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Fragile Families: Sample and Design

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This paper provides important background information on the Fragile Families and Child Wellbeing Study, and is the first and only paper to provide detailed information on the research methodology and sampling strategies employed. The bulk of the paper is devoted to a detailed description of the three-stage sampling process that was used to obtain a nationally representative sample of non-marital births in large US cities. First, it was necessary to sample cities that, collectively, were nationally representative and had maximum variation in policy regimes. Next, it was necessary to sample hospitals so as to be representative of non-marital births in each city. Finally, we sampled births in order to be representative of those at each hospital. The paper concludes with some general information about the study and a simple description of the baseline non-marital sample from the first seven cities.

The Fragile Families and Child Wellbeing Study follows a cohort of new parents and their children and provides previously unavailable information about the conditions and capabilities of new unwed parents and the well-being of their children. Past efforts have found it very difficult to characterize families with unwed parents and to analyze parent and child well-being within these families, mainly because there has been little success in collecting data on unwed fathers. We have discovered, however, that there is a "magic moment" right after the child's birth when unwed fathers are both present and willing to be interviewed. Thus, we initially interviewed both mothers and fathers in the hospital shortly after the birth of their children.

We have collected data on approximately 4700 births (3600 non-marital, 1100 marital) in 75 hospitals in 20 cities across the United States.[1] Although the process of obtaining access to so many hospitals has been quite labor intensive, as has the logistical coordination of the baseline data collection effort overall, our strategy of sampling births in hospitals has proven very successful. In nearly all of the cities, we have interviewed at least 75% of the unwed fathers—the group that is by far the hardest to recruit. Not only will our data on unwed fathers be more complete than those from previous surveys (i.e., many fewer missing fathers), we also will be able to compare the fathers we did not interview to those we did interview based on information provided by the mothers. Thus, as the study unfolds, we are producing much-needed data on unwed fathers that are rich, comprehensive, and nationally representative.

This paper provides important background information on the Fragile Families and Child Wellbeing Study, and is the first and only paper to provide detailed information on the research methodology and sampling strategies employed. In the next section, a brief summary of the project is presented. Section III discusses past research on unwed parents and their children and highlights important gaps that the Fragile Families and Child Wellbeing Study has been designed to fill. The sections following describe in detail the research design and sampling strategies used in this unique data collection effort. The paper concludes with some general information about the study and a simple description of the baseline non-marital sample from the first seven cities.

Overview of Project

The Fragile Families and Child Wellbeing Study addresses three areas of great interest to policy makers and community leaders—non-marital childbearing, welfare reform, and the role of fathers—and brings these three areas together in an innovative, integrated framework. The study follows a new cohort of (mostly) unwed parents and their children and is providing previously unavailable information on questions such as:

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[1] At the time of this writing, the baseline data from the last 13 cities have been collected, but not yet fully processed.

- *What are the conditions and capabilities of new unwed parents—especially fathers? How many of these men hold steady jobs? How many want to be involved in raising their children?*

- *What is the nature of the relationships between unwed parents? How many of these couples are involved in stable, long-term relationships? How many expect to marry? How many experience high levels of conflict or domestic violence?*

- *What factors push new unwed parents together? What factors pull them apart? In particular, how do public policies affect parents' behaviors and living arrangements?*

- *What are the long-term consequences for parents, children, and society of new welfare regulations, stronger paternity establishment, and stricter child support enforcement? What roles do childcare and healthcare policies play? How do these policies play out in different labor market environments?*

As indicated earlier, the total sample size will be 4700 families, made up of 3600 unwed couples and 1100 married couples. The new data will be representative of non-marital births in each of the 20 cities, and they also will be representative of non-marital births in US cities with populations over 200,000. Follow-up interviews with both parents take place when the child is 12, 30, and 48 months old. Data on child health and development will be collected from the parents during each of the follow-up interviews, and in-home assessments of child well-being will be carried out at 30 and 48 months. Child well-being measures overlap with those used in the evaluations of the Infant Health and Development Program, Early Head Start, the Teenage Parent Demonstration, and the Early Childhood Longitudinal Study—Birth Cohort 2000 (ECLS-B). In addition, several "add-on" studies, many of which involve extra interviews with subsets of respondents or the entire sample, are being developed and implemented. These include in-depth studies of child neglect, childcare, incarceration, infant and child health, and welfare reform.

The baseline questionnaires for mothers and fathers include sections on (1) prenatal care, (2) mother-father relationships, (3) expectations about fathers' rights and responsibilities, (4) attitudes toward marriage, (5) parents' health, (6) social support and extended kin, (7) knowledge about lo-

cal policies and community resources, and (8) education, employment, and income. Follow-up interviews gather additional information including (1) access to and use of healthcare and childcare services, (2) experiences with local welfare and child support agencies, (3) parental conflict and domestic violence, and (4) child health and well-being.

