Who's in and for how much?
The impact of definitional changes
on the prevalence and outcomes of cohabitation

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Cohabitation is becoming an important family form in the lives of children. As the proportion of non-marital births to cohabitors has increased (Bumpass and Lu 2000), so too has the proportion of children who will live in a cohabiting parent household following their parent's divorce. Consequently, recent estimates suggest that between one-quarter and two-fifths of all children will spend part of their childhood in a cohabiting parent household (Bumpass and Lu 2000; Graefe and Lichter 1999). And recent research indicates that cohabitation is a meaningful institution in the lives of children (Smock and Manning 2004).

However it's not clear that researchers are using a common or even clear definition of cohabitation across these studies. In theory, cohabitation seems straightforward – a couple is either living together or they aren't. But in practice, it may not be so simple. Recent qualitative research implies that many young couples have difficulty determining whether they are "cohabiting" or not. Wendy Manning and Pam Smock (2003) describe a "slippery slide" into cohabitation during which couples maintain separate residences, spending part of the week living together – essentially migrating into cohabitation without having made a conscious decision to live together. So both residentially and in terms of relationship commitment, their cohabitation status is ambiguous.

Manning and Smock's findings raise many important issues regarding measuring and interpreting findings about cohabitation. Is/should cohabitation be a residential distinction that is achieved once a couple stays together at least a certain number of nights per week and at what number of nights should we consider someone cohabiting? Or does/should cohabitation also

consist of a subjective distinction – that the couple considers themselves "living together"? And how often do these distinctions agree?

And, specifically, should couples who are cohabiting part-time be included as cohabitors or as non-cohabitors? Currently it's unclear how and whether these couples are counted across national surveys. If they are a small group, how and where they are counted likely won't change our findings regarding cohabitation. But if they are as large as implied in the qualitative research, then it's important to know how they are and should be counted.

Using data from the Fragile Families Study, I will examine 1) the concordance between subjective and residence-based (number of nights) measures of cohabitation; 2) the prevalence of part-time cohabitation; and 3) whether part-time cohabitors have outcomes that resemble full-time cohabitors or non-cohabitors, or fall somewhere in between and deserve their own, unique identity. I will look at the last two questions using both subjective and residence-based measures to see if the findings change depending on the measure used. And I will do this using a sample of recent parents, as much of the recent research on cohabitation is focused on its effects on children.

I. BACKGROUND

Because of the dramatic increase in the prevalence of cohabitation over the past several decades, research on cohabitation progressed at a rapid pace over the 1990s and early 2000s. Early work focused on the characteristics of cohabitors and cohabiting unions, typically comparing cohabitation to the institution of marriage. In the mid-1990s, Nock described cohabitation as an "incomplete institution," a term Andrew Cherlin (1978) had coined years earlier to describe the qualities of remarriages, because it lacked social norms and even common

terminology to refer to one's partner (Nock 1995). Research also revealed that cohabitors differed from married couples on a number of dimensions, including relationship satisfaction and commitment, as well as in their relationships with parents.

Roughly a decade later, Manning and Smock (2003) find, that for a number of reasons, cohabitation is still a fuzzy institution. For instance, despite the increasing prevalence of cohabitation, cohabitors still don't have a common term to refer to one's partner and many do not affiliate with the terminologies used in large-scale surveys. In interviews, couples were unclear what was meant by terms such as "unmarried partner" and would not characterize their relationship using that terminology (Manning and Smock 2003).

Couples also described having moved in together without necessarily having decided to "live together." Therefore, many couples may be residing together, but not consider themselves "cohabiting." It's important to consider how we would ideally like to count these couples in our estimates of cohabitors. The residential distinction is important in that it may signal sharing of resources and exposure to shared children (if there are any). However, if the couple doesn't consider themselves "cohabiting," perhaps this signals a lack of investment in their joint relationship -- implying a different institution of cohabitation than for couples who do consider themselves living together.

Perhaps most importantly, couples often described moving in together as a process, rather than a discrete event. This raises the question, at what number of nights during this gradual process do couples shift from visiting to cohabitating? Part-time cohabitors, by definition, have attachments to multiple households and therefore may have difficulty deciding whether they "count" as a member of a particular household. For example, qualitative work describes the attachment of African-American fathers to the households of their children, mothers and sisters

(Sams-Abiodun and Sanchez 2003), perhaps making it difficult to determine whether they are "cohabiting" with a romantic partner or not. The attachment of individuals to multiple households has always been a concern of household surveys, particularly the U.S. Census, but as yet no one has examined how this phenomena impacts our measurement and findings regarding cohabitation.

The complications of terminologies, multiple residences, and cohabitations by default rather than by design suggest that cohabitation measurement may be very sensitive to question wording. In fact, from previous research, we know that cohabitation measurement is sensitive to how one asks the question. We observe even within person/wave variation in reported cohabitation depending on whether the question is framed in terms of household membership (residence-based) or a romantic relationship (more subjective assessment) (Casper and Cohen 2000; Teitler and Reichman 2001).

It's not clear that there is one correct way to define cohabitation. The definition will likely depend on the goal of the particular survey or analysis. For example, labor surveys, such as the Current Population Survey, are very stringent in their criterion for being a household member to avoid double counting members of the population. However, even among family surveys there are different criteria for being counted as a cohabitor and the definitions are a mix of residence-based and subjective distinctions. Some surveys try to restrict cohabitors to only those living together full-time (e.g., NSFG – Cycle 5 uses a "male partner" code on household roster and household members are restricted to those "who live and sleep here *most* of the time"). Other surveys attempt to include at least some couples living together part-time as cohabitors (e.g., NSFH-1 uses a "lover/partner" code on the household roster and household members include "everyone who stays here half the time or more"). While other surveys provide no

guidelines regarding the amount of time required to be a cohabitor (e.g., NLSY asks "Are you currently living as a partner with someone of the opposite sex?"), leaving it up to individuals to self-select into cohabitation or not.

If part-time cohabitors are a small group and/or resemble full-time cohabitors in attitudes, behaviors, etc, then it doesn't matter where we put them. However, no one has determined what proportion cohabitors live together less than full-time, or whether or not couples in part-time cohabitations resemble more "traditional" cohabiting couples or are more like dating couples. For instance, does engaging in a cohabitation part-time reflect looser ties – in terms of lower relationship quality or no/uncertain plans to marry – or does it reflect logistical issues in defining relationships such as sharing a parental home, conflicting work schedules, or an early stage in a relationship? Or part-time cohabitation could reflect ambivalence about cohabitation before marriage among couples in which one or both parents have traditional values.

Who we count as a cohabitor will certainly impact estimates of cohabitation's prevalence, but how much is an empirical question. Who we count could also effect key outcomes of interest. For example, outcomes that are exposure-based such as pooling finances and father-involvement may vary greatly depending on how many nights one spends in the household. The outcomes I will focus on for this paper are – pooling finances, relationship quality and union transitions, and father involvement. However, there are other measures, such as poverty, social support, and child outcomes that may also be effected.

II. DATA AND METHODS

I use data from the Fragile Families and Child Wellbeing Study because it contains multiple questions about cohabitation answered in degrees, rather than simply a dichotomy,

which allows me to look at the prevalence of part-time cohabitation and the correspondence between subjective and residence-based reports of cohabitation. The Fragile Families Study is a longitudinal study of a birth cohort from the late 1990s. The data are representative of births in large, urban areas (as the sampling frame was limited to cities of 200,000 people or more) in 1999. See Reichman et al (2001) for more detail on the sample design. The sample of approximately 5,000 births, with an over-sample of non-marital births, makes it ideal to study cohabiting parents.

Baseline surveys were conducted from 1998-2000, at the birth of the focal child. First follow-up interviews were conducted approximately one-year following the baseline interview, and second follow-up interviews occurred around the child's third birthday. The response rate for baseline unmarried mothers was eighty-seven percent yielding a sample of 3,712 unmarried mothers. Of these mothers, 89 percent responded to the one-year follow-up survey and 85 percent responded to the three-year follow-up survey. Eighty-one percent of mothers responded to both the one- and three-year follow-ups.

For my analysis of prevalence, I will use mothers unmarried at the child's birth who have interviews at both the baseline and one-year follow-up and who are in the randomly selected cities (N=2,364). The analysis is limited to only 15 of the 16-cities for whom all of the necessary questions were asked (N = 2,143). For the analysis of outcomes, I will further limit the sample to only mothers unmarried at the one-year follow-up and still romantically involved with the child's father (N=1,046). Cases missing on individual items are only excluded from the particular measure. In no instance did the percent of cases missing exceed *X% (ME: CHECK).*

Results in this paper are weighted to be representative of births in large cities in 1999 and account for survey design effects (including strata, city, and hospital). I look only at cohabitation

with the focal child's father since that is what I have the most complete data on – therefore these results do not represent all cohabitations among these parents. In my sample, 5 percent of mothers are cohabiting with new partners at the one-year follow-up, representing 11 percent of all cohabitations.

A. Measuring cohabitation

I use measures of cohabitation at the one-year follow-up as this is when mothers were asked cohabitation in degrees, rather than simply as a dichotomy. At the one-year follow-up, mothers were asked "What is your relationship with father now? Are you married, romantically involved, separated/divorced, just friends or not in any kind of a relationship?" Mothers who said they were married or romantically involved were then asked "Are you and (father) living together: all/most of time, some of time, rarely, or never?" This is the first measure of cohabitation I will examine and I will refer to it as the "subjective" measure of cohabitation. Mothers were then asked "How many nights a week do you and father usually spend the night together?" and allowed to answer zero through seven nights. This is the second measure of cohabitation I will examine and I will refer to it as the "residence-based" measure of cohabitation.

B. Measuring demographics, relationship quality, pooling, and father involvement

After looking at how the prevalence of cohabitation (full- and part-time) differs depending on the definition used, I will compare full-time cohabitors, part-time cohabitors non-cohabiting couples ("dating") on measures of relationship quality, union transitions, pooling finances, and father involvement. I will examine the bivariate differences across the measures. I

will present chi-square statistics for differences in categorical measures and t-tests for differences in means of continuous variables. I will compare the differences in means/distributions of part-time cohabitors and full-time cohabitors and between part-time cohabitors and dating couples to see if part-time cohabitors have similar outcomes to either group.

The measures of relationship quality I examine are partner supportiveness, partner disagreement, controlling behavior, domestic violence, and overall relationship quality. Partner supportiveness is measured by the mother's report about the frequency that the father exhibits six types of behaviors: 1) "is fair and willing to compromise when you have a disagreement," 2) "expresses affection or love toward you," 3) "insults or criticizes you or your ideas" (coding was reversed), 4) "encourages or helps you to do things that are important to you," 5) "listens to you when you need someone to talk to," and 6) "really understands your hurts and joys." Response options were recoded to be "1 - never", "2 - sometimes", and "3 - often." The six items were averaged to obtain an overall supportiveness score (range=1 to 3), with higher scores indicating a greater level of supportiveness. The Cronbach's alpha for this scale is .83 and it has been shown to be related to later union transitions (Carlson, McLanahan and England 2003).

Partner controlling behavior is a three-item scale using the mother's report of the father's frequency of doing the following: 1) "he tries to keep you from seeing or talking with your friends or family," 2) "he withholds money, makes you ask for money, or takes your money," and 3) "he tries to prevent you from going to work or school." Response options were recoded to be "1 - never", "2 - sometimes", and "3 - often". The three items were averaged to obtain an overall controlling score (range=1 to 3), with higher scores indicating a greater level of controlling behaviors. The Cronbach's alpha for this scale is .67.

Partner disagreement is measured by a question that asks how often the couple argues about things that are important to the mother. Mothers respond on a scale of 1 always to 5 never. Domestic violence is coded as 1 if the mother reported the father slaps, kicks, or hits her with a fist or other object sometimes or often or that she was ever cut, bruised, or seriously hurt in a fight with her partner. Overall relationship quality equals 1 if the mother responded 'excellent' to the following question about her relationship with the child's father -- "In general, would you say that your relationship with him is excellent, very good, good, fair, or poor?" Mother's are coded as zero otherwise.

Union transitions are measured as of the three-year follow-up. I look at whether the couple has married or is no longer in a romantic relationship. Three-year follow-up data are available for 92 percent of my sample, so this portion of the analysis is limited to those cases. The three-year findings are unweighted.

Couples were asked how they pool their money. Mothers were allowed to respond to "Do you… 'each keep your own money separate,' 'put some of your money together but keep the rest separate,' or 'put all your money together.'" I will look at the distributions across this variable to see how couples pool their finances.

Finally, I will look at two measures of father involvement. Mothers were asked how many days in a typical week the father did different activities with the child. I will look at the number of days the father read to the child and the number of days the father played "inside with the child with toys such as blocks or legos".

III. RESULTS

A. Subjective versus residence-based measure of cohabitation

At the one-year follow-up, 11 percent of mothers unmarried at the child's birth had married, 48 percent remained romantically involved, and 41 percent were not romantically involved. Among mothers who were romantically involved, Table 2-1 shows that 75 percent responded that they were living together "all or most of the time" and 11 percent said they were living together "some of the time." But what does "some of the time" mean and how should we treat these couples in our analyses?

Table 2-1
Subjective measure of cohabitation
among mothers who are romantically involved

Are you and (FATHER) currently living together…	Percent
All/most of the time	74.5
Some of the time	11.1
Rarely	1.8
Never	12.6
Total	100%

N = 1,046

The Fragile Families survey includes an additional measure that looks at the number of nights per week the couple spends together. We can use this to determine what "some of the time" means. From Table 2-1a we see that, using this residential measure, the prevalence of part-time cohabitation is much higher. If we consider 2-5 nights part-time cohabitation, 23 percent of romantically-involved mothers are cohabiting part-time – roughly double the rate using the subjective measure.

Table 2-1a
Number of nights living together
among mothers who are romantically involved

How many nights per week do you and (FATHER) usually spend the night together?	Percent
0 nights	4.8
1	2.9
2	7.4
3	7.7
4	5.4
5	3.4
6	2.7
7 nights	63.8
DK/REF	1.9
Total	100.0

N = 1,046

Next I examine the correspondence of the subjective and residence-based measures for the full sample of romantically-involved mothers. If we look at a cross-tabulation of the two measures for romantically-involved mothers (Table 2-2), we see several interesting things. The first point is that in fact, the percent of mothers who are "living together" part of the time is much higher than the 11 percent who said they were living together "some of the time." The boxed area actually represents roughly 30 percent of romantically-involved mothers. The second finding is that there is clearly a subjective component to terming oneself "living together." While the patterns are fairly linear, couples living together the same number of nights respond in various ways to whether or not they are cohabiting. The final point is that the full-time designation seems pretty clear at 6 or 7 nights – most mothers within that grouping are fairly consistent in their reporting. As are the mothers who are not cohabiting -- at zero or 1 nights per week. It's the part-time group that answers inconsistently.

Table 2-2
Correspondence across cohabitation measures
Among mothers who are romantically involved

Nights/wk	All/most	Some	Rarely/ Never	Total	N
7 nts	97.8	1.9	0.4	100%	644
6	93.1	0.7	6.2	100%	23
5	*39.6*	*42.1*	*18.3*	100%	46
4	*50.2*	*30.0*	*19.9*	100%	66
3	*20.9*	*55.7*	*23.4*	100%	77
2	*32.2*	*21.8*	*46.0*	100%	82
1	*6.5*	*27.3*	*66.2*	100%	24
0 nts	9.3	2.9	87.8	100%	59
dk/ref	49.0	0.5	50.5	100%	25
Total	777	110	159		1046

Next I will construct measures of full- and part-time cohabitation and dating, using both the subjective and residence-based questions, to look at both the prevalence and outcomes of cohabitors to see 1) the prevalence of part-time cohabitation; 2) whether part-time cohabitors should be aggregated with full-time cohabitors or dating couples, or if they have their own unique identity; and 3) whether we come to the same conclusions with both subjective and residence-based measures.

To create the subjective grouping I take the columns as groups. I will create three groups – one from "all/most of the time," one from "some of the time," and finally the "rarely/never" group who I will term "dating" group. Second, I will create measures based on the residential measure -- grouping across the rows. I will take the 6 or 7 nights as my full-time cohabitors; 2-5 nights as my part-time cohabitors, and finally the 0 or 1 nights and those who didn't know how many nights as my "dating" group.

B. Prevalence of Part-Time Cohabitation

So, given the two sets of definitions, what is the prevalence of part-time cohabitation for *all* mothers, not just those who are romantically-involved. Using the subjective definition or the "some of the time" distinction, I find that 5 percent of all recent mothers are cohabiting part of the time (Table 2-3). And if we "counted" them as cohabitors, we would increase the cohabitation rate from 35 to 40 percent. However, if we did not consider "some of the time" cohabitation, we would roughly double the proportion of mothers who are dating.

Table 2-3
Prevalence of Part-time Cohabitation
for Mother's Unmarried at Child's Birth

	Percent of total
Subjective definition	
Married	11.4
Living together ALL/MOST of time	35.2
Living together SOME of the time	5.3
Dating	6.8
Not romantically-involved	41.3
Residential definition	
Married	11.4
Living together 6+ nights	31.4
Living together 2-5 nights	11.3
Dating	4.6
Not romantically-involved	41.3
N	2143

Notes:

Results are weighted to be nationally representative and account for survey design factors.

The classification matters even more using the residential definition – as 11 percent of recent mothers are living together part-of the time using this definition. Using the residence-based measure also decreases the prevalence of full-time cohabitation from 35 to 31 percent.

While the prevalence of part-time cohabitation is significant overall, it's particularly important for certain subgroups. Table 4 shows the prevalence of full- and part-time cohabitation and couples who are dating by race/ethnicity, age, and education. As you can see, regardless of how part-time cohabitation is defined, the prevalence is much higher for Blacks than for Whites or Hispanics. Using the subjective and residential definitions respectively, 8 and 16 percent of Blacks are cohabiting part-time, compared with only 2 and 7 percent of Whites. In fact, if we included part-time cohabitation as cohabitation, we would greatly reduce the observed gap in cohabitation rates across racial and ethnic groups, particularly using the residential definition. Therefore, the decision of where to include part-time cohabitors will impact racial and ethnic differences in cohabitation rates.

A closer examination of the responses across racial and ethnic groups (not shown) reveals that at each given number of nights per week spent together, Blacks are less likely than Whites or Hispanics to code themselves into a cohabiting category (either full-time or some of the time, depending on the number of nights). This suggests that we need to carefully examine the meaning of cohabitation for these groups and tailor our definitions accordingly – particularly when we are trying to examine differences across racial and ethnic groups.

If we look across educational categories, again regardless of the definition, we see that mothers with a college degree are much less likely to cohabit part-time than mothers without a college degree. Using the subjective and residential definitions respectively, we see that 1 and 2 percent of college-educated mothers are cohabiting part-time compared with roughly 5 and 11

percent of mothers in other education groups. However, the sample sizes for unmarried, college-educated mothers are fairly small.

In contrast, when we look across age groups, the prevalence of part-time cohabitation varies across age groups and by definition. Using the subjective measure, mothers aged 20-24 have the highest rates of part-time cohabitation (8 percent). Using the residence-based measure, mothers aged less than 20 and 30 or older have the highest rates of part-time cohabitation (14 and 12 percent respectively). It appears that young mothers and older mothers answer subjective and residence-based questions somewhat differently than mothers aged 20-29. Mothers under 20 and mothers 30 and older appear more likely to code a cohabitation that is less than 6 nights per week as an "all/most" of the time than mothers in their 20s. Therefore, how one treats part-time cohabitations will also affect the age distributions of cohabitation.

Table 2-4
Prevalence of part-time cohabitation for key subgroups, by definition

		Subjective			**Residential**		
	N	All/Most	Some	Dating	6+ nts	2-5 nts	Dating
White	*377*	45.3	1.8	4.0	41.2	7.2	2.7
Black	*1082*	26.5	8.1	9.2	22.3	16.4	5.1
Hispanic	*614*	41.6	3.6	5.4	38.1	7.6	4.9
LT H.S.	*826*	37.0	5.7	5.4	32.9	11.9	3.3
H.S.	*728*	35.3	5.2	6.7	31.7	11.2	4.2
Some coll	*520*	32.9	5.0	10.5	29.2	11.1	8.1
College degree	*66*	17.7	0.8	5.6	16.7	2.2	5.2
Age lt 20	*503*	33.8	4.2	6.7	29.1	13.6	2.0
Age 20-24	*913*	35.6	7.5	5.5	33.1	11.3	4.1
Age 25-29	*414*	35.5	2.3	8.5	34.1	6.7	5.6
Age 30+	*313*	36.3	4.8	8.2	28.7	12.2	8.4

C. Differences Between Full-Time and Part-Time Cohabitors and Dating Couples

To determine whether or not there are substantive differences between the part-time cohabitors and either full-time cohabitors or dating couples, I compare the bivariate means/distributions of relationship quality, union transitions, pooling finances, and father involvement using both sets of definitions. I test differences in characteristics between those cohabiting full-time only versus part-time only and part-time only versus dating and report statistical significance based on chi-sq tests for categorical variables and two-tailed t-tests of mean differences for continuous variables. First I will look at relationship quality measures, then union transitions, financial pooling, and, finally, father involvement.

Relationship quality

The first measure of relationship quality is partner supportiveness, which is measured by the mean of a 6-item scale that has shown to be related to later union transitions. Table 2-5 shows that, using the subjective definition, part-time cohabitors report lower levels of partner supportiveness than full-time cohabitors, but have similar levels to couples in dating relationships. However the differences in means are not large (.2 of a standard deviation). Using the residential definition, we find no distinctions in partner supportiveness across the groups. So using the residential definition, it wouldn't seem inappropriate to group part-time cohabitors with full-time cohabitors or dating mothers.

Table 2-5
Relationship quality, union transitions, pooling, and father involvement by cohabitation status and definition

	Subjective			Residential		
	All/Most	Some	Dating	6+ nts	2-5 nts	Dating
Relationship quality						
Partner supportive (mean)	2.67 *	2.59	2.61	2.67	2.63	2.60
Disagreement w/ partner (mean)	2.81 *	3.00	2.79	2.82	2.76	3.10 **
Partner controlling (mean)	1.13	1.14	1.12	1.14 ***	1.06	1.13 *
Partner hits/slaps (%)	4.0	1.8	7.1 *	4.3	3.9	5.1
"Excellent" relationship (%)	38.5 ***	15.4	23.4	38.8 ***	20.8	30.6
Union transitions						
At three-year follow-up[1]						
Married (%)	11.5 ***	4.7	7.5	12.8 ***	6.9	9.0
Dissolved (%)	25.5 ***	48.1	52.7	23.1 ***	40.6	43.0
Pooling finances						
Put all money together (%)	54.5 ***	16.9	15.1	55.9 ***	22.7	21.9
Father involvement						
# of days in typical week that father…						
Reads to child (mean)	2.86 ***	2.21	1.52	2.76	2.55	1.64 *
Plays with toys (mean)	5.65 ***	4.73	2.67 ***	5.74 ***	4.41	2.59 ***

Notes:
Chi-sq tests for categorical variables, t-tests for mean differences of continuous variables.
Stars represent differences between group and part-time: *** = p= .01; ** = p = .05; * = p =.10
[1] Three-year follow-up data available for 92 percent of the sample and are currently unweighted.

The next outcome is a question that asks how often the couple argues about things that are important to the mother. Mothers respond on a scale of 1-always to 5-never. Here we see part-time cohabitors again report lower relationship quality than full-time cohabitors, this time in the form of higher levels of disagreement. However, like partner supportiveness, this conclusion only holds for the first definition. And whereas part-time cohabitors look like daters using the subjective definition, this is not the case using the residential definition.

The next measure of relationship quality is whether the partner is controlling of the mother's behaviors. Here I present the means from the three-item scale. Using the subjective definition, we observe no differences in partner controlling behaviors across the three groups.

However, using the residential definition, we see that part-time cohabitors actually report lower levels of controlling behaviors than either full-time cohabitors or dating mothers.

The fourth measure of relationship quality is whether or not the partner sometimes or often hits/slaps the mother. Here we find that dating mothers have the highest reported domestic violence (7 percent) and that part-time cohabitors (2 percent) appear more like full-time cohabitors (4 percent) on this measure. In this case, the living arrangements could be the result of the relationship quality. Using the residential definition, however, there are no distinctions across the groups.

The final measure of relationship quality is whether or not the mother reports having an "excellent" relationship with the father. Using either definition, part-time cohabitors report overall relationship quality similar to dating couples, but different from full-time cohabitors. For example, using the subjective definition, 39 percent of full-time couples report having an "excellent" relationship, compared with only 15 percent of part-time cohabitors and 23 percent of dating mothers.

So in terms of relationship quality, I find mixed results regarding whether part-time cohabitors resemble full-time cohabitors or dating mothers. Using the subjective definition, part-time cohabitors have outcomes that resemble mothers who are dating more than mothers who are cohabiting full-time (with the exception of domestic violence). However, when I used the residence-based definition, I draw no clear conclusions about which group part-time cohabitors resemble most. It seems that the residence-based definition may be blurring the distinctions across the groups. As I move people who consider themselves cohabiting "all or most of the time" into part-time and dating categories using the number of nights spent together, we often observe "better" outcomes for these groups. Therefore, the subjective report of cohabitation may

be intertwined with relationship quality in such a way that the relationship quality outcomes line up nicely with the subjective definition, but not as well the residence-based definition.

Union transitions

Next I look at the relationships two years later to see what percent of the couples had married by the three-year follow-up. I have three-year follow-up data for 92 percent of the couples. For marriage, regardless of the way we construct our measures of full- and part-time cohabitation, full-time cohabitors are much more likely to have married than part-time cohabitors. And part-time cohabitors have similar rates of marriage to dating couples. For example, using the subjective definition, 12 percent of full-time cohabitors marry compared with 5 and 8 percent of part-time cohabitors and dating mothers, respectively.

Relationship dissolution follows the same patterns. While one-quarter of full-time cohabitors have broken up two years later, closer to one-half of part-time cohabitors and daters have broken up. Like with the relationship quality measures, we observe higher rates of marriage and lower rates of dissolution after moving some of the "best" cohabitors in part- time and dating groups using the residential definition, but in this case the differences between part-time and full-time cohabitors are so large that they remain statistically significant.

Pooling finances

Next I look at a measure of pooling finances -- the percent of couples who report that they keep all of their money together. Over one-half of couples cohabiting full-time keep all of their money together compared with only 17 percent of part-time cohabitors and 15 percent of dating mothers. So it is clear from this example that part-time cohabitors pool resources much

more like daters than full-time cohabitors and counting them as cohabitors would diminish the rates of pooling for cohabitors. Using the residential definition, we come to a similar conclusion regarding the differences between the groups. Part-time cohabitors are more like daters than full-time cohabitors in their pooling behaviors. However, again, we observe "better" outcomes for part-time cohabitors and dating mothers using the residential definition.

Father involvement

Finally I will look at two measures of father involvement. We might expect these measures to be more highly related to the actual amount of time the father is in the household versus the subjective classification of the couples' relationship status. First, using the subjective definition, we see that mothers report the mean number of nights in a typical week that the father reads to the child is 2.9 for full-time cohabitors, 2.2 for part-time cohabitors and 1.5 for dating mothers (NOTE: the p-value of the difference between dating and part-time is .106). So in this example, part-time cohabitors don't look like full-time cohabitors or daters. And using this subjective definition, there does appear to be a continuum of father-child involvement by the amount of time the father is in the household.

Contrary to what I anticipated, the continuum is not as clear using the residential definition, which is based on the number of nights spent together. Fathers living together 2-5 nights are as likely to read to the child as fathers living together 6 or 7 nights, but obviously there may be some selection in terms of who reads to their child.

If we look at a second measure of father involvement, playing inside with toys such as blocks, we see a much clearer continuum and it doesn't matter which way it's measured – the results are remarkably similar in both magnitude and differences. For example, using the

residence-based definition, mothers report that fathers living together full-time play inside with their child 5.7 days per week, compared to 4.4 days for part-time cohabitors and 2.6 days for dating mothers. Results from both father involvement examples suggest that subjective measures of cohabitation may capture outcomes that are exposure-based as well as a residential based measure of cohabitation.

Overall I find that the subjective measure of cohabitation and the number of nights measure operated similarly for measures of behaviors – union transitions, pooling and father involvement – in terms of the differences across the groups and at times in the magnitude of the outcomes. However the measures yielded somewhat different results for the relationship quality measures, as the number of nights measures dampened the differences between the groups. Given the consistency in findings across different types of outcomes using the subjective measure of cohabitation, is suggests it's a "better" measure of cohabitation than the residence-based measure.

D. What Else Can We Determine about Part-Time Cohabitors

So what can we tell about why these mothers are living together part-time? The relationship quality and union transitions results suggest that these are less committed and successful relationships. However it's likely that that there are different types of part-time cohabitors. For example, using some data about the cohabitation status at the child's birth demonstrates that some of these cohabitors are transitioning into full-time relationships and some out of full-time relationships. If I compare a retrospective report of cohabitation at the child's

birth (answered at the one-year follow-up) and compare it to the reported cohabitation one-year later, I find that roughly one-quarter of part-time cohabitors at the one-year follow-up have transitioned from a full-time cohabitation (all/most) to a part-time cohabitation (some) from the child's birth to one-year later. Nearly 40 were stable part-time cohabitors and about 35 percent moved "up" from living together rarely/never at the child's birth to "some of time" at the one-year follow-up.

And there are likely reasons beyond relationship quality for part-time cohabitations. As expected, more part-time than full-time cohabitors are living with parents or other adults. And I find that part-time cohabitors are more likely to report they work nights and weekends, so perhaps they are indeed living together "full-time" but have work conflicts that don't allow them to see each other every night.

Perhaps what we're most interested in knowing is how part-time cohabitors would answer a yes/no questions regarding cohabitation, which would inform us to what degree they are currently captured in our data. While I don't have a direct measure of this, I can "guesstimate" from comparing the yes/no question asked of mothers at the birth of the child ("Are you and father living together now?") compared to the retrospective question asked at the one-year follow-up about cohabitation at the child's birth. Among those living together "some" of the time at the child's birth (retrospective report), 40 percent had said "yes- cohabiting" at the baseline interview and 60 percent answered "no – not cohabiting." So, given recall discrepancies, etc, potentially one-half of part-time cohabitors are included in current estimates of cohabitation. Note, however, that in the Fragile Families survey, mothers were not given specific guidelines on how to answer the yes/no question (such as considering herself cohabiting if living together at least half of the time).

IV. DISCUSSION

For roughly 70 percent of romantically-involved mothers it was easy to determine if they were cohabiting. And these mothers are likely answering cohabitation questions as intended. But the remaining 30 percent of romantically-involved mothers who were living together less than full-time responded in various ways to questions about living together. Depending on which question I use, I observed part-time cohabitation rates between 5 and 11 percentage points. Therefore, how researchers choose to categorize this group or where this group sorts itself into a yes/no question could impact cohabitation prevalence estimates and outcomes, especially for Blacks and for mothers without a college degree.

Based on the comparisons across different outcomes, it appears that part-time cohabitors are more like couples who are dating than couples who are cohabiting all or most of the time, with only a couple of exceptions. The most substantial differences between part-time cohabitors and dating mothers were for measures of father involvement, but these differences could also be captured by incorporating a measure of exposure to the child in analyses of father involvement. This would seem useful for all fathers, as factors such as employment could be related to these outcomes and the exposure component doesn't necessarily need to be embedded within a measure of cohabitation. So it seems appropriate to group part-time cohabitors with daters but not full-time cohabitors based on the measures examined in this paper.

Finally, the subjective measure of cohabitation and the number of nights measure operated similarly for measures of behaviors – union transitions, pooling and father involvement – in terms of the differences across the groups and at times in the magnitude of the outcomes. However the measures yielded somewhat different results for the relationship quality measures

as the number of nights measures dampened the differences between the groups. Given the consistency in findings across different types of outcomes using the subjective measure of cohabitation, is suggests it's a "better" measure of cohabitation than the residence-based measure.

So what do these findings imply for data on cohabiting parents beyond the Fragile Families Study? First of all, the subjective nature of responses means that part-time cohabitors are likely included as cohabitors in some data sets and non-cohabitors in others. As we saw from the comparisons of the residence-based and subjective measures, it appears that the "best" cohabitors are likely the ones sorting themselves into the cohabiting group. While this means that they probably aren't dampening the effects of cohabitation too much on measures such as relationship quality, they could be exacerbating the differences between married couples and cohabiting couples on certain measures where we observed large differences across the groups (such as pooling and union dissolutions). But the magnitude of those effects depends on the percent that self-sort into cohabitation. Based on some evidence from the Fragile Families survey, roughly one-half likely sort into cohabitors and one-half into non-cohabitors.

Another implication of my findings is that blacks may be differentially represented as cohabitors across surveys with different definitions of cohabitation given their high rates of part-time cohabitation. For instance, patterns in the rates of cohabitation at the child's birth differ somewhat dramatically depending the data set used. Part-time cohabitation could be contributing to these discrepancies if Blacks are less likely be counted as cohabitors by survey designers or less likely to recall or count a part-time cohabitation in a cohabitation history. Moreover I actually find some evidence that Blacks self-sort into cohabiting and not-cohabiting categories differently than Whites or Hispanics. In my data, at a given number of nights per

week, Blacks were less likely than Whites or Hispanics to code themselves into a cohabiting category (either all/most or some).

V. CONCLUSIONS

The idea of cohabitation as a muddled concept is not new. Nock's (1995) work described cohabitation as an "incomplete institution" in terms of lower levels of relationship happiness and commitment, as well as worse relationships with their parents. Recent qualitative and some quantitative work is uncovering more detail about the characteristics of cohabitations and the diversity among them. But measurement is trailing in this regard. We need to consider improving the specificity of cohabitation measures because this paper provides evidence that measurement matters in terms of the prevalence and outcomes of cohabitation, and it matters differently across racial and ethnic subgroups.

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