldn't get them to sleep. I vividly remember my day, it was a freaking disaster. I couldn't put together a coherent sentence. I had slept in two hour chunks, I mean, I really hadn't slept in like eight and half months. I was just mad at myself because I felt so stupid and my advisor really had to step in, I just

> couldn't form a sentence 'cause I'm so tired. And pissed off that none of the men in the room ever had to do this. This was not how I wanted to represent myself but I just couldn't get it together to do anything different right now.

Ann took two full months off but told me that the first month she was in so much pain that she was in a pain medication fog for most of it. When she returned, she was still worried about how sleep deprived she was and how much pelvic pain she still had, "I was also worried that the pelvic pain was never gonna go away 'cause it lasted a long time."

Cecelia went back at four weeks postpartum and felt incredibly guilty:

> I felt guilty wanting to leave, I felt guilty because I did, for not leaving, everything made me feel guilty. Going to class for the whole day, leaving before I ever got any time with her in the morning and then I would pick her up, she would be crying the whole way home because she's so tired. I had no time with her so I was constantly feeling guilty.

Patricia was still dealing with postpartum depression and recovering from a C-section, "I didn't want to go back to work at all. Eight weeks was a blessing and it still wasn't enough."

Campus Child care

Another method of institutional support that can be helpful to graduate students who are also parents is to have some sort of child care assistance available to them. There seemed to be three common options on the campuses that had child care assistance for their students: on-campus child care centers; a child care stipend to help offset the cost of child care; and emergency child care.

On-campus child care centers were available for 31 participants (62%); 7 participants (14%) had access to a child care stipend; and 3 participants (6%) had access to emergency child care.

Table 18. Access to Child care Assistance

Access to Types of Child care Assistance	Number of Participants with Access
On-Campus Child care Center	31 (62%)
Child care Stipend	7 (14%)
Emergency Child care	3 (6%)
None	9 (18%)

Unfortunately, the options offered were not that helpful for them. Out of the 31 participants with access to on-campus child care, 16 (50%) stated that the waitlists were too long. Sarah waited 10 months on the waitlist before she was able to enroll her baby, as did Patty, and Ellen waited 11 months. Several others reported that the waitlists took years. Jane spent four years waiting for a spot and they called her with an opening after she had already left the school and moved to another state, while Sophia is still on the waitlist at her institution, four years later. Affordability was another barrier to accessing the on-campus child care centers; nineteen participants (38%) stated their on-campus child care centers were too expensive and unaffordable for most graduate students given the small stipend amount they received. May's university daycare charged $1,500 a

month per child but May's stipend was only $1,000; Lauren's campus charged $2,300 a month per child. Patty, River, and Sarah stated the only way they were able to afford to place their children at the campus daycare is because of their husband's salaries; Sarah and River's campuses charged $2,000 a month per child. Ann and Maddie's campuses charged $1,000 a month, Yvonne's charged $210 a week, and Amy's charged $100 per day. Maddie mentioned that undergraduate students got sliding scales based on income and had tuition scholarships for their children, but graduate students were not eligible.

Table 19. Access to On-Campus Child Care versus Usefulness of On-Campus Child Care

Access to On-Campus Child care	**31 out of 50 Participants (62%)**
Wait List Too Long	16/31 (50%)
Too Expensive	19/31 (38%)
Only Took Toddlers (2+)	6/31 (19%)

Only a handful of participants reported that their on-campus day care offerings were affordable, such as Mary. She was the only participant out of the 31 with access to on-campus daycare who did not find fault with it somehow. Mary stated her university's on-campus daycare was "decent and affordable." Louisa found most graduate students qualified for free or subsidized daycare at her university, if they made it off the waitlist, and the center prioritized graduate students over faculty and staff. She was also a part of "this underground group of us in the mom's group and we'll help you fill out your

paperwork so we can make sure that you get it because it can be very tricky." Chloe's campus offered a scholarship fund for students that paid 50 percent of the tuition for the on-campus daycare. Students were prioritized over faculty and staff; there was a sliding income scale that determined what they paid. Chloe only paid $350 a month; however, she also ran into the problem that six other participants (19%) experienced, that the on-campus child care center only took children ages two and up, leaving those with infants without options. Allison had the same issue, noting that while the center was subsidized based on income level, it was also only for kids over two years old. Jean's campus also only allowed kids aged two and up, but she stated that their campus had a subsidized graduate student child care co-op for kids over two where parent volunteers worked alongside staff members to help keep the costs down. Katherine, May, and Maisie had the same issue with the center being for toddlers over two and up. Most on-campus daycares only operated during the day, while most graduate school classes were in the evenings so the center was not helpful to some. Some of the centers required the child be enrolled full-time, but not all graduate students needed, or could afford, full-time care.

Seven participants (14%) had access to some sort of child care stipend or assistance with the cost of child care, including Bonnie, Laurie, Marie, Lena, Sophia, Lauren, and Josephine. Unfortunately, Josephine was unable to take advantage of that at her institution because she commuted in from another state and the stipend was only good at state-run daycares in the state where her university was located. Marie took advantage

of the stipend at her school, but noted that it was only about $250 a quarter so it covered less than one week of care for one child. Sophia explained that the child care stipend at her university was negotiated by the union, and therefore, only those with assistantships qualified. Unfunded students or those on fellowships could not take advantage of the $900 per quarter child care reimbursement.

Lauren's school offered child care grants for students who are single parents or whose partners are disabled, full-time students themselves, or are working full-time. The maximum amount was $5,000 per year and Lauren received it the first year. The second year, her husband was only working part-time, so she did not qualify. Lauren took action:

> I wrote to them and said, 'I'm not applying for this because I don't qualify, but I just wanted to say that's ridiculous. I don't know how much you guys think child care costs. Here is my family arrangement: my husband works three days a week, he's with our kid two days, and I'm supposed to be a full-time student those other three days, so we have to have child care for me to be a full-time student.' This year, they said you could apply if you have a part-time working spouse, and they actually gave me $7000, which was really fantastic! This is a really big way in which my university is supporting students.

The child care subsidy at Lena's university was processed through the Financial Aid Office and considered need-based and required reapplying every semester. If Lena received a grant, even if it was a research grant to attend a specific conference, the Financial Aid office would pull her child care subsidy, despite the grant money being specifically for that conference. Lena explained:

> I would have to go through this really time consuming process of sending them all of my utility bills, all of my research expenses. I would end up using a day and a half of my life to get them all of this stuff. It was really frustrating that the

> different offices in the university couldn't figure this out amongst themselves, it had to be me.

Perhaps one of the most underused but most useful modes of child care assistance was the emergency child care option that three participants had on their campuses. Louisa's campus has an emergency on-call child care for certain academic programs like medical students, dental students, etc. but it was not accessible for all students. Sheera and Laurie's schools had an accessible program. Sheera discussed the way it worked at her school:

> He got ear infections all the time, and so I couldn't send him when he had a fever. He got them constantly. You could call this line. I used it maybe four or five times a semester. They would send an emergency babysitter from the service to your house to cover the day. It only cost you, like, $2 an hour.

Laurie explained the emergency child care on her campus was a drop-in service that would take sick kids. The funding came from student activity fees and the university prioritized this program for funding because they wanted to help student parents graduate on time. Laurie notes that her university also holds regular classes for parents about nutrition, discipline, and other parenting topics. Between the on-campus daycares and preschools (even with their long waitlists), the child care stipend, emergency child care, and parental education classes, Laurie tells me, "It works like a student parent utopia!"

Child care Arrangements

Access to affordable, decent child care is important in a culture in which most parents work outside the home. For many of the participants, access to child care was one

of the main keys to their success. Some participants relied on family members to watch their babies and others, like Daisy, told me "I am the child care." As we saw in the discussion above on the availability of on-campus child care, access to affordable child care is important for graduate student mothers. Lack of access to affordable child care in the United States is widespread in our society and symptomatic of the lack of structural supports in place for families in America.

When examining the various methods of child care employed by the participants in this study, it is important to keep in mind that their circumstances and child care arrangements changed over the time they were in graduate school. Thus, many participants fall under more than one category. Likewise, some participants utilized a patchwork of child care options at the same time with the baby going to a sitter, staying at grandma's house a day or two, staying home with them a day or two, and being watched by their other parent a day or two a week. This should be kept in mind as I discuss the various forms of child care utilized by the participants.

There were 29 participants (58%) that enrolled their babies in a daycare facility at least part of their time in graduate school in order to complete their academic work; 13 participants (26%) enrolled their babies in full-time daycare; 9 participants (18%) in part-time daycare; and 6 participants (12%) began with their babies in part-time daycare and then transitioned to full-time care at some point. One participant switched in and out of part-time/full-time care depending on her needs for the semester, and one participant

enrolled their child in full-time daycare after the child turned three. Family was a big help for eight participants (16%) who relied on their mothers, mother-in-law, or parents to care for their babies at least part-time and eight participants (16%) reported that their partner or ex-partner watched their baby at least one day a week; one participant's husband was a stay-at-home dad; another participant's husband was a stay-at-home-dad for a while as well. Nine participants (18%) utilized either a nanny or babysitter; five participants (10%) used a nanny or sitter part-time and four (8%) used a full-time nanny. Lack of child care was a barrier for 14 participants (28%) who reported at least some periods of time where they had no child care. Allison said the baby "was spending a lot of time watching TV while I tried to just write as much as I could and keep him entertained." Some participants had to piece together childcare; five participants (10%) fell under "hodgepodge" or "patchwork" child care at least some of the time, such as Maisie who stated she used a "series of random babysitters" as she needed them; Chloe, who used undergraduate students for a few hours at a time, but never more than a four-hour stretch because of nursing, to cobble together fifteen total hours of child care a week; Allison, who had two different sitters that came for two hours a day a few days a week from the time her baby was six to ten months old; and Jean, whose baby went to each of the two grandmothers for one day a week, stayed with her partner one day a week, and is kept by Jean the other two days a week.

Table 20. Methods of Child care Employed by Participants

Type of Child care	Number of Participants
Daycare	29 (58%)
Full-Time Daycare	13 (26%)
Part-Time Daycare	9 (18%)
Began PT then went FT	6 (12%)
Switched from PT to FT regularly	1 (1%)
FT Daycare after 3	1 (1%)
Grandparents	8 (16%)
Other Parent (at least 1 day a week)	8 (16%)
Stay-at-Home Dad	2 (4%)
Nanny or Sitter	9 (18%)
Full-Time Nanny or Sitter	4 (8%)
Part-Time Nanny or Sitter	5 (10%)
No Child care	14 (28%)
Hodgepodge/Patchwork Child care	5 (10%)

Zora was one participant in particular who struggled with finding adequate child care for her son, who was born with Down syndrome and another rare disease that caused

him to have to have an ileostomy with a bag to collect his feces. Zora's baby also had two heart surgeries shortly after birth. Because of his special needs, Zora found it pretty much impossible to find care for him once he was finally home and stable. Additionally, the low wages that Zora received and the eight therapy sessions she had to take her son to a week, have made it very difficult for her to obtain child care and be able to complete her academic work. Zora said:

> That's one of my biggest beefs is that there are not daycare centers that support children with special needs. A lot of the places that claim to really can only accommodate mild learning differences or speech delay. But if your child has a medical device or they're significantly delayed in something like walking or eating, I didn't find any schools that my son could go to, even schools that claimed to be special needs schools. This has been the single hardest thing because I don't have full-time child care, but I have sixty hours of work I need to do a week. The minimum rate I've been able to find for any nanny is $15 an hour and that adds up to way more than I make. There were some semesters where I felt like I was just working for $200 because the class only pays $600 a month for the semester and I was paying the nanny $300 a month so it was like...what am I doing this for?

Zora's story highlights the struggles of having her identities of graduate student, mother, adjunct, and sole caretaker of a special needs child collide, and it also demonstrates the lack of a safety net that so many parents face.

Primary Caregiving

Participants were asked who the primary caregiver of their children was because it impacts how they are able to complete their schoolwork. When women are carrying the bulk of caregiving and the bulk of the household chores, it further complicates how and when they are able to complete their academic work.

Thirty-three participants (66%) reported they were the primary caregivers of their babies, 17 (34%) reported that they shared caregiving responsibilities relatively equally, and 3 participants (6%) reported that the other parent was the primary caretaker. These results reflect some overlap because sometimes the share of caregiving changed over time. There was also some relationship strain reported amongst some participants in relation to the balance of handling the day-to-day care of the babies.

Table 21. Primary Caregiving Responsibilities

Primary Caregiver	**Number of Participants**
Participant is Primary	33 (66%)
Shared Equally with Other Caregivers	17 (34%)
Other Parent is Primary	3 (6%)

Bonnie reported that she carried the bulk of the child care responsibility and told me:

> There was a lot of emotional and physical labor that I took on, which caused a whole lot of conflict. If you're the mom who is working full-time, plus you're taking on all the emotional and physical labor, and your husband is not helping out much...that was really hard. I went through a lot of marital conflict because of it. It was very frustrating.

Miriam also reported an occasional small amount of conflict over workload with her husband:

> Occasionally, we get in to spaces where I feel really frustrated and upset and he will listen and respond and make necessary changes to try and even the workload,

> so even though I wish he did more, I know that he does a lot and I'm very grateful for what he does.

Maisie hoped that when her husband got home from work, after being gone from 7:00 AM-7:00 PM, he would be able to take over with their baby so that she could get some work done, after having been home with her all day. Unfortunately, Maisie's husband was often too tired for that. Maisie was unable to get work done by the time she got the baby in bed because she was too tired. Sheera's husband traveled over 100 days a year so that left her being the primary caretaker, although she did say that when he is home, he does 50 percent of the work.

Seventeen participants (34%) reported they shared caregiving responsibilities relatively evenly with other caregivers. Sometimes those caregivers consisted of the other parent, sometimes the grandparents, and some felt as though their daycare provider was responsible for a large share of the day-to-day care of their babies. Emmy's baby was looked after by home health care nurses due to her medically fragile health for about eight hours a day and the rest of the time was split between herself and her husband. Laurie's mother lived with them and took on a large share of the child care. Maria benefited from her mom coming in from out of the country to take care of her baby for the first four months. The baby went to daycare after that. She told me, "I was hesitant and I felt guilty about doing this. Leaving my children with my mom was not much of a guilt making event, but daycare, that was a different story. I felt bad and started crying when I was leaving my baby in daycare, especially in the beginning, that was tough."

Louisa also reported feeling a lot of guilt about leaving her baby in daycare. Lena, like Bonnie, and to a lesser extent, Miriam, also reported relationship strain with her husband over the workload division, telling me, "We almost split up before we decided to have my daughter because I was so pissed at him. I was doing way more than I should've, and he was really grumpy all the time, and it was like, 'You need to fucking get it together, or we're not doing this anymore.'"

Mary, Claire, and Summer all reported that their partner was the primary caretaker although Claire said she was initially the primary caretaker. Claire also told me that she feels like she is a "terrible wife" because she is "more worried about getting my work done than I am about doing the laundry or keeping the house clean."

Whether or not they are responsible for the primary care of their babies plays a direct role in their abilities to get work done because if they are the primary caretaker, they often have little time to work on their academic work.

Pumping Facilities

Many new mothers return to school and/or work while still trying to breastfeed their babies and thus, need adequate support and appropriate space to be able to pump and store their breastmilk. As discussed under the section on "Postpartum Health," supporting nursing mothers by having proper lactation rooms set up on campus and allowing women time to get there is important. Only seven participants (14%) reported good pumping accommodations.

There are several requirements needed for a lactation room to be useful to pumping moms, including the following: a power outlet so they can plug their pumps in, a comfortable chair to sit in, a side table or coffee table so they can set their pumping equipment down and get situated, the ability to have a private space but also where the room can preferably hold multiple pumping moms at once (this can be accomplished using room dividers, cubicles, or hospital style curtains), a sink with hot water so they can wash their pump parts, refrigerator to store the milk in if need be (this can be a small dorm-size fridge). If the room is kept locked, it should have a key code pad on it so that students do not have to go out of their way to pick up a key, nor should they have to go "check-in" with someone before they are able to use the room. Further, lactation rooms need to be widespread across campus, preferably in every building. New moms have to pump every few hours so it is essential for their productivity and well-being that there are convenient lactation rooms that they can get to easily and quickly.

Pumping usually takes a minimum of 15 minutes. If the student is trying to squeeze in a pumping break during a 15 minute class break, they need to have a lactation room they can get to quickly and it needs to be in the same building. Carrying a heavy pump 15-20 minutes across campus and back means the walking time alone will take between 30 and 40 minutes. The student will then have to get the pump set up and ready, which probably takes five minutes. Pumping usually takes about 15-20 minutes and then the pump parts need to be cleaned so that probably takes another five minutes. Each

pumping session taking at least an hour is not conducive to being able to fit into a class break. Having to do this three to four times a day while on campus working, whether it be on classwork, grading, lab work, writing, etc., will quickly eat into her productivity. Participants also discussed many other barriers they encountered that impacted their ability to nurse their babies and remain productive. For example, Elizabeth spent four hours commuting on public transportation each day to get to and from campus so she stopped pumping.

Table 22. Pumping Accommodations and Barriers

Pumping Experiences, Places, and Barriers	**Number of Participants**
Exclusively Nursing	5 (10%)
No Lactation Room on Campus	5 (10%)
Less Than Ideal Place (bathrooms or offices)	7 (14%)
Walked to Car	2 (4%)
Waited Until They Got Home	6 (12%)
Borrowed Office Space	7 (14%)
Time Constraints with Lactation Room/Too Far Away	9 (18%)
Good Pumping Accommodations	7 (14%)

Among the participants who nursed their babies, five (10%) nursed exclusively, like May, who was unable to pump because her body did not react to the pump. This

resulted in May dropping down to part-time status and not returning to campus. May told me the following:

> I felt the choice was give up my breastfeeding relationship with my daughter and go back to being a full-time student or try to figure out a way that I could maintain my breastfeeding relationship and still be a student. It was one of the reasons why I didn't go back, because I have a really strong breastfeeding relationship with my daughter, I find this relationship really valuable and something that is a joy in my life and I don't want to drop that for being a full-time PhD student.

There were five participants (10%) that did not have access to lactation rooms on their campus, even though they needed to be able to pump. Daisy explained that there was a mother's group on her campus that had organized protests in order to get lactation rooms on campus the year before but there were still no lactation rooms on campus: "We still have to use someone else's office and ask for keys. What people end up doing is pumping in their car or someone else's office." Patricia also noted that her campus did not have any official lactation rooms, and Ellen expressed her frustration that she had asked both the department secretary and the female graduate student coordinator about pumping accommodations and was told "Oh yeah, we should really have a place for that. We don't have it. Sorry." Ellen told me, "It was really infuriating because I needed help. I was really embarrassed to ask for help and they were clearly aware I needed help and no one wanted to help me." Louisa encountered some issues while trying to pump on break in class because she did not have enough time to leave the building but she did not want to pump in the bathroom. Instead, she ended up using the faculty/student break room but

was interrupted and she noted, “that was probably not the best thing.” Bonnie also faced frustration when she learned that while her campus did have lactation rooms, they were only accessible to faculty members and not to students. The lack of available spaces for nursing mothers to be able to pump creates unnecessary barriers to success for students.

Seven participants (14%), reported that they had some sort of pumping accommodations but they fell short of what they needed and ultimately weren’t that helpful. Josephine reported that she never attempted to use the lactation rooms on her campus because she would have had to email the facilities person and then go pick up a key: “I don’t know, it just didn’t seem easy to use.” Maisie was not pleased that graduate students in her department typically pumped in their shared cubicle spaces where three or four graduate students were assigned at once, “Which is not ideal at all. You can walk into the hallway and you can hear the breast pump. When people are pumping, you see the sign on their door, ‘Pump in Privacy, Please.’ So, it’s definitely not an ideal situation.” Maisie asked the office staff in her department if there were other options and they told her that she could reserve a room whenever she needed to pump; however, trying to reserve a room on a day-to-day basis and for multiple pumping sessions proved to be too much of a barrier for Maisie.

Mary said that with her first baby, she had to pump in the bathroom because there were no other facilities for her to use. Lena was frustrated that the only lactation room in her building was also the only unisex bathroom in the building and one of the only fully

accessible handicapped bathrooms. Lena told me, “I used to think of it as the bathroom for people who had bodies that didn’t fit the standard mold. The [school] should be able to do better than that. There was often already someone using it for whatever purpose they needed it for, which made it a little bit stressful.” Louisa sometimes took classes in other departments and stated that one of the other buildings was very old and outdated so there was a “lounge area that was very open and public, but then you would go into the bathroom and that was your pumping space.”

Ellen also did not have access to a lactation room so she used a small shower room that had a sink and shower but no toilet and she pumped while sitting on the counter. However, there were often cockroaches in the shower room: “I’m pumping and there’s a huge cockroach, in its final throes, on its back, that I’m staring at.” When Ellen had her second baby, she again relied on the small shower room but then one of the admins in her department encouraged her to use one of the conference rooms. Ellen relayed:

> I went into the conference room and the IT guy came in and he like, ‘Oh, sorry, sorry, sorry.’ He did something on the TV’s in there and then he joked, ‘I’m watching you!’ I started pumping again and I turned and looked and saw that I was on the TV. He had turned on the TV for some IT update and it was the polycom system that’s used for communications between our main university campus and all the other satellite campuses. The IT guy was mortified and he said it was just an update and nobody was viewing that. That shower room...wasn’t great, but it was still better than everybody staring at me.

Sophia’s pumping arrangements after her two pregnancies were somewhat of a “mixed bag” according to her. Her department decided that she would be able to pump in

her office and they even used department funds to purchase a small refrigerator so that Sophia could store her milk in there instead of in the "gross community fridge." However, Sophia's five office mates were less than thrilled that they were kicked out of their offices multiple times a day so that Sophia could pump. With her first baby, the department assigned all the female graduate students that had children to one office, which Sophia found "hugely problematic because we were segregated off from everyone else without our consent. Things like normal conversations that happen in graduate student offices weren't happening because we were separated off from everyone else." Another issue with the department's strategy of grouping all the student mothers in one office occurred because one of her office mates had been unable to breastfeed her baby and had to use formula which was a "very stressful and very emotional thing and being assigned to an office with somebody who was going to be pumping was a very non-ideal situation. It was very much in her face that somebody else had a very different breastfeeding experience from her." When her second baby was born, the department attempted to remedy their imposed segregation of mothers by adding men to the office. Sophia tried to give out her pumping schedule to her office mates at the beginning of the semester; however, one of her male office mates routinely had to be asked to leave so that she could pump and "he seemed constantly annoyed." While this male student did not schedule his regular office hours during times that would conflict with Sophia's pumping times, "He would schedule a meeting with a student and I would have to kick them out

because I needed to pump and that was the only place for me to pump." While Sophia appreciated not having to travel to pump, she felt like constantly having to ask her colleagues to leave their office "was somewhat damaging to our collegial relationship." Students often ignored the "Do Not Disturb" sign on her door and repeatedly knocked and asked questions while she was actively pumping. Sophia noted that a designated lactation space in the building could be used by multiple departments and would mean she did not have to constantly commandeer the office and kick her office mates out.

Two participants (4%) stated that they typically just walked to their cars to pump. Maddie told me that there were five or six empty offices in her department; however, the department chair refused to let Maddie use one to pump. Maddie's office is shared by 25 other students who are all required to hold office hours in there so her office was not a viable option. The lactation room on campus was a 15 minute walk, "Every time I go to pump, I would lose thirty minutes because it's a fifteen minute walk there and a fifteen minute walk back. That's a lot of loss of time, plus the time you need to pump." She noted that she would have just used the bathrooms but there were not outlets in the bathroom so she walked the five minutes to her car.

Six participants (12%) waited until they got home to nurse their babies or would go home to pump because they could not pump on campus. Julia decided to go home for an hour to pump because she found herself unable to get her milk to let-down in the lactation room on campus, in part because other people knocking on the door to try to get

their turn was too stressful. Laurie was also unable to produce much milk in her campus lactation room, preferred to go home to nurse. She also noted there was no coordination and no schedule, and the room was used as a resting room for at least one person on campus that had a disability. Maria was not aware if there were any lactation rooms on her campus, stating that she "would rush back home." Meg also waited until she got home and nursed her baby there because the baby refused the bottle: "It was miserable for his father, for him, and it was miserable for me too. By the time I came back [four hours later], I was just in pain from the milk."

Seven participants (14%) frequently pumped in borrowed office space, including Josephine, who said that there were no lactation rooms in her building, but that she was able to use her advisor's office for the entire year because he was out of the country. River's advisor also allowed her to pump in his office, which was conveniently down the hall from her lab bench. Sheera borrowed an office from a friend, telling me that the official pumping room on campus was too far away from where she did her research assistantship. Ellen, who typically used the shower room discussed earlier, once asked her male advisor if she could pump in his office. She said, "That was super awkward, to have to discuss your boobs with your male advisor."

An additional nine participants (18%) discussed the time constraints involved with pumping in the campus lactation rooms as a barrier. Carol reported that she avoided campus as much as possible for the six months that she was nursing her baby because

there was not a convenient place for her to nurse. Carol's advisor had offered her office while she was abroad for a year but Carol felt weird pumping in her office so she decided to pump in the lactation room in the building next door to her building. Using that room meant going to the basement to get a key from the IT desk and Carol said, "The time it took to get all my stuff, go down there, do the whole pumping routine, cleaning everything up, and then go back, that's almost an hour of my day. It certainly motivated me less to keep pumping beyond that six month mark. I didn't go to campus very much because of that." Claire also complained that while there was time to pump in between the things she needed to be at, the lactation rooms were too far away to allow her time to walk back and forth. Vanessa, who researches breastfeeding, was also frustrated that that the lactation rooms on her campus were a ten minute walk, telling me, "It's going to take me a good thirty minutes just prepping and walking and then of course the actual pumping itself, so it takes me an hour to go pump and I have to do that, what, three or four times a day, depending on how long I'm on campus." Vanessa also pointed out that she would have just gone to the bathroom to pump but the bathroom did not have outlets. For Patty, it would have been a half a mile walk from her office to get to the lactation room across campus which would have severely impacted her productivity. Sarah's campus had a few communal lactation rooms and a communal schedule, none of which were close enough to Sarah's building to be convenient. She also stated that she was not always able to get the exact time she wanted because someone else had already reserved

the room. Helen has also had scheduling issues where she was locked out of the room during the time when she had reserved it. Sophia used the pumping rooms on her campus on occasion but said that because there was no schedule, whether or not the room was available depended on whether another pumping mom got there first. Sophia also pointed out that lockers in those spaces would have been helpful so that she did not have to carry her pump back and forth across campus, especially when it was a 15 minute walk each way. May stated that her campus only has one room for all students, faculty, and staff to use, on a campus of about 30,000 students and is at least a 15-20 minute walk away. Mary also shared a story with me that illustrates not having time to take a pumping break:

> One of my friends is an undergraduate and she has three kids. She said that when she came to orientation, she was breastfeeding, but she was a non-traditional student and she asked her orientation counselor if she could find a space to go pump and he was like, "No, we don't have time for that." She was like oh my gosh, you know. She had to skip out without telling them because he wouldn't allow her to, and she was engorged so she had to go find a bathroom to pump because she had to be sneaky about it because they wouldn't allow it. They said that's not in our schedule. I was so angry for her to even tell me that.

Seven participants (14%) had what they considered good pumping accommodations. Anna's campus had several lactation rooms that were "generally well set up" but required coordinating schedules with other pumping moms and could sometimes be a five minute or so walk away. Patty's department had three pregnant students at the same time so their department set up an empty office as a lactation room for them. Kim pumped in her private office with the door shut; however, it bothered her that her coworkers could hear her pump, and she faced other difficulties:

> I was just pumping all day long and I didn't always respond very well to the pump, so I might be strapped to that thing for forty-five minutes and trying to work. I swear, I never ate. That first year, I lost so much weight, I looked like Skeletor [the skeleton-looking character from the popular 1980's cartoon He-Man]...just the stress and pumping and not sleeping. I just looked awful.

And finally, Lauren's university provided the gold standard for their nursing mothers. Lauren told me, "We have an affiliated hospital so there are nursing, breastfeeding, and pumping groups for students, faculty, staff, and anyone who delivered at that hospital. Every Tuesday they give you a full hearty meal to make sure you're eating good. They have like thirty lactation rooms with hospital-grade pumps." Lauren was also impressed that her mentor, an associate professor, pumped during her meetings with students, "but the most amazing part was that she had this shelf in her office, and all of her pumping parts sitting out there drying in the sun. If anybody walked in there, all her pumping parts were just sitting there drying."

Having convenient and accessible lactation rooms is imperative to supporting new moms who are trying to maintain a nursing relationship with their baby and return to school/work. Ideally, universities would also support new mothers bringing their exclusively nursing babies to campus so they could nurse them if needed. This also ties back into on-campus child care helping reduce barriers for graduate student mothers. If a graduate student mother whose baby refused to take a bottle could go by the child care center and nurse them, it would allow them to still be on campus.

Perceptions of University Policies

Participants were asked if there were any policies at their university they felt helped them succeed and if there were any policies they felt hindered their success; 24 participants (48%) stated there were policies that helped them be successful while 26 (52%) stated there were no policies in place that helped them succeed. Additionally, 41 participants (82%) stated there were policies in place they felt actually hindered their success, while only nine participants (18%) did not feel like their university had policies in place that hindered their success.

Table 23. Perceptions of University Policies

	Yes	**No**
Policies for Success	24 (48%)	26 (52%)
Policies that Hindered	41 (82%)	9 (18%)

Policies that Helped Students Succeed. When discussing policies that participants felt helped them succeed, some of them were things that were federal law, such as lactation-friendly workspaces, while others were things that would benefit all graduate students or all graduate students employed by the university rather than just being a parental or mother-friendly policy.

For example, Carol and Kim both mentioned that having access to health insurance for all graduate students employed by the university was helpful. Lena cited access to health insurance with no upcharge for adding more children was helpful to her. Katherine also discussed health insurance and said that with her university health care plan, despite being in the hospital for four or five days, the bill for giving birth was "only two-hundred dollars." Sophia appreciated the healthcare and, in particular, the free access to the counseling services on campus, telling me, "I think that really helped me be successful not just on a personal level but also academically because it constantly helped me put things in perspective and be able to keep moving through things."

Claire attended a university with paid leave and healthcare that included dependents and said the paid leave "made such a difference to my ability to continue in the program and the health care--amazing. Not having to worry that my child wasn't going to have health care, that was brilliant." Elizabeth's university also had paid leave and she found that to be instrumental to her success. Patricia told me "paid leave is nice because I didn't have to stress about that and knowing my time is protected. I put my out of office [email] on and didn't have to worry about anything for eight weeks. That was really nice."

Julie's university gave students "five years from the point of exams to finish before the university starts screaming at us." Allison's university gave full funding, but students only had to work through their third year. She said, "If I would've had to TA for

subsequent semesters, I would've had much greater stress and strain due to the time commitment but also because of the financial commitment of having to try to find child care for those hours." Allison also stated, "I think their current policy that gives a paid semester of leave without work responsibilities is conducive to staying on track and having a healthy work-life balance and financially making it work."

Sheera's university offered subsidized emergency child care and stated "that thing saved my butt! I think that was the only family-friendly policy there really was." Josephine's university offered a generous package to all graduate students with an assistantship and had family-friendly policies in place. Josephine told me:

> Students could receive a parental accommodation of up to six weeks immediately following the birth or adoption of a child and up to eight weeks for the parent who gave birth. For each childbirth or adoption, students may be granted an extension of up to one year for the time limits that academic policies set for achieving candidacy and finishing the degree. Under limited circumstances, there is a childbirth accommodation fund that would reimburse departments for the salaries and benefits of GSRAs (Graduate Student Research Assistants). There is a child care subsidy too.

Sophia and Zora's universities also offered a child care subsidy of $900 for the quarter, which they found helpful. Lauren and Lena's universities also offered child care subsidies, which helped them. Sarah's university had an onsite daycare that she cited as contributing to her success.

Sophia appreciated the lactation spaces on her campus, "because the handful of times I had my baby on campus, having a place to take him where I felt like I could have some quiet privacy where I could nurse him and change his diaper really made a big

difference to me surviving the day. Louisa also acknowledged her university's "breastfeeding in the workplace policy."

Sophia was grateful for the family-friendly housing on campus because she was able to meet "other parenting graduate students that I have farmed community with that have helped me keep my head above water." Marie also discussed the family housing on campus, telling me, "to be able to have affordable housing that was actually very family friendly, full of families so that nobody really cared if your kid was running up and down the hallway, nobody cared about why there was so much crying from your apartment because there was crying from their apartment too, that was really helpful." Chloe also cited "cheap family housing on campus--they were super--I lived in a two-bedroom apartment with all utilities included for $450 a month."

When asked if the university had any policies that helped them succeed, 26 (52%) participants said no. Julia stated her success "is in spite of everything, not because of anything." Meg told me "I am not aware of any policy, good, bad, or indifferent. It's [pregnancy and childbirth] a major event and we don't acknowledge it." Ann also said she was unaware of any policies, and "I didn't have the time or the wherewithal to seek those out and I felt really demotivated to do so after the educational access office didn't recognize my condition and their sole job is to issue accommodations and to help…I mean, I can't imagine what could be out there." May told me, "Nope, nothing because

there's nothing on the books so there's nothing that helped me." Maria stated, "It feels like everyone is on their own. There were no policies like that."

Policies that Hindered Student Success. In contrast, 41 participants stated they felt their universities had policies that actually hindered their success. Bonnie told me:

> Everything about the culture was not helpful to moms because the success in academic models depend on the sheer amount of publications you could produce. And there was no support other than that, you publish or you're dead, right? That's it. If you're a mom and you don't have time to publish at the rate of other people who are not moms, well, basically, too bad. Tenure-track faculty, they can stop the clock when they take leave-grad students? There is no clock [stopping] where you're given that leeway to at least try to finish up your degree. There's no clock [stopping] and there's no support financially.

Like Bonnie, Daisy was also frustrated by the "anti-motherhood climate" telling me, "some professors looked at you like, 'well, your kid should not be here. Your work shouldn't suffer because of it.' The reality of it is that it is going to suffer-it doesn't mean my work is less, just that I am going to produce slower." Daisy also stated:

> I don't really think they care about mothers and women in general. I can look up university policies, I know there's nothing there for mothers. There should be a mother's rights [flyer]. How hard is it to put together a two-page flyer for mothers? Mothers themselves are too exhausted. It's sheer discrimination.

Patricia found evening classes to be particularly problematic for her because her husband worked nights. She lived about 30 minutes from campus and would have to leave to go pick her daughter up from daycare when they closed, bring her back to campus, and then pay a babysitter on campus so she could attend class. Patricia told me, "We asked the department to change the time of that class so it was during the day

because we had kids. The other [woman] in my cohort is a single mom and had no child care either and they wouldn't do it."

Claire was disheartened that even though her campus had university child care, there were "very limited spaces, no financial support, and it wasn't terribly accessible." Additionally, there were very few daycares near campus that could be reached by bicycle and without a car, Claire found this to be a significant hurdle. Jane was discouraged by the lengthy waitlist at the on-campus child care (her child was on the waitlist for four years and only got a spot after Jane had already moved to another state) and said she thought "[students should] have first choice for the child care."

Josephine was ineligible for fellowships until she had "a certain amount of work done and I couldn't really get the work done without having the fellowship so that I could afford child care." Lena encountered an issue with the child care subsidy at her university: because the subsidy went through financial aid, if a student was awarded a research grant, it would cause them to lose the child care subsidy despite the fact that "you can only spend them on paying your participants, transcription fees, software, work-related travel, or other budget items."

Marie felt like "not being able to take your official leave without losing health insurance was not reasonable." Sophia had to pay the entire Spring/Summer dependent insurance cost for her baby who only needed the insurance for 10 days in August before it switched to the Fall semester and she had to pay again:

> You can't just pay for the month that you need the insurance. I think that's an absolutely bananas policy. It's $1800 for the Spring/Summer health insurance. Every time I get one of those posters for a financial wellness class, I just roll my eyes. How about you guys actually paid us a reasonable amount of money?

May's university required PhD students to be full-time to qualify for an assistantship, "That creates a huge obstacle for many people and does hinder [our success] and it also really privileges the already privileged who are able to go to graduate school." Lauren was frustrated that she lost out on funding after hitting the five-year mark in her program as well as with the lack of maternity leave policies overall in universities,

> Universities are supposed to be progressive-students are going back just two days after giving birth. It is completely ridiculous and it seems like something that could actually get media pickup and put pressure on universities. We're supposed to know everything and this is horrible. The stuff that people are doing in universities is certainly important but teaching and research is not life or death. Someone else could teach that class for a while. The research could be on pause for three months. It is going to be fine.

Mary was faced with a cultural dilemma surrounding maternity leave and was disappointed that even though she got four weeks maternity leave, it was too short:

> In my culture, after you have your baby, you can't leave your house for month and after that, you should only be caring for yourself and baby. There's certain practices, they just believe that your body is still healing-they believe you need to cover your head from any colds because you could be prone to headaches, you need to wrap your belly too because your insides are still finding their place again, so, if you move around too much, it's not going to be able to rest well. That one month, you're almost bedridden. You have to follow a specific diet, so you're not supposed to eat a lot of salty or sweet or cold things. You should be eating chicken stew-bland and warm. If you do go out and about, you have to wrap your head, keep yourself warm, wear a big jacket, not eat a lot of heavy foods. I craved a lot of carbs after my pregnancy. I wanted bread and pasta and steak but [my

> mom] would not allow me. All she would do is cook chicken soup with rice to make sure I recover well. When I had to leave [to go to the interview], my mom was really angry. She was very unhappy. She was like, "You're going to get it when you're older. It's going to cause you so much pain.

Others cited a lack of policy as a significant hindrance to their success. Carol told me "The lack of a maternity policy, if I couldn't work, I would lose insurance and that's a big problem. We didn't get FMLA, not that that really helps a person all that much either, but there was no protection. It wasn't so much a bad policy but the lack of policy." Clara also cited a "lack of FMLA" as problematic. Meg and Marsha cited a "lack of policies" and Summer told me, "There was just nothing there--there were no resources to draw from."

Anneliese told me:

> There's no maternity leave and very little ability to take leave at all, for any reason, for graduate students, has definitely been a hindrance. I mean, I guess I could have taken leave but I would not have had my position, nor my finances protected in any way. That's definitely a problem that I think a lot of graduate students face.

Julia said she found "the general lack of clarity" around what options were available to her as a pregnant and postpartum student was a hindrance to her. Once her baby was about a year old and she stopped breastfeeding and realized, "Oh, I can do this now! I can go back to my life now! It made me realize if [my clock] can be paused and come back with no issues, I might have been on an even faster timeline and kept me from slowing down my timeline so much." Laurie found "the lack of maternity leave [and] the lack of clear information about the possibility to have a leave of absence" to be a major

obstacle, as well as the time limits and deadlines on time to graduation: “for some parents, it does take longer because of having kids, so having those kinds of deadlines aren’t very accommodating.” Sheera also mentioned “the time to graduation thing being a bit of a barrier” as well as “a lack of acknowledging that being a mother is a part of your life.” Julie also said “The whole thing about them not having a blanket policy on how to treat pregnant graduate students was harmful--and the mixed messaging I got from the department, getting blacklisted for fellowships. But in terms of university-level policy, there wasn’t [any].”

Maddie found the lack of maternity leave problematic and felt as though she was constantly pulled between academia and her baby and that neither of them “got all of me.” Maddie hid her pregnancy “until I had a contract in hand” out of fear she would be fired, and felt like a policy from the university that stated they could not fire pregnant graduate students would have been helpful. She also felt like there was no support in place for graduate student mothers because of “these really big assumptions across the board that all graduate students that are parents are well-partnered. It’s unfair to assume that mothers get to be graduate students because their spouses are supporting them. It’s bullshit.” River said that despite having a husband with a good job, the financial strain on them was substantial and caused some relationship strain. River said, “even though my husband had a good job, it was still stressful. That was kind of a sore point for my husband, ‘We’re paying out the nose for you to be able to take him to the daycare and

this is not worth it.'" River also acknowledged that she was in a financially "privileged position."

Cecelia's university did not have maternity leave but she took a leave of absence, but "not being enrolled means I can't have access to anything even though the reason for your leave of absence could be something like pregnancy or childbirth." Diana was also frustrated by the lack of clarity regarding maternity leave and that it was left up to her to "just talk to the department and figure it out" noting that her "department is headed up by old men…they've never been pregnant, they don't know what it's like." Diana also told me "I felt like the university could have done a much better job being more explicit about what the maternity leave would entail." Patty told me:

> The lack of a formal policy actually did hinder some of my success where not having formal guidelines for the department meant that I had to try to figure out every time that was happening. It also meant that the three of us who were pregnant at the same time were all asking our advisors about what is best to do and our advisors are all giving us slightly different answers. [They] could change their position on what was right and what wasn't and what our limitations were and it became confusing and then conversely, difficult to navigate.

Elizabeth was frustrated by expectations after her baby arrived, telling me:

> It's just expected that you have to be [in the lab] until 7:00 PM, so, who's picking up your kid from daycare? We don't make enough to afford a nanny that's going to stay there until 7:00 PM. The fact that there were no policies and it's just up to your lab head to sort of figure it out with you means they can really take advantage of you if they want to.

RESEARCH QUESTION 3: SUPPORTING PREGNANT AND MOTHERING GRADUATE STUDENTS

To some extent, this question has been answered throughout; however, further exploring the experiences of graduate student mothers provides more insight.

SUPPORT FOR PREGNANT STUDENTS

Perhaps one of the best ways that departments and universities can best help their pregnant and mothering graduate students is simply by understanding what sort of challenges they faced during their pregnancies and while mothering.

Challenges and Difficulties During Pregnancy

Nineteen participants (38%) had health problems or physical pain and discomfort during their pregnancies; 15 participants (30%) reported fatigue, brain fog, and loss of focus, all of which impacted their productivity. Brain fog causes confusion and disorientation and can make people feel as though they are unable to think, understand, and remember things as they normally would; it can also impact the memory, including the ability retain and recall information and the use and understanding of language (Sissons 2019). Additionally, nine participants (18%) had trouble balancing their family lives with their academic lives, and they worried about their future in academia; eight participants (16%) had trouble keeping their emotions in check and/or anxiety; six participants (12%) said they were socially isolated and had a lack of support, while

another six participants (12%) stated they had issues with their advisors, faculty members, or the policies at the school. An additional five participants (10%) mentioned issues with both unpredictability and long commutes. Finding child care and financial issues were struggles for four participants (8%) each, and three participants (6%) stated they had issues with both healthcare coverage and either having to move or complete fieldwork out of town.

Table 24. Challenges and Difficulties During Pregnancy

Challenges and Difficulties During Pregnancy	Number of Participants
Health Problems, Physical Pain, and Discomfort	19 (38%)
Fatigue, Brain Fog, and Loss of Focus	15 (30%)
Trouble Balancing Family/Academia	9 (18%)
Emotional and Anxious	8 (16%)
Socially Isolated/Lack of Support	6 (12%)
Issues with Advisors, Faculty, Policies	6 (12%)
Unpredictability with Pregnancy	5 (10%)
Long Commutes	5 (10%)
Finding Child care	4 (8%)
Financial Issues	4 (8%)
Healthcare Coverage	3 (6%)
Moving or Out of Town Fieldwork	3 (6%)

Bonnie said:

I had to inject myself with blood thinners, every single day for nine months, and in the last month, I had to inject myself twice a day because I had to use a shorter acting blood thinner in case I went into labor. You're constantly concerned about your health. That wasn't easy.

Julie recalled, “The first semester, I was dealing with nausea and the ability to function. My ability to walk outside without puking every time I smell trash on the streets.” Sarah and Sophia also struggled with nausea and morning sickness. Diana had gestational diabetes and had to take her “blood sample four times a day and strictly monitor [her] diet. That was really difficult to handle.”

Ann had major complications, including profuse bleeding and excruciating pain, and had to fight her university for accommodations for her doctor-ordered bedrest. She was also frustrated that people in her department made what she found to be rude, sexist comments to her about her pregnancy. Louisa and her husband had incompatible blood types that could have been dangerous for the baby so she had to take a series of RhoGAM shots that caused serious side effects.

Anneliese had Hyperemesis Gravidarum. According to the Hyperemesis Education & Research Foundation (HER Foundation), Hyperemesis Gravidarum (HG) is a “pregnancy disease marked by rapid weight loss, malnutrition, and dehydration due to unrelenting nausea and/or vomiting” (HER Foundation 2019). Additionally, “HG babies are at increased risk for low birth weight, small size for gestational age, and preterm birth. Over 1/3rd of HG babies do not make it to term. Nearly 20% of HG pregnancies are lost to therapeutic terminations, citing ‘no hope for relief’” (HER Foundation 2019) Anneliese said, “My biggest obstacles were my level of energy or trying to hide the fact

that I was throwing up all the time, at least for the first 22 weeks, or trying to make sure that didn't happen in the middle of class."

Zora discussed her mental health struggles, along with those of her husband, after they received a Down syndrome diagnosis for their baby:

> We were just shocked...one of the reasons we determined we would have a baby now while I was in school, even though we weren't quite financially where we wanted to be, was because we wanted to do it before I got too old. It was just really ironic that we sort of rushed and put a lot of strain on our marriage to avoid something that then still happened. It was really bad...there were mental health issues on both parts. My husband went through a very deep depression which was way worse than mine. I just didn't really have emotional support through that issue.

Jean was uncomfortable while sitting and brought a yoga ball to campus to sit on. May, Maisie, and River all discussed the physical difficulties, aches, and pains of pregnancy, and Summer and Vanessa mentioned the difficulties of walking around campus as they got further along in the pregnancies. Clara, in particular, was having issues with a large hill on her campus. The university was initially unwilling to give Clara a disability parking pass so that she could park closer, but after Clara called a center on her campus devoted to gender equity and said that the inability to park close was impacting her access to education, they gave her a disabled parking pass.

Brain fog, fatigue, and loss of focus impacted the productivity of 15 participants. Julia said "writing was really hard during [her] pregnancy...just the fogginess...my brain felt so soggy, like I couldn't do anything. It felt like such a barrier." Maddie also struggled with writing:

> I couldn't write. There were multiple nights I would just fall asleep on my computer. So, one, trying to carve out time to do other things and then it was just like I couldn't get my brain into that space to be able to write and then I would write things and it wouldn't make any sense.

Amy had extreme fatigue and discussed "just trying to get everything done...trying to have enough time in the day to get all of your school work done and actually working-teaching, grading...just being fatigued through it all." Katherine and Helen both said that fatigue was the most difficult thing they had to deal with. Helen told me, "I think that fatigue was a huge thing. I just did not even anticipate the level of fatigue that I would experience. I was working at a pretty intense pace before I got pregnant but it was just hard to keep it up when I was that tired and feeling sick." May said the "physical exhaustion and nausea were the biggest obstacles." Lauren also struggled with fatigue, "I got pregnant and was just like, 'No, I got to go to bed at 8:00 PM. I cannot work in the evening, I cannot even wash the dishes in the evening.' All that was tough."

Rose told me: "There were days when I wouldn't get any schoolwork done and just having it sitting over my head was affecting my emotional state." Maria said: "Doing my readings and writing and balancing this all was more difficult because I was more tired, especially during the second half of the pregnancy when you became more tired." Miriam found it "difficult to concentrate, difficult to write, difficult to complete my scores, but I did so successfully." Lena said the following:

> [I found it] difficult to stay focused, it was difficult to set aside how I was feeling physically and push through that to do the intellectual work that I need to do. Like the tiredness of being pregnant is not normal tiredness. It's like somebody just flips the off switch, and so it feels like it should be a matter of will that one should be able to just push through, but it's really not.

Diana said she was "hell bent on making progress with my dissertation and falling behind...it was just really important to me that I make really good progress...it's difficult to do that." Stephanie had "a lot of trouble remembering things, a hard time spelling words, or understanding things. I'd have to go back and read the same thing over and over again in the book because my mind would wander...that and the exhaustion were the biggest."

Nine participants had trouble balancing their family lives and academic lives and that worried about their futures in academia. Helen felt stress about what her future in the program would look like, and Bonnie told me:

> Being pregnant and concerned about my academic future...I think that was the worst. Just wondering how you're going to pull this together. How am I going to do this as a mom when the baby comes and I have to keep working like this? Am I ever going to be able to obtain a tenure track job and if I do, what is that going to look like with a kid? It was just so much uncertainty those last couple of years in the PhD. The market is crazy competitive. Are you competitive? Are you ever good enough to compete with people who don't have kids, who have all the time in the world to stay in the lab and not worry about getting home to a crying baby. It is just constant self-doubt...how are you going to figure this mothering thing out as well as this academic thing? It was just a lot of anxiety about that.

Mary told me she felt like she did not belong, "feeling like I always have to respond a certain way to feel accepted so people don't think me being a mother and being

pregnant is going to take away from my job, my academics, and my education." Bell said:

> It's already difficult when you're trying to nurture a baby, have two other kids, and a husband. Then, throwing work and school into that, just balancing it all. The biggest thing was my husband being like "You're not balanced!" and trying to explain how you can't really be balanced when you're working on your doctorate but it was even more difficult when I was pregnant and just trying to find a balance and be there for my kids and just being exhausted.

Elizabeth was frustrated that she had to go into the lab while she was on maternity leave and felt like there was a lack of family/life balance. Meg also struggled with:

> The combination of all the things, one on top of the other. I've been caring for a preschooler all day and it's time for me to do my usual 9:00 PM-2:00 AM thing of my classwork and my editing work, but I'm pregnant and I'm exhausted, but I have to do it. I keep doing it and I get more and more exhausted but I keep doing it because I have to do it, and it affects the quality of my work. It affects the quality of my parenthood, it affects how I feel. If I were just pregnant, I don't know that I necessarily would have felt that but because I was a pregnant person with grad school responsibilities and a preschooler, that made it more challenging. Even though I'm killing myself at it, it's never going to be enough.

Vanessa had trouble balancing her multiple and often conflicting roles:

> Being able to separate the different people, my different identities. I'm a teacher, I'm a mother, I'm a wife, I'm also a student. I think separating those was getting kind of difficult towards the end. The identity that pushed aside ended up being my wife one, which was really hard for my husband and really hard for my family. At some point, there's only so much you can do, you have to give up some stuff...everything was piling on top of me towards the end and it was starting to feel really overwhelming. Student had to come first, and then teacher had to come right after because that's how I got paid. You can't put your son aside, you have to stay mom, but even mom was getting hurt. My husband was making comments like 'You're not very patient with him, he's three years old. He doesn't know. You haven't hung out with him.' And on that day, I hadn't seen my son in two weeks and took him to the office. I just had to insert grades and I can insert grades with my child next to me because I wanted to be near him because I

> hadn't had a chance to be near him at all because I was at the office all day working on my schoolwork. Just the juggling of holding it all together, keeping everything intact, making sure my marriage survives this.

Eight participants mentioned difficulties with anxiety and keeping their emotions in check, like Carol who said "I was anxious about what it would be like to give birth." Daisy said of her struggles with anxiety:

> I could not put school ahead of my baby. I just refused. My baby comes first...if something happens to my baby because I'm stressed out about school, I'd never forgive myself. There were days where I was anxiety ridden. I tried very hard not to let it get to me but there were days that I would get very stressed out that I wouldn't finish the program.

Miriam struggling with anxiety as well: "Controlling and managing my anxiety...I would walk to work, I would come home, and I would just not move unless I had class and only felt safe in my apartment." Sarah told me, "I haven't lost a pregnancy personally but I've had many friends who have. That was something that was on my mind a lot in the first semester. It was pretty distracting, the anxiety was a struggle."

Rose said she struggled with trying to:

> Keep my emotions level when schoolwork was getting out of hand or when I was having trouble with my advisor. Anyone who's worked on a dissertation knows it is a marathon, and you feel like you just trudge, it feels like walking a marathon. All of that while feeling hyper-emotional, having morning sickness, catching everybody's cold." Julie also struggled with feelings of self-doubt and said her "self-worth goes up and down with my productivity. When I'm doing a lot of my dissertation work, I feel a lot better about myself in general, and when I'm not, I get really really down on my status as this never-ending student who's not bringing in any money and is actually causing us debt. This feeling of self-loathing...when you're not bringing in any money, it's really hard sometimes in this capitalist country to calculate your worth.

Anneliese also noticed:

> It was getting a lot harder to reign in my emotions a little bit. I wouldn't say I was a loose cannon. I had to try to take a step back and say, 'Okay, right now, I'm so angry and so frustrated and so done that I'm ready to walk out the door and never come back. How much of this is because I'm not coping well and how much of this is real?'

Claire had a lot of anxiety surrounding navigating the United States healthcare system because it was different than her home country's healthcare system. Claire told me:

> I feel like, in my home country, you don't have much choice. You just walk up and give birth and you're done. It felt scary the way that I had to make all these choices about what kind of birth we wanted, what kind of provider we wanted. The process of sorting out the healthcare was a little bit stressful.

Social isolation, coupled with a lack of support was reported by six participants. Carol's mother passed away four years before the baby was born and her father died a few months after the baby was born. Carol said, "Not having parental support, even though they lived far away...I think it would have been better to have both of them as resources." Claire said "it was a challenge for me being so far away from people. I just missed my mum a lot sometimes. It would have been nice to have somebody come with me to prenatal appointments when my husband couldn't, just small things like that. That isolation was a challenge."

Sheera felt "People started to look at me differently. I would say that my relationships with other graduate students became strained. I sort of lost the ability to collaborate with some people." Zora felt socially isolated, telling me that after they

received the Down syndrome diagnosis and canceled her baby shower in the department, she disappeared for three weeks and "no one reached out to say 'Hey, how are you?'" Zora said:

> I didn't even get a message from my advisor. When I finally did have the shower, nobody came. My advisor didn't come, she didn't send a gift. It just felt like my relationship with everyone...I thought I had maybe a little bit more of a personal relationship with people and I found out it was just academic, it was just professional. That kinda pissed me off. It was a really tough time.

Additionally, six participants cited problems with advisors, faculty members, and school policies being major obstacles for them. Rose and Marsha both encountered issues getting into contact with their advisors and were frustrated at all the delays they encountered when they did not get back to them. Patricia said that her advisor "was probably more of an obstacle than not an obstacle." Clara stated "the policies in place at my university have been the most challenging because it's like 'Oh, well, you chose to get pregnant and you're a student. Deal.'" Chloe's advisor made her do multiple pilot studies which ultimately changed her timeline and she found that frustrating.

Long commutes were a struggle for five participants, such as Claire who had several hours on the train every day and found it very uncomfortable physically to have to sit for that long when she was at the end of her pregnancy. Elizabeth had a long subway commute and was frustrated when "no one gives you a seat." Maria had over an hour commute each way. Kim was living in another state and commuting back and forth to campus because her data was "restricted health data" that was confidential and not

allowed to leave campus. Kim drove in and slept in her office for days at a time while pregnant just to access her data so she could finish her dissertation.

Five participants struggled with the unpredictability of pregnancy, like Daisy who told me:

> You don't know what needs your body has until you wake up that morning. You keep trying to do work, you're sitting at your computer but you physically can't. You're going to get interrupted if you need to get up and pee every thirty to forty-five minutes and then they tell you to drink so much water, and then the baby is kicking you and the heartburn was so extreme for me.

Maddie was also having difficulty "trying to time things and you have this date plus or minus two weeks in either direction and when are you gonna have a baby and so I felt like I couldn't commit to anything. I was passing up opportunities because I didn't want to commit to something and then have to cancel." Patty told me:

> Planning was really hard because I didn't know what it was like to have a newborn and how much I would be able to do. If my pregnancy ran late, I would just be a couple of days recovered from giving birth when the semester started and not really being able to plan is really disconcerting for me.

Anna worried about meeting her deadlines before the baby was born, "there was a lot going on and a lot of unknowns in my life at that point in time." Ellen found it stressful to not know what sort of maternity leave she would have and said "it was difficult to rely on the goodness of my advisor, or my department."

Child care expenses were a big obstacle for four participants, like Jane, who said that she did not qualify for financial assistance with child care despite being low income students. Marie said, "I knew that child care was expensive but I didn't really realize that

it was half of my stipend until I actually started looking into it." Katherine said "if I was able to have some kind of help with paying for child care, 'cause we certainly can't...it's hard, it's expensive. Having some kind of help, even a couple hours a week to work on my dissertation would have been nice." Another four participants cited other financial difficulties as a barrier for them such as Laurie, who told me, "both of us being grad students and making $900 a month for nine months of the year was an added level of stress." Summer found it "hard to justify buying stuff on a grad student stipend, all of the baby stuff. I was just worried all the time about accumulating the stuff we needed."

Josephine, Laurie, and Marie, were either moving or doing fieldwork out of town and found that to be an obstacle for themselves. Marie had to move while pregnant because the place they lived "was a fourth-floor walk-up with 7,000 ways for a baby to die." Josephine also had to move unexpectedly when she was eight months pregnant and found that the move took up a lot of her "mental and physical energy" and that it was "really hard to focus on taking care of stuff for my research when I had to make sure the baby had a place to sleep." Laurie was planning for her research fieldwork out of the country after the baby was born, "there's guilt about the idea of going out of the country just a couple months after having a baby and worrying about whether that would work out right and worrying how that transition would go for our older daughter."

Jane and Marie cited one of their biggest obstacles as healthcare. Jane was not from the U.S. and had difficulty navigating the United States healthcare system, like

Claire, and found it overwhelming “on top of being pregnant and not feeling well, being in school and working.” Marie had a preexisting health condition that required extra sonograms that the health insurance company did not want to pay for. Marie told me:

> That was super stressful because it kept happening. They just send you $5000 bills and hope that you’ll pay them because you get too stressed out or annoyed or frustrated by dealing with them. But there was no way I could do that so I did appeal after appeal after appeal, and not formal appeals but writing to person after person and talking to person after person and knowing you had to keep a log. I have so much education and I still can barely figure this out. This is such a B.S. system. That was really stressful.

Pregnancy Health

Understanding the health challenges faced by pregnant and postpartum students is important for offering support to them. Pregnancy health for participants was good overall, with 28 (56%) reporting they were in good physical health during their pregnancy, 11 (22%) reporting fair physical health, 11 (22%) reporting poor physical health during their pregnancy, and 19 (38%) specifically discussed morning sickness.

Table 25. Pregnancy Health

Pregnancy Health	Number of Participants
Good Physical Health	28 (56%)
Fair Physical Health	11 (22%)
Poor Physical Health	11 (22%)
Mental Health Problems	6 (12%)

Morning sickness proved to be a struggle for many participants, such as Miriam who ran out of class several times a class period to throw up, before she was ready to reveal her pregnancy to her classmates or professors. Anneliese also struggled with nausea during class while she was leading the discussion section. She said, "There were some mornings I was throwing up five minutes before I had to go teach a discussion section. I don't think a day went by that I didn't get sick at least three times, sometimes more." May and Lauren both recalled constant nausea, and both felt like they had to eat something nearly constantly in order to calm the nausea.

Fair Physical Health. Among those who reported fair physical health during pregnancy, Claire had extremely itchy skin that made it difficult to do much or sleep, and she had to coat herself in calamine lotion. Daisy has a chronic illness, Hashimoto's disease, which causes her thyroid to stop functioning, so she had to take hormone

therapy, and work with three different doctors to make sure all of her thyroid levels were correct. Laurie had high blood sugar, and River had morning sickness and Symphysis Pubis Dysfunction, which is a condition of pregnancy that occurs when the ligaments that typically keep the pelvic bone aligned become too relaxed, causing pelvic instability and pain (Murkoff 2016). Zora experienced extreme nausea throughout her pregnancy, as did May. Katherine and Sarah both experienced pregnancy-related hypertension.

Bad Physical Health. Among participants with bad physical health during pregnancy, Emmy had perhaps the most extreme case, throwing up so much that she passed out twice and then was sent to the emergency room because of a suspected brain hemorrhage. The on-call doctor refused to give her pain medication, telling her "You need to think about the life inside of you." Emmy replied, "It's a fucking parasite! You need to think about me! I am your patient!" After the brain scan only showed artifact and not a hemorrhage, the doctor refused to admit her to the hospital and sent her home where, without painkillers, she was in so much pain that she could not walk. Her obstetrician later admitted her to the hospital for five days, putting her on a strong rheumatoid arthritis drug, but only six hours after leaving the hospital, she was readmitted because of vomiting. After she was released again, her husband came home to find the garage door, car door, and house doors all standing wide open and walked inside just in time to watch Emmy's eyes roll back in her head as she passed out again. An ambulance ride to the hospital resulted in being loaded up on morphine but the hospital

refused to admit her again: “Literally, they had a security guard carry me to the car kicking and screaming because they refused to admit me or call my GP, who is Chief of Staff--he was pissed.” Not long after, Emmy woke up with severe swelling, and was unable to put her shoes or rings on. “I talked to my dad, who has a fucking medical degree, and he was like, ‘Your mom says pregnant women swell. Your mom says everything is fine.’” The Dean of her college saw her a few days later and insisted that she go to the doctor because something was not right. Her doctor informed her “You’ve gained 35 pounds in three weeks and it’s all water, it’s preeclampsia. You’re going to the hospital until you have the baby.” Emmy’s baby was born 15 weeks early, was put on a ventilator, and had heart surgery before she was transferred to the children’s hospital.

Julie suffered from severe morning sickness to the point that she said her older son still mimics her vomiting. Maddie had blood pressure issues that resulted in preeclampsia, and Mary had hip problems with her second child. Yvonne’s baby measured small and she delivered a month early. Lena had gestational diabetes, high blood pressure, and needed fetal monitoring twice a day. Diana also had gestational diabetes, in addition to pelvic separation. Lauren, Helen, and Anneliese all had preeclampsia, and Anneliese also had Hyperemesis Gravidarum, kidney stones, and Ehlers-Danlos syndrome. Ehlers-Danlos syndrome is a connective tissue disorder characterized by hypermobility of joints and hyperextensibilty of the skin (skin that can

be stretched out more than normal), and tissue fragility (The Ehlers-Danlos Society 2019).

Ann also had a difficult pregnancy. She had her gallbladder removed at 5 months pregnant, and already suffered from Ulcerative Colitis. According to the Crohn's & Colitis Foundation (2019), Ulcerative Colitis is a chronic inflammatory disease in the colon that causes small sores or ulcers to form. The ulcers in the colon cause abdominal pain and produce pus and mucous in addition to frequent diarrhea and bloody stools (Crohn's & Colitis Foundation 2019). She also had quite a bit of trouble having her severe abdominal pain recognized by her doctor who kept telling her that her pain was psychosomatic and not real. Ann was in so much pain that she could not eat and she had to stand with her stomach hanging over the table to take the pressure off. Ann recalled, "I couldn't move, I couldn't shower, I couldn't walk, I couldn't sleep, I mean, it was constant pain." She also had a scare where she began bleeding heavily and was convinced that she had lost the baby, but a visit to the hospital showed that the baby was still okay. Ann emailed her mentor to tell her that she was in the hospital bleeding and would not be at school the next day, explicitly asking her mentor not to tell anyone. Not long after, she began receiving texts from people in her lab asking if she and the baby were okay, because her mentor had told everyone, despite being explicitly asked not to (although it should be noted that it would have still been illegal for the mentor to tell others about Ann's private medical information even if she has not explicitly asked her not to say

anything). This was the second time that Ann's mentor revealed Ann's personal information to other students, after being asked not to tell anyone, showing a pattern of disregard for Ann's right to privacy as a pregnant student.

Both Ann's story and Emmy's story of their pain not being taken seriously by their doctors points to the common problem of women's pain not being taken seriously and telling them their pain is all in their heads (Chapman, Kaatz, and Carnes 2013; Samulowitz, Gremyr, Eriksson, and Hensing 2018). While this is certainly not exclusive to graduate students, it does cause delays in care, resulting in untreated pain and sources of pain, and making it more difficult for women to complete their work.

Mental Health During Pregnancy

Mental health problems arose for six participants (12%) during their pregnancies. Rose experienced depression during her pregnancy, and Ellen suffered from both depression and anxiety. Zora began therapy during her pregnancy, after depression set in when her baby was diagnosed in utero with Down syndrome. Bonnie's anxiety seemed to revolve around her status as a graduate student, and as a mother in academia, and how her pregnancy and resulting baby might impact that. Bonnie told me:

> I was really anxious, highly anxious. My anxiety was not the normal type of anxiety for first time pregnancies. I think it was anxiety because I may be out of a job, or I'm not going to have a job, or what am I going to do? How am I going to take care of a baby and succeed in this career in academia? My mental health certainly was not healthy because of all the anxiety. I don't think I was healthy, physically or mentally, during that first pregnancy at all. I feel a little ashamed saying that because I wish I could have taken better care of my kid in the womb. My physical health was not healthy because I had to go to the ER to get myself

> checked out, though nothing significant came out of it, I just felt all these symptoms of it.

Bonnie's anxiety, and the physical manifestations of it, show how high levels of stress can impact the mental well-being of graduate student mothers in a culture where mothers are seen as less committed, less capable, and less competent than their non-mother female counterparts and their colleagues who are fathers (Ridgeway and Correll 2004). Miriam's anxiety also caused her to need more frequent visits to her doctor, because she was worried something was wrong. Miriam recalled:

> I really struggled with horrible anxiety and I started therapy because of it. I had scheduled ultrasounds every two weeks and I never once make it the full two weeks without calling and having to go in for some emergency in my head. In reality, my pregnancy was fine but in my head, it was this very sort of anguished, tumultuous, emotionally fraught, dangerous thing.

SUPPORT FOR MOTHERING STUDENTS

Postpartum Health

Postpartum health for new mothers is something that can greatly impact their day-to-day functioning, and poor postpartum health for graduate student mothers could potentially have a negative impact on their ability to keep up with their academic responsibilities. Good physical postpartum health was reported by 22 participants, 12 participants (24%) reported fair postpartum physical health, and 16 participants (32%) reported poor physical health during the postpartum period.

Table 26. Postpartum Health

Postpartum Health	**Number of Participants**
Good Physical Health	22 (44%)
Fair Physical Health	12 (24%)
Poor Physical Health	16 (32%)
Mental Health Problems	27 (54%)
Relationship Strain-Source of Stress & Poor Mental Health	5 (10%)
Breastfeeding-Source of Stress & Poor Mental Health	12 (24%)

Good Postpartum Health. When asked how their postpartum health was, 22 participants (44%) stated their overall postpartum health was fairly good. Chloe mentioned that she had mastitis but it was, overall, a "pretty good" recovery. Mastitis occurs when the breast is inflamed and painful due to a build-up of milk from a blocked duct that may lead to an infection (La Leche League International 2019). Maddie and River noted they had vaginal tearing after birth that required stitches. Maddie said it "hurt like hell" for several days when she urinated, because the "baby's fingernails had scratched her [vulva] on the way out." Others, such as Rose, Meg, Lena, and May had C-sections that required quite a bit of recovery time. As Meg noted, "They tell you,

basically six weeks, don't do anything after a C-section, so that's hard." Because these are normal parts of childbirth, their perception was that their health was good; however, it should not be ignored that four of these women had major abdominal surgeries that required weeks of recovery. The fact that their C-sections healed normally with no unusual complications does not negate the trauma their bodies endured, nor does it mean they did not need time to recover from the birth. Meg attributed a large part of her relatively easy recovery from her C-section to her husband being able to take five full weeks of 100 percent paid paternity leave, stating:

> Here's a surprise: It made a huge difference! It really made a nice transition, because what's the difference in having your partner around to take care of your toddler when you are trying to break in a newborn, versus taking care of a toddler and trying to break in a newborn [on your own]? It's a world of difference!

Many of the women who reported good physical postpartum health also reported poor mental health while postpartum. I will explore the mental health postpartum aspects after discussing the physical issues experienced by the remaining participants.

Fair Postpartum Health. Based on what 12 participants (24%) told me about their postpartum health, I categorized their postpartum health as being "okay." In other words, they had some issues that caused problems, but did not report the same sort of "poor or bad" physical health issues postpartum as the remainder of participants.

Like Meg, Maisie and Lauren also had partners who were able to take paternity leave, and all attributed this to helping them recover. Maisie had a C-section and was "laid up for a couple of weeks," taking about two months before she felt somewhat

"physically okay," but stated that her "stamina is still not quite the same." Maisie gave her husband's five weeks of paternity leave partial credit for her speedy recovery, telling me, "The fact that he was around as much as he was really helped me to recover fully. I know not all women have that opportunity to have their husband home for that long so I was pretty lucky." During her second pregnancy in graduate school, Lauren needed an emergency induction due to preeclampsia, and was grateful that her husband had six weeks of paid paternity leave to help her recover, and take care of their toddler, so that she could take it easy. "That made a really, really, really big difference," she said. Preeclampsia is a potentially life-threatening illness, characterized by high blood pressure, swelling, sudden weight gain, headaches, and vision changes (Preeclampsia Foundation 2019). Preeclampsia affects at least 5-8 percent of all pregnancies and if left untreated, can be deadly for both mother and baby (Preeclampsia Foundation 2019).

Emmy, like Lauren, also had preeclampsia, and had a taxing and dangerous pregnancy and delivery, but recovered relatively easy from her ordeal, although she still needed blood pressure pills and diuretics to help her recover from the preeclampsia.

Carol caught a virus while still in the hospital postpartum in addition to recovering from the physical strain from a vaginal birth, and mentioned a lack of sleep as contributing to her postpartum issues. Carol stated that it took her "about eight weeks to feel whole again and several months beyond that to really start to feel good and strong again."

Allison had a frustrating experience when she had thrush on her breasts, and the campus doctors she was required to see with her university insurance were not equipped for or knowledgeable about postpartum health issues. She was initially prescribed athlete's foot cream which did not clear up the thrush, and then finally saw a different doctor who prescribed her the correct nipple ointment; however, the only reason the doctor was aware of what to prescribe is because his own wife had recently had the same issue, and that was what her doctor had prescribed. The lack of access to appropriate postpartum medical care for women required to see campus doctors is problematic, and something that needs to be looked at more carefully in the policies as campus doctors are generally not equipped to handle pregnant and postpartum women.

Claire mentioned being "completely exhausted and in all sorts of physical discomfort" including multiple rounds of mastitis, which is a very painful and potentially dangerous infection. Additionally, Claire experienced some tearing during birth that required stitches. The stitches did not heal properly, and it caused pain that made it impossible for her to have sex with her husband. It took three different doctors and seven months of pain before a doctor finally took her pain seriously, and performed a procedure where they cut her open and re-stitched the area. Claire stated, "That was a significant stress. I was just like, 'Oh my god! Am I never going to properly enjoy sex again, because it's going to be painful for the rest of my life? I'm just expected to suck it up?!' I was increasingly feeling like, 'Fuck this! I know what the issue is and nobody is listening

to me!" Claire's experience highlights a well-documented issue in women's healthcare (Samulowitz, Gremyr, Eriksson, and Hensing 2018) where their pain is not taken seriously by their doctors, and they are told that the issue is "normal," or all in their heads.

Anna was one of the few lucky participants who had six weeks maternity leave, but she stated, "Six weeks is not sufficient. I never quite finished recovering [from birth], because I was back at work, and baby was in daycare. They don't generally impact my day-to-day life, but are just a bit nagging, back issues, joint issues, that sort of thing." Ellen was "not prepared" for the "intense" exhaustion that came along with a needy baby who did not sleep well at night. Ellen found this "really did impact my ability to think. It took a little while before I could really get into analyzing data and a lot of thinking type work."

Despite the above participants not having some of the extreme difficulties of the participants that reported "bad" postpartum health, they still had plenty of issues that required adequate medical care and recovery time.

Bad Postpartum Health. The remaining 16 (32 %) participants reported "bad" or "poor" postpartum health. Those with poor postpartum health likely struggled more to keep up with the demands of school and work, and serve as a good reminder of why a one-size-fits-all approach to pregnancy and the postpartum period may not work for everyone.

Bonnie not only had a difficult pregnancy but, according to Bonnie, the postpartum time was "even worse than pregnancy." When Bonnie returned to school and her work in the lab at three and a half weeks postpartum, she was suffering from bulging discs in her back that were injured during the four and a half hours she spent pushing during labor. The injuries to Bonnie's back took ten months of physical therapy. An injury to the tendon on the outside of her thumb and her wrist also resulted in months of physical therapy.

Daisy had a C-section and stated that she "could barely walk," so her mother was able to fly out and take care of her for a month. Diana also had a C-section that took a while to heal. Cecelia recalls "I had a lot of pain, particularly back pain. I couldn't even pick my child up." Anneliese had continuing high blood pressure problems after the birth of her baby, and kidney problems, and notes the "lasting effect" that the pregnancy and birth have had on her. Sarah had blood pressure issues postpartum after both pregnancies, and the week after the second baby was born, she was hospitalized with preeclampsia. And Lauren recalls her complicated labor that resulted in an "episiotomy and a bunch of stitches," and her midwives who insisted that for her long-term health, she "not really walk around for six weeks."

Pain from vaginal tearing and lack of sleep plagued many participants, such as Marie who reported she had a lot of tearing during labor and recalled, "I certainly did not feel like myself, and couldn't really sit down for like six weeks after my son was born."

Marie felt run down because her baby was not sleeping, telling me, “I just generally felt like I was clawing my way through the day. I felt like crap for at least six weeks, and then didn’t sleep for at least six months. He just never slept; he was colicky and didn’t sleep, and wanted to nurse all the time. I was grateful for getting two-hour [sleeping] sessions at that time.”

Other participants had fairly extreme cases and complications. Josephine had a C-section, and had to go back into the hospital for a week just two weeks after the baby was born due to a severe postpartum infection. Josephine explained:

> I had a really large abscess internally and once they figured it out in the hospital, when I went home, I had a PICC (Peripherally Inserted Central Catheter) line inserted and my husband had to give me IV antibiotics and drain my abscess using the drain they had attached to it. There were a couple weeks of that, some MRI’s, and then two more months on the antibiotics.

Miriam also had an extremely complicated delivery of her twin babies:

> I hemorrhaged and passed out. I was unconscious on that operating table, and I had to have a blood transfusion, and I was on magnesium sulfate, because I had preeclampsia. I had so much blood loss that it took me weeks to be able to walk more than a block or two without needing to sit down.

Miriam also recalled:

> The sleep deprivation was so intense. For the first two years of their life, they did not sleep through the night. The first year, it was just like my whole world had imploded and I was so tired. Postpartum was horrible. I had chronic back pain and diastasis from where my stomach muscles had split open. Even when my kids were asleep, I couldn’t sleep ‘cause my back hurt so badly the first year.

In addition to fourth degree tears, Ann also suffered a massive postpartum infection that took some time to diagnose, and really was never properly treated. Ann told

her doctor that she was in extreme pelvic pain and felt like "someone is beating me with a baseball bat down there," and she had a 103 degree fever and high blood pressure (her blood pressure is normally low). The doctor did blood work, gave her an antibiotic shot in case she had an infection, and later called to confirm that Ann did have an infection and was at risk for being septic. More antibiotics were called in, and she was instructed that if her fever rose even half a degree, she should go directly to the ER and be admitted for IV antibiotics because Ann cannot tolerate or absorb oral antibiotics well. Her fever hit 104 and her husband took her to the ER where the resident doctor wanted to know why she was not just taking Tylenol. Despite being shown the written instructions from Ann's doctor, and despite telling her that she was "right on the border of being septic," the doctor refused to admit her and sent her home without treatment. The oral antibiotics made her so sick that she was unable to eat for a week, because she would vomit everything back up. Additionally, her milk dried up from the whole ordeal, making it impossible for her to retain her breastfeeding relationship with her daughter. Ann recalls: "I don't remember the period from when I went to the ER to the 4th of July, so like a month, I just don't remember it. I was so sick, I would fall asleep for like nine hours at a time and wake up and not know what was going on." Ann told me that her pelvic pain had only subsided a month or so before our interview in either January or February, meaning that she had been dealing with this issue for seven to eight months with no resolution.

Patricia is another participant who had a difficult birth experience and postpartum recovery. She had an emergency C-section that resulted in a torn uterus, telling me:

> I lost a ton of blood and was almost a forced transfusion, but I was one minute away from their cutoff where I would have been required to get a transfusion, so I chose not to do it. Looking back, I probably should have, because recovery was just awful after that; it was awful.

Jane said she had a scary and difficult delivery with her firstborn. After 16 hours of labor, she told her nurses that her "stuff is burning" noting that with English as her second language, she did not know how to tell them any other way. The nurses checked her and confirmed that Jane was crowning and ready to push, but the doctor had gone home for the night. Jane had to wait 45 minutes for her doctor to get back to the hospital, so that she could push, but by the time the doctor got there, the baby's heart rate was dropping causing the doctor to intervene and "vacuum" the baby out. Jane says:

> I saw the doctor's face and she was in huge shock. I didn't have any tears outside, that burning sensation was because my birthing canal was just torn into pieces. The doctor cut me all the way down from my vagina to my butthole. She fixed the inside, and then she fixed the outside. I was very scared of pooping on the table during labor, so I was already constipated, and then after the delivery, I ended up not going to the bathroom for a whole week, because I was just freaking out--is this going to bust the stitches? It was horrible. Horrible. And you can't sit down, you need to nurse, and your breasts are cracking, and you can't sit down properly. It took a month to be able to walk properly.

Laurie also reported that she had some pretty bad tears from her nine pound five ounce baby. Despite significant pain, she had to return to classes two weeks after the baby was born. She states, "I was really uncomfortable and I had to bring that inflatable donut thing to sit on during class, which was embarrassing." Laurie's mom or husband

accompanied her to class every evening and stayed in the building with her daughter, so that Laurie could nurse her right before class, during the break, and then directly after class.

Kim sums up the dilemma faced by many postpartum mothers in school and in the workplace, telling me:

> I definitely had the worst year of my life. Physically, emotionally, mentally. That whole first year, I just wanted to say 'I just had a baby. Don't ask me to do anything.' At the same time, I want to be very feminist and 'Women Power!' and 'we can do everything and we can do it all!' but then I'm like, 'No, wait. Please, recognize how difficult this is.' Even when we have really supportive partners and families aren't even in the way. I had the perfect setup for a postpartum year, I had a very flexible job, I had my mom thirty minutes away, my husband is awesome, but it was still the hardest year of my life.

Postpartum Mental Health

Postpartum mental health problems such as anxiety or depression, were more prevalent than bad postpartum physical health; 27 participants (54%) struggling with their postpartum mental health. Graduate students are more than six times as likely than the general population to struggle with anxiety and depression (Evans, Bira, Gastelum, Weiss, and Vanderford 2018).Female graduate students report experiencing more stress and distress than their male counterparts (Hodgson and Simoni 1995). It is not surprising that the majority of participants reported mental health issues during the postpartum period. Universities need to make sure they are providing adequate mental healthcare access to their students in general, but especially to postpartum students who are already a high-risk population for dropping out (Gardner 2008; Lynch 2008).

Among the mental health issues mentioned by participants, postpartum depression and postpartum anxiety were common. Several participants mentioned babies that were especially needy or demanding, lack of sleep, and relationship problems with their partners as being contributors to their mental health problems.

Daisy experienced postpartum depression for the first nine months and is still on antidepressants and cannot imagine not being on them. She said, “It was horrible. I was so depressed. For about three months, I was barely functioning.” Daisy’s mother stayed with her for the first four weeks and her husband stayed home the next two weeks so she had someone to help her the first six weeks but she revealed, “When my husband went back to work, I had a really hard time functioning and taking care of my baby.” Diana stated her mental health was “not great” and that she was “so severely sleep deprived, completely overwhelmed, and very angry.” Diana’s baby had reflux and was “incredibly needy” and did not sleep much and Diana was unsure if she would be able to finish her dissertation and was “realizing the weight of her new life situation.”

Julia reported “a little bit of anxiety,” as did Allison, recalling, “I was just very stressed and overwhelmed. Our son had a lot of reflux issues that made him cry a lot and was kind of isolating. Mentally and emotionally, it was very difficult [without] any significant support system in place.” Anneliese also had postpartum anxiety and depression. Cecelia wonders if she had postpartum depression but said she was never formally diagnosed: “I never really did anything other than cry a lot. It probably took a

good three or four months before I felt, 'I'm okay, I got this.'" Jean recalled, "it was all kind of a blur and haze of trying to figure things out. I definitely wasn't in the mental state to be thinking about anything for the first couple of weeks." May said, "Looking back, I think I had a touch of postpartum anxiety."

Mary said her mental state "was all over the place, aloof, confused. I think I haven't recovered fully from it yet. Pregnancy definitely took a toll on my mental state. I'm a lot more emotional and not as energized. I was very stressed out with the research process, not feeling fully myself." Rose found that she "had some depression issues the first time around. It was really, really difficult. I found the first several months to be very difficult. I went on antidepressants about a month postpartum and have been on them since then." Kim recalls that as the "worst year of my life. Having a baby, you're supposed to be so joyful. I had lots of depression, lots of anxiety, obviously no sleep, lots of skin problems from stress. It seemed like one thing after another."

Maddie told me: "I started my pregnancy in sort of a mental health crisis. I had lots of mental health support in place so I'd been working with a reproductive psychiatrist. I had a mental health counselor and lots of people with training to make sure I was being screened and watched." Sheera stated, "My mental health really fell apart. I was never diagnosed with postpartum depression but the lack of sleep, plus the sense that I wasn't moving forward with my life really sent me into a spiral with both pregnancies." And Maria remembered: "I was exhausted and emotionally, it was just too much for me.

My mental health was not great," yet, she refused antidepressants and never went to therapy, choosing instead to "try to stay busy rather than remain depressed." Katherine also refused medication after her first baby despite the anxiety disorder that she had previously been diagnosed with which was exacerbated during the postpartum period. She did take medication after the birth of her second baby.

Louisa suffered two miscarriages, one of which was "extremely traumatic," and was diagnosed with PTSD in addition to postpartum depression and she divulged that being pregnant again with her rainbow baby was "truthfully terrifying--terrifying for me after [the losses and PTSD]." Louisa found that a lot of counseling and baby-wearing helped her get through the postpartum depression she experienced after the birth of her rainbow baby, calling it her "comfort baby" in the same sense that others might have a comfort animal. Louisa even wore her baby to class and taught while baby-wearing.

Relationship strain was a significant stressor on the mental health of five participants (10%), including Jane, Zora, Lena, Patty, and Miriam. Patty and Zora's marriages both ended in divorce. Access to family and marriage counseling either through the university or by ensuring low-cost options through insurance, is an important step forward in helping graduate student mothers negotiate their relationship strain.

Jane recalled being depressed for the first six to seven months postpartum. She experienced relationship strain with her husband, and still feels as though she is struggling with depression even now (several years later):

> I cried a lot and I was mad at my husband because I was like 'this is all your fault, this is your fault!' I just took my anger out on him. We didn't have sex for like six months after I knew I was pregnant so that was horrible. I didn't go out of the house, I just stayed at home. I didn't even email [friends and family in her home country].

Zora also reported relationship stress, depression, and stress from a looming deadline while her child was in the Neonatal Intensive Care Unit (NICU) for a month. She had to finish her writing to meet a deadline while her baby was in NICU and she dealt with the emotional turmoil of a failing relationship, a special needs child, and her own physical and mental recovery from childbirth. She said:

> My husband...oh Lord, I think one of the things was I realized how bad things really were at that points. He was feeling depressed and I really didn't know that. I thought he just needed to get over it. I definitely felt like he was emotionally abusive, saying I shouldn't have had the baby and stuff like that. It was hard. Emotionally, I was not fine. It was like a year and a half before I felt better.

Lena also experienced relationship stress in addition to some postpartum mental health issues and a lack of support. These issues were all exacerbated by a lack of support from her partner, "who just couldn't get it together to be a support. It was shitty."

She said:

> I remember having some pretty dark thoughts--not that I ever would have acted on them, just that, in retrospect, there was definitely some stuff going on in my head that was not typical, and certainly not ideal. I don't even think I was capable of recognizing it at the time because I was so rattled by hormones and the lack of sleep, just trying to figure out how to manage a baby.

Patty dealt with relationship strain in addition to depression:

> A lot of it [the depression] had to do with my marriage not being what it was supposed to be. It became really difficult trying to juggle going back since I

> started teaching again when my son was three weeks old and my ex-husband was taking care of our son just the couple of hours that I would be on campus but we couldn't afford child care the rest of the time.

Patty also recalled, "I was struggling with being a brand-new mother and doing all my coursework, prepping my lectures, grading, and taking care of my son full-time, which was, of course, not great for mental health."

Miriam experienced relationship strain, telling me:

> I had not allowed myself to actually believe that this pregnancy would result in two infants--I was really mentally unprepared for any of it. And around ten months postpartum, everything just fell apart. My spouse and I were very seriously talking about separating, and I just hated him and it all came to a head towards him.

After beginning therapy, Miriam's relationship with her husband improved and they are still together. Many participants also discussed breastfeeding issues as a source of mental health issues and stress, as discussed below.

Breastfeeding as a Source of Mental Health Issues and Stress. Breastfeeding issues and difficulties were prominent among participants and were mentioned specifically in the context of impacting their mental health, a finding that somewhat surprised me. While I knew many of the participants struggled with the various aspects involved with nursing their babies, I was surprised that breastfeeding came up as a significant source of mental stress for so many; 12 (24%) of the 50 participants specifically mentioned breastfeeding when asked about their postpartum mental health.

Bell said her daughter did not latch properly and was not able to maintain weight. Bell had to weigh her daughter on a food scale after each feeding. She also said she was isolated and felt really alone during that period and was battling "periods of sadness."

Carol also reported:

> Breastfeeding was extremely difficult and we ended up choosing to do exclusive pumping and bottle feeding with formula supplement to make up for the low supply. That was all very stressful. The level of stress of your world changing was really difficult. Looking back, I think I did have bouts of postpartum depression, it was very hard emotionally to get myself sorted out.

Stephanie mentioned breastfeeding issues, latching problems, and lack of weight gain for the baby as stressors. Laurie and Jane both mentioned difficulties with their babies not getting enough milk and Marie told me that her son had various sensitivities to her breastmilk which required her to make several diet changes in an attempt to figure out what was bothering him. Zora experienced breastfeeding problems with her special needs child who spent a long time in NICU, and Patricia revealed that because of her torn uterus and massive blood loss, her milk did not come in, contributing to some postpartum depression. When discussing her physical health, Ann also mentioned that her milk had dried up as a result of the pelvic infection she had postpartum and noted that breastfeeding her daughter was something she wanted to do. Sophia said: "Breastfeeding was going so poorly, that was very stressful, and I was worried about the possibility of postpartum depression so I started seeing a therapist." Sophia was grateful for the free

counseling center on campus but did add that having to commute to campus was not the most convenient for a newly postpartum mother living off-campus.

Bonnie had trouble finding a good nursing position that did not hurt her back because she had bulging disks from delivery. Bonnie's baby was also colicky: "I didn't know how to deal with the colic, it was really terrifying and really confusing." And finally, Julie said:

> Emotionally it was difficult and I had trouble nursing at first. I basically got every problem you can get with nursing, mastitis and blocked milk ducts. There were days where I was spending the whole day lying in bed trying to nurse him in different positions to try to get the milk to empty out. That was more disruptive than I thought it would be. It definitely took longer than I expected just to be at a level where I felt functional, even in terms of caring for a newborn and getting enough sleep.

DISCUSSION AND RECOMMENDATION

I have presented various obstacles faced by pregnant and postpartum graduate student mothers. There are many ways that universities and individual departments can support their pregnant and mothering graduate students and I have gathered some suggestions into a list that could be utilized by departments and institutions regarding the needs of pregnant and mothering graduate students. Many of these suggestions would also help undergraduate students who are pregnant or mothering. In addition to supporting students, universities also need to support faculty and staff members who are parenting. Given the paucity of women (Mason et al. 2013) who are mothers in the ranks of tenured or tenure-track faculty and in distinguished administrative positions such as

Deans and Vice Presidents, it is particularly important to support our pregnant and mothering faculty members. Losing well-qualified and trained women graduate students and faculty members because academic life is incompatible with motherhood results in a brain-drain in the academy and ultimately harms our universities, right down to the undergraduate students. Representation is important. Academics talk about the importance of diversity on college campuses and how important it is for students to see people like themselves working at the university because it helps them to envision themselves in that world (Hurtado and Ruiz 2012; Stewart, Malley, and Herzog 2016). We are doing our students a great disservice by not including mothers among those with important roles in diversifying our campuses.

Based on the data presented in this dissertation, the following are some suggestions that can help universities and departments better support pregnant and mothering graduate students--while noting that many of these overlap with the needs of undergraduate students and faculty members:

1. Family-friendly policies in the classroom, the departments, and the university help students know whether or not their children are welcome to attend an event. Further, a statement in a syllabus about whether or not children are welcome in your class is really helpful for a student who is debating having to skip class because they don't have child care. For example: "Parenting students, child care emergencies happen to the best of us. Please know that if

you occasionally need to bring your well-behaved child to class due to such an emergency, you are welcome to. If your child begins fussing or causing a disruption, out of respect for your fellow students, please take them into the hallway until they are able to return. Please be aware that we sometimes discuss sensitive subjects in class and it will be your decision whether or not your child is okay to overhear them."

2. Universities need formal policies regarding maternity leave. These should be published so students are aware of their rights as soon as they become pregnant. Those formal policies need to be advertised and disseminated to students so they are able to easily find the information.
3. Paid maternity leave for those students with an assistantship would be the best practice; however, barring that as a possibility, students need to be able to take the amount of leave their doctor would like them to without losing their assistantship and without losing access to their healthcare. Students taking medical leave for any reason, but especially because of pregnancy, should not have to worry about losing their health insurance in addition to losing their income.
4. A center or resource office dedicated to student parents so there is a central location for students to find the information they need regarding various resources available to them as student parents.

5. Lactation spaces need to be widespread across campus. There should be one, ideally, in every building on campus, but definitely no more than a five minute walk from anywhere on campus. Breast pumping takes time and when students have to spend fifteen minutes walking to pump and walking back, a pumping session can easily end up taking an hour or more. This becomes particularly inconvenient when a mother needs to pump every two to three hours. The lack of adequate lactation spaces serves as a barrier for nursing mothers.
6. When designing a lactation space, in addition to convenience, comfort and hygienic needs should also be taken into account. There should be a comfortable chair, a side table, a sink with *hot* water to wash pump parts, soap, paper towels, a small fridge for storing milk if needed, an outlet to plug the pump into, and privacy. Having the ability for more than one person to pump at the same time but also have privacy by using privacy panels or privacy curtains would also be helpful.
7. Flexibility in scheduling classes and meetings. Be cognizant of the needs of student parents who may be unable to teach or take an afternoon or evening course because they have to pick their child up from school or need to help with homework, dinner, bath time, and bedtime.

8. Living wages are desperately needed for parenting students. The model of the single male graduate student who only needs a small stipend to live on needs to be recognized for what it is--antiquated.
9. Access to affordable, safe, flexible, and reliable child care is also one of the major things that will help mothering students be successful. Further, evening child care should be available for graduate students who must take night classes. Most daycares do not operate at night.
10. Consider subsidizing emergency child care. Some participants were able to call a service in the event of a child care emergency and the service would come watch their child(ren) for about $2 an hour. They had a limit on how many times a semester they could use the service but it was really helpful for the students. Perhaps universities could even look into a service like this that was available all the time for parenting students.
11. Be aware that any compulsory attendance policies may disadvantage graduate student mothers by unfairly punishing them when they need to stay home with a sick child or attend an event at their child's school. If they choose to attend class rather than take care of their sick child or attend their child's play, they may be faced with criticism of their commitment to mothering their child. If they choose to stay home with their sick child or to attend the school event, their commitment to the academy is called into question and allows others to

question their competency and dedication to school. It should be noted that in both of these situations, a mother is socially punished in ways that a father would not be. A father who had to attend class rather than tend to his children is seen as simply doing what a man does--taking care of his family through obtaining education. A man that chose to stay home with a sick child or attend a child's school event instead of class would be seen as an outstanding father and his dedication to his degree would seldom be called into question.

12. Offer access to a food pantry or mobile food truck that will provide students with fresh vegetables and fruits free of charge to offset food insecurity among students.
13. Student health centers should include access to comprehensive mother-friendly mental health care.
14. Desk space that graduate students can access around the clock is especially important for graduate student mothers, many of whom need a dedicated place to work nights and weekends when they are able to be away from their children.

This is not an exhaustive list of all measures that could be taken to better support pregnant and mothering graduate students and should only be seen as a starting point.

When we chase after a “cluster of promises” even if that object is “significantly problematic” and “toxic” to our own well-being, we are choosing to remain optimistic that our personal struggles will be worth the effort and result in a PhD at the end. For myself, and many of my participants, pursuing a doctorate degree fits Berlant’s definition of an object of cruel optimism. Berlant (2011) theorizes “any object of optimism promises to guarantee the endurance of something, the survival of something, the flourishing of something, and above all, the protection of the desire that made this object or scene powerful enough to have magnetized an attachment to it” (p. 48). We trudged along trying our best to endure, to survive, to flourish, and to protect our yearning to earn our PhDs while embracing our journeys as mothers as well.

CHAPTER V

CONCLUSION

SUMMARY

In *Cruel Optimism,* Lauren Berlant (2011) explores what happens when we are connected to an object that is "significantly problematic" (p. 24) and even "toxic" (p. 24) to our own well-being. Berlant (2011) writes, "Any object of optimism promises to guarantee the endurance of something, the survival of something, the flourishing of something, and above all, the protection of the desire that made this object or scene powerful enough to have magnetized an attachment to it" (p. 48). Indeed, pursuing a PhD is an exercise in endurance and survival, and for a few of us, flourishing. For those of us who endure, survive, and flourish, there is, of course, the hope of success, of being protected by our new status as PhDs. Pregnancy and motherhood is also an exercise in endurance, survival, and hopefully, of flourishing. The hope is that the negative aspects of these objects of desire, meaning the pursuance of a PhD and motherhood, will still "allow the flirtation of *some* good-life sweetness to continue" (Berlant 2011:48, italics in original) and to "allow zones of optimism a kind of compromised endurance" (Berlant 2011:49). In other words, the promise of these objects of desire keeps us coming back for more--the hope that the labor involved with staying optimistic about the future will not be

canceled out by the work of maintaining the fantasy of the good life promised to us by the object of attachment (Berlant 2011).

The "cluster of promises" of a PhD at the end of this trial in endurance and survival became "foundations for optimism even when they [were] damaging" and forced the participants to carry on, clinging to the "unraveled life" with "the often cruel promise of reciprocity and belonging" (Berlant 2011:16). The participants found their commitment to earning a PhD outweighed their doubts, even if at times, that commitment seemed to come solely from a place of defiance and proving to others they were capable of accomplishing this feat.

In Chapter I, I briefly reviewed the literature on graduate student mothers, faculty mothers, and pregnancy in graduate school. I discussed the "baby penalty" and "fatherhood bonus" that defines life as a parent at every stage of the academic career (Mason and Goulden 2004; Mason 2013; Mason et al. 2014). Additionally, I discussed the biological realities facing graduate students whose years of peak fertility often coincide with their time in graduate school, as well as risks to mother and baby due to advanced maternal age (defined as over 35) associated with waiting until tenure is achieved (Mason et al. 2013). I briefly considered the potential for physical and psychological changes experienced by pregnant women and how this may impact their experiences of graduate school (Cook 2016; Martin and Redshaw 2010). Berlant's (2011) concept of "cruel optimism" was briefly discussed in the context of the pursuit of a PhD

and motherhood being obstacles to one another that keep graduate student mothers from flourishing. I also considered the need for formal policies at the university level for pregnant graduate students in order to avoid inequities across departments and within the same department.

In Chapter II, I discussed the research done to date involving pregnancies in graduate school, as well as the existing research on motherhood and university life. I examined previous studies that explore the role of motherhood in academia for graduate students and faculty members. I also discussed the literature on intensive mothering and what it means to be a "good" mother in American culture and how ideal motherhood often conflicts with the concept of a "good" graduate student.

In Chapter III, I presented the methodology and methodological approach for this project. I included an overview of the research design, procedures for data collection, information about the participants in the project, and a discussion of how I performed the analysis.

In Chapter IV, I presented the results of the study and a discussion of the findings. I suggest a variety of emergent themes to underscore the richness of qualitative data that provides insight into the social world of pregnant and mothering graduate students. I relied heavily on the use of direct quotes from participants in this chapter in order to honor the voices and lived experiences of the participants.

My participants gave vivid and vibrant descriptions of their lives both at home and in the academy and shared the challenges they have experienced as they navigated pregnancy and motherhood as graduate students, often without any institutional support. I intentionally relied heavily upon the interview transcripts in order to respect the voices and lived experiences of my participants in this chapter. Their stories confront and call into question the predominant rhetoric that claims "women are now equal participants in academia" (Ellis 2014:174).

LIMITATIONS

This study attempts to explore the subjective experiences of pregnant graduate students and the underlying theoretical problem: What is the status of pregnant and mothering graduate students at American universities? This study has several limitations:

1. Many participants were unaware of what supports or policies were available to them at their universities or how those policies may have impacted their experiences. It is possible that some universities had policies in place that my participants were not aware of. However, being unaware of existing supports or policies is likely reflective of a lack of communication from the university, an issue that several participants mentioned in their interviews.
2. I used a method of friendship and shared experiences to earn rapport with my participants; however, it is still possible that because participants were aware of

my role as a researcher, they may have been influenced by my presence. This is known as the "Hawthorne Effect" (McCambridge, Witton, and Elbourne 2014).

3. Participants may have attempted to manage their presentation of self and minimize the stigma of motherhood, even with me. They may have engaged in "face-negotiation" (Goffman 1959), worn the "mask of motherhood" (Maushart [1999] 2000), or worn what I termed the "superwoman cape of academia" in my thesis research (Ellis 2014).
4. Using semi-structured interviews and methods of conversational or interactive interviewing occasionally led to a question being skipped or not fully answered due to the flow of conversation. Participants sometimes brought up and answered questions on their own during the course of the conversation before I was able to ask them. This is, however, expected in this type of narrative research.

SUGGESTIONS FOR FUTURE RESEARCH

There are numerous opportunities for further research, including research into women who did not complete their programs, graduate student fathers, and the partners of pregnant and/or mothering graduate students. This would provide greater discourse regarding the demands of graduate school and parenting and how they are experienced. Including more non-heteronormative couples would also be helpful in expanding comprehension regarding negotiation of workload and awareness of the lives of graduate student parents. Further, exploring the perceptions of other graduate students and faculty

members regarding the competence and commitment of graduate student mothers and pregnant graduate students would help shed light on the stigma and challenges faced by pregnant and mothering graduate students. Future research should also explore the experiences of pregnant and parenting undergraduate and postdoc students.

POTENTIAL IMPACT

What is the potential impact of this work? How might it improve the experiences of pregnant and mothering graduate students while also benefiting the universities who have invested in their success?

I hope this study contributes to the small body of knowledge about pregnancy and graduate school and the challenges faced by pregnant and mothering graduate students. I would like to disseminate the results of this study to colleges and universities to encourage them to create formal policies regarding pregnancy and maternity leave, not just to benefit their students but also to protect themselves. If universities refuse to institutionalize family-friendly policies for graduate student parents, graduate student mothers will continue to occupy a place of marginalization and discrimination within the academy (Gouthro 2002). They will continue to face policies that disproportionately negatively impact their lives, their educations, and their families as they serve as "indentured servants" (Williams 2002) within the academy and as unpaid workers in their own homes.

It is my hope that by telling their stories, I can shed light on their plights and encourage universities to do their parts to lessen the structural, institutional, sociocultural, personal, and familial barriers these women face. Further, if accommodations continue to vary across departments and even within the same departments due to a lack of formal policy, I foresee trouble ahead in terms of discrimination and Title IX lawsuits.

When one student is treated vastly differently from another in the time following the birth of their child, as Patty was, these discrepancies could potentially open the university up to a discrimination lawsuit or a suit regarding Title IX violations. Most schools do not consider assistantships to be covered by Title IX; however, the requirement that a student is only eligible for an assistantship if they are enrolled in either coursework, thesis hours, or dissertation hours suggests that their assistantship is dependent upon and entangled with their student status. Students typically receive low stipends based on an assistantship being a form of training or internship, furthering the dependence of the assistantship on the student status. According to Subpart D-Discrimination on the Basis of Sex in Education Programs and Activities Prohibited (U.S. Department of Justice 1980), Section 106.40 Marital or parental status, (1) states:

> A recipient shall not discriminate against any student, or exclude any student from its education program or activity, including any class or extracurricular activity, on the basis of such student's pregnancy, childbirth, false pregnancy, termination of pregnancy or recovery therefrom, unless the student requests voluntarily to participate in a separate portion of the program or activity of the recipient.

Section 106.40 (4) states:

> Recipient [of federal funding] shall treat pregnancy, childbirth, false pregnancy, termination of pregnancy and recovery therefrom in the same manner and under the same policies as any other temporary disability with respect to any medical or hospital benefit, service, plan, or policy.
>
> Section 106.40 (5) says:
>
> In the case of a recipient which does not maintain a leave policy for its students, or in the case of a student who does not otherwise qualify for leave under such a policy, a recipient shall treat pregnancy, childbirth, false pregnancy, termination of pregnancy and recovery therefrom as a justification for a leave of absence for so long a period of time as is deemed medically necessary by the student's physician, at the conclusion of which the student shall be reinstated to the status which she held when the leave began.

Universities attempting to fire a graduate student from their assistantship for getting pregnant could, therefore, be guilty of a Title IX violation. With this in mind, it only stands to reason that Title IX should also be relevant for medical leave after childbirth for students who have an assistantship. This means a student who has just given birth should not be forced back into the classroom to teach, either face-to-face or online, until their doctor has given them clearance. They should be permitted to recover for as long as their doctor deems it medically necessary, per the policies cited above from the Department of Justice.

Without family friendly policies in place, without structural supports such as mentors, affordable child care, training, and better financial support, high attrition rates among graduate student mothers will continue and success will be limited to those with outside support such as financial assistance, resources, and child care. The academy puts forth a lot of money, time, and efforts into training graduate students, therefore, it not

only harms those students, it also harms the university when women leave the academy. The incompatible and unrealistic expectations faced by graduate students, especially mothers, is forcing them from the academy, costing the university time, money, talent, and diversity as those disenfranchised students flee to other industries where there is better work-life balance and they are better compensated.

It is my hope that as I continue to tell my participants' stories, structural changes will be made that will support graduate student mothers rather than punish them and will allow them to achieve their goals and flourish. It is time that we remove the cruel optimism faced by graduate student mothers.

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APPENDIX A

Researcher Reflexivity

I am a white, working-class mother of five and I am in my late 30's. I became interested in the subject of pregnancy and childbirth in graduate school after having two of my own pregnancies during graduate school. I struggled with some pretty major health problems during my pregnancies and had some difficulty keeping up with the workload. It was through my own experiences that I began exploring what pregnancy and childbirth are like for women at other institutions and where the idea for this research project was born.

My status as an insider in this group has shaped how I approached my research and analysis. Insider status can lead to advantages and disadvantages. There may have been topics raised by my participants that seemed typical to me so I did not explore them further. Someone holding an outsider status may have seen and interpreted some phenomena differently than I did, however, because of my status as an insider, I was also able to share parts of my own story with participants in order to further bond with them and create an environment of mutual reciprocation and trust. Carolyn Ellis (2004) states we should allow ourselves to be vulnerable in our work and to acknowledge how our lives have been affected in ways that are similar to that of the participants in order to better understand our participants. Ellis (2004) states, "good autoethnographic writing is truthful, vulnerable, evocative, and therapeutic" (P. 135) for ourselves, our readers, and our participants.

APPENDIX B

Interview Questions

Dissertation Semi-Structured Interview Questions: Giving Birth in the Ivory Tower

1. How old are you?
2. What is your racial/ethnic background?
3. How many children do you have and what are their ages?
4. What was your marital status at the time you became pregnant? What is your marital status now?
5. What is your sexual orientation?
6. Tell me where you stand in terms of your graduate education?
7. How would you describe your social class? (Low, middle, upper?)
8. At what point during your graduate education did you become pregnant?
    a. Tell me the story about finding out you were pregnant? How did everyone react to the news?
    b. Was your pregnancy planned or unplanned?
    c. Tell me about your experience being a pregnant graduate student.
    d. Was there ever a time that being a pregnant graduate student was an advantage?
9. How was your health during your pregnancy?
10. Were there times that you needed to miss class (either as a student or as an instructor) due to your pregnancy?
11. How supportive was your department in terms of your pregnancy related absences?
12. What were classes and your training experiences like during your pregnancy?
13. Were any accommodations made for you during this time?
14. How did your pregnancy affect your academic performance (such as grades, keeping up with deadlines and demands, attendance, etc.)?
15. If you teach for your department, how did your pregnancy affect your teaching abilities?
16. How were you feeling about yourself, your pregnancy, and your ability to function?
17. What things were helpful to you during your pregnancy?
18. What things were difficult or what obstacles did you face?
19. What could your department or university have done to help you during your pregnancy?
20. Did you have a maternity leave? How did that work?
21. How soon after having your baby did you begin to work again and attend classes again? How were you feeling at that time?
22. Did your department or university have formal or informal policies in place regarding pregnancy related absences or maternity leave?
23. How did things change for you in your program once your baby was born?

24. Who handles the primary day to day care of your child/children?
25. What are/were your concerns about being a mother and a graduate student?
26. What kind of support system do you have? Who helps you in terms of advice, child care, finances, illness, etc.?
27. What were/are your child care arrangements?
28. When and how do/did you get your academic work done?
29. How has your overall attendance in school been since you have become a mother?
30. Did you miss class because of your child(ren) (due to daycare reasons, financial reasons, sick children, etc.)?
31. When you missed class due to the reasons we just spoke about, how understanding or considerate were your professors?
32. What is your sense of how pregnant students or mothers are viewed or evaluated by both fellow students?
    a. By faculty?
    b. And (if you teach) by your own students?
33. Are there any university policies that you feel helped your success as a mother in graduate school?
34. Are there any university policies that you feel hindered your success as a graduate student?
35. What advice would you like to give to graduate departments or graduate schools and universities about supporting pregnant graduate students and mothers?
36. If you were mentoring a newly pregnant graduate student what advice would you give her?
37. Is there anything you would like to add?

APPENDIX C

Recruitment Flyer

Are you a mother who experienced pregnancy and have given birth while enrolled in graduate school and within the last five years?

This is an invitation to participate in a voluntary research project and have your voice heard!

Faculty women and mothers in the academy are frequent research topics. Pregnant graduate student mothers have had a limited amount of research on them and the research that has been done has ignored non-white mothers and been very limited in scope. This research is seeking to fill the gap on research on graduate student mothers who have experienced pregnancy during graduate school. Part of the goal of this research is to intentionally make sure that the voices of mothers of color are included alongside the voices of white mothers. The purpose of this study concerns the experiences and perceptions of formerly pregnant graduate student mothers in dealing with pregnancy, giving birth, and graduate school.

This is an ethnographic study of graduate students who have been pregnant and given birth while in graduate school and within the last five years.

This study will be conducted by Erin Graybill Ellis, a doctoral student at Texas Woman's University. Her research interests include medical sociology, motherhood, and women and children's health.

Research questions include:

How did graduate departments handle pregnancy related absences for doctor visits, emergencies, and maternity leave?
What do pregnant graduate student mothers and those that have recently given birth need?
In what ways was the student facilitated or hindered by their graduate program's reaction to their pregnancy and birth related absences?
What formal or informal policies are in place at the student's university to guide decisions about pregnancy and birth related absences for graduate students?

What's in it for you?

As a participant in this study, you'll have the opportunity to share your experiences, make suggestions for institutional, departmental, and domestic changes. There are no direct benefits to participating in this study.

Get in touch today to schedule a face-to-face or telephone interview!

Erin Graybill Ellis
Email: pregnantgradstudentstudy2017@outlook.com
Phone: 817-891-1216

There is a potential risk of loss of confidentiality in all email, downloading, and internet transactions.

APPENDIX D

IRB Approval Letter

Institutional Review Board
Office of Research and Sponsored Programs
P.O. Box 425619, Denton, TX 76204-5619
940-898-3378
email: IRB@twu.edu
http://www.twu.edu/irb.html

DATE: December 1, 2017

TO: Ms. Erin Graybill Ellis
Sociology & Social Work

FROM: Institutional Review Board (IRB) - Denton

Re: Approval for Giving Birth in the Ivory Tower (Protocol #: 19852)

The above referenced study has been reviewed and approved by the Denton IRB (operating under FWA00000178) on 11/30/2017 using an expedited review procedure. This approval is valid for one year and expires on 11/30/2018. The IRB will send an email notification 45 days prior to the expiration date with instructions to extend or close the study. It is your responsibility to request an extension for the study if it is not yet complete, to close the protocol file when the study is complete, and to make certain that the study is not conducted beyond the expiration date.

If applicable, agency approval letters must be submitted to the IRB upon receipt prior to any data collection at that agency. A copy of the approved consent form with the IRB approval stamp is enclosed. Please use the consent form with the most recent approval date stamp when obtaining consent from your participants. A copy of the signed consent forms must be submitted with the request to close the study file at the completion of the study.

Any modifications to this study must be submitted for review to the IRB using the Modification Request Form. Additionally, the IRB must be notified immediately of any adverse events or unanticipated problems. All forms are located on the IRB website. If you have any questions, please contact the TWU IRB.

cc. Dr. Celia Lo, Sociology & Social Work
Dr. Jessica Smartt Gullion, Sociology & Social Work
Graduate School