Background

Nearly a third of all children born in the United States today are born to unmarried parents. The proportions are even higher among poor and minority populations, at 40% among Hispanics and 70% among African Americans (Ventura et al. 1995). In some instances, the parents of these children are living together in a marriage-like relationship. In others, they have a close relationship but the father lives in a separate house-hold. In still other cases, the father has virtually no contact with either the mother or child. In our study we call these new parents and their children "fragile families," because of the multiple risk factors associated with non-marital childbearing and to signify the vulnerability of the relationships within these families. Major goals of the Fragile Families and Child Wellbeing Study are to learn more about the nature of the relationships within fragile families, to determine the extent to which the parents see themselves as families in the traditional sense of the word, and to understand the forces that pull these families together and push them apart.

The Fragile Families and Child Wellbeing Study is providing important new information on unmarried mothers. However, its major contribution is to describe the characteristics and capabilities of fathers in fragile families. Policy makers are particularly interested in two aspects of fathers' capabilities: their earnings capacity and their propensity for violence. These two factors are fundamental to the success or failure of recent welfare legislation, which has envisioned a greater role for non-resident fathers in supporting mothers and children.

Previous studies indicate that men who father children outside marriage are younger, less likely to have a high school degree, and less likely to attend college than men who father children within marriage (Garfinkel, McLanahan, & Hanson, 1998). Unwed fathers also work fewer hours per week and have much lower hourly wages than married fathers ($10 to $13, versus $21, in 1995 dollars). Not surprisingly, their average income also is much lower than that of married fathers--$15,000 to $25,000 for unwed

fathers versus $42,000 for married fathers. The difference is even more striking when we look at men in the lower tail of the income distribution: Garfinkel and his colleagues estimated that 40 percent of unwed fathers have annual incomes less than $7,000. Finally, unwed fathers report more disability, more depression, and more frequent drug and alcohol use than men who father children within marriage (Garfinkel, McLanahan, & Hanson, 1998).

Particularly important for the design of the Fragile Families and Child Wellbeing Study is the fact that most estimates of fathers' earnings and capabilities have been seriously limited because nonresident fathers are under-represented in national and local surveys. For example, in the National Survey of Families and Households (NSFH), which is arguably the best national data set for studying families and households, Garfinkel, McLanahan, and Hanson (1998) identified 9.6 million mothers as compared to 5.6 million fathers who reported having a child with a nonresident parent. This means that as many as 4 million fathers are either not represented or not identified in the NSFH. The problem is most serious for low-income fathers and for men who were never married to the mothers of their children (see Rendall, Clarke, Peters, Ranjit, & Verropoulou, 1997; Sorensen, 1995). The problem of missing fathers may be less severe in longitudinal surveys, however.[2]

A second question facing policy makers is whether unwed fathers are potentially dangerous to mothers and children. Clearly, most mothers and children would be more secure economically if nonresident fathers paid more child support. A concern, however, is that forcing fathers to pay child support may lead to unintended negative consequences, which, in some instances, may outweigh the economic benefits. Much of this concern is based on the belief that many nonresident fathers have serious mental health problems, problems with drugs and alcohol abuse, and problems with physical abuse and violence.

The Fragile Families and Child Wellbeing Study is providing the most complete data on unwed fathers to date, and is doing so for a nationally representative sample during a period of unprecedented welfare and child support reform.

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[2]Robertson (1995) estimated that the National Longitudinal Survey of Youth underreports nonresident fathers by only 25-30%.

Research design

The Fragile Families Study has been guided by our desire to obtain better data on unwed parents, especially unwed fathers and their children. This goal has permeated every aspect of our data collection strategy. As discussed previously, most existing data on unwed fathers may be seriously flawed due to: 1) high rates of missing fathers, and 2) little information on whether and how fathers in the sample differ from those who were missed. In contrast, ours is a population-based survey with low rates of missing fathers. In addition, we have information from the mothers on the fathers we have not been able to interview.

During the initial phase of the project (1995-6), we conducted a series of small-scale pilot studies in Detroit, Chicago, Washington DC, and Richmond. These early pretests were conducted by Lauren Rich, Waldo Johnson, Mark Turner, and Melvin Wilson, respectively, who are members of a network of (primarily) minority scholars convened by Garfinkel and McLanahan with funding from the Ford Foundation. These pilots yielded several important findings: namely, that we could gain permission to interview new parents in hospitals, that unwed mothers would provide contact information on fathers, and that many unwed fathers go to the hospital and would agree to be interviewed.

Although our original plan was to have the network scholars collect data in their respective cities, we eventually decided that in order to obtain high quality data that followed standardized procedures across cities, we should employ a professional survey organization. Thus, we contracted with Response Analysis Corporation to conduct a pilot in Philadelphia in the spring of 1997. In the Philadelphia pilot, 21 mothers were approached in prenatal clinics and 21 were approached in hospitals soon after giving birth (all were unwed). Although the response rate was somewhat higher for the mothers in prenatal clinics than that for mothers in the hospital (90% versus 80%), the proportion of mothers who identified the fathers was about the same. The proportion of identified fathers who were located and interviewed was much higher in the hospital sample, however (70% versus 53%). The higher response rate of fathers from the hospitals was due to the fact that most of the fathers visited the mothers in the hospital, and it therefore was relatively easy to locate and interview them there.

We learned several lessons from the Philadelphia pilot. First, we learned that sampling from hospitals is much more efficient and desir-

able than sampling from prenatal clinics. The latter strategy leads to fewer completed father interviews and is less representative of all non-marital births. Second, we confirmed that unwed fathers do indeed go to the hospitals and will agree to be interviewed. Finally, we learned something substantive about the nature of the relationships between unwed mothers and fathers. According to mothers' reports, 54% of couples were still in romantic relationships and 25% had lived together at some point (interestingly, in actual data collection later, these numbers were even higher). Over half of the mothers believed that their chances of marrying the father were 50 percent or greater. Two thirds of fathers provided some type of financial support during the pregnancy. All told, 75% of unwed fathers either had a continuing romantic relationship or they (or their kin) provided support to the mother during pregnancy.

There were two reasons for sampling from hospitals rather than from birth records. First, there was reason to believe that doing so would result in higher response rates. Levine and Bryant (1997) noted that the 1988 National and Maternal Infant Health Survey, which sampled from birth records, was able to locate and complete interviews with only 80% of the mothers. Presumably, the response rate was even lower for unmarried mothers. Our experiences in the pilot studies led us to believe that the spatial clustering of mothers along with intensive interviewer coverage and availability in the hospitals would allow us attain even higher response rates among mothers, and that additionally, we could expect high response rates for fathers because so many of them came to visit the baby at the hospital. Second, the National Opinion Research Center (our survey contractor for the first seven cities of baseline data collection) estimated that interviewing in the hospital could cost one third less than conducting in-home interviews.[3] Normally, because both mothers and fathers were to be interviewed and because there was generally more than one birth per hospital per day, multiple interviews could be conducted during each field worker hospital visit. In-home interviews, on the other hand, require a substantial amount of time for locating, scheduling, and traveling.

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[3] This estimate does not take into consideration the costs of obtaining access to the hospitals, which were substantial and amounted to approximately $300,000 over 2 years, or the costs of satisfying hospital reporting requirements over the course of the study.

Sampling cities

This national study uses a stratified random sample of all US cities with 200,000 or more people.[4] The stratification was not geographic; rather, it was according to policy environments and labor market conditions in the different cities. The sampling occurred in three stages: First we sampled cities; then we sampled hospitals within cities, and finally, we sampled births within hospitals.

All 77 US cities with populations of 200,000 or more were scored on three variables: welfare generosity, the strength of the child support system, and the strength of the local labor market. To measure welfare generosity, we relied on two indicators: (1) the dollar value of the monthly welfare payment for a family of four, and (2) the dollar value of the monthly payment divided by the median monthly rent in the city.[5] For each indicator, cities were sorted into quartiles. Cities in the top quartile were categorized as having high benefits (generous), cities in the bottom quartile were considered to have low benefits, and the other cities were categorized as having moderate benefits. The classification that a city received for welfare generosity was determined as follows: If a city had an "extreme value" for one of the welfare indicators (either top or bottom quartile), but not an offsetting extreme value for the other indicator, that city was characterized as being extreme with regard to welfare generosity (with either high or low benefits). Otherwise, the city was considered to have moderate welfare benefits. In certain cases, however, when a city's ranking on one of the indicators fell very close to a quartile boundary, but far from most other observations in its own quartile, time limits and work requirements were also considered in assigning that city to a category for welfare generosity.[6] For example, if a city just missed being categorized as generous in welfare and it had no work requirement

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[4]Some cities, such as Austin, Indianapolis, and Richmond, include "suburban" areas, while others, such as Philadelphia and Detroit, comprise only the "inner city." In each case, the "vital statistics" definition of the city is what we used.

[5]Data on maximum AFDC benefits for a family of four were obtained from the 1996 Green Book, Section 8, online at
http://frwebgate.access.gpo.gov/cgi-bin/u…wais/data/ways_and_means_committee_prints,
pp. 41-42. Data on rent come from U.S. Bureau of the Census. County and City Data Book, 1994. Washington DC: U.S. Government Printing Office, 1994.

[6]Data on State TANF work requirements and time limits were obtained from National Governors' Association for Best Practices "Summary of Selected Elements of State Plans for Temporary Assistance for Needy Families (TANF) As of June 30, 1997."

or time limit, it was reclassified as being in the generous (lenient) extreme.

To characterize the strength of the child support system in the different cities, we relied primarily on 3 indicators: (1) the paternity establishment rate, (2) the proportion of AFDC cases with a child support award, and (3) the proportion of AFDC cases with a payment.[7] Again, the cities were sorted into quartiles for each indicator. Cities in the top quartile were categorized as having a strong child support system, cities in the bottom quartile were considered to have a weak child support system, and the other cities were categorized as having moderate child support systems. The classification that a city received for child support system strength generally was determined as follows: If a city had "extreme values" in the same direction in 2 of the 3 indicators (either top or bottom quartile), then that city was characterized as being extreme in its child support regime (strict or weak). Otherwise, the city was considered to have a moderate child support system. [8]

To characterize the labor market strength in the different cities, we used unemployment rates, but also considered job growth rates and rates of population growth when unemployment rates did not yield a clear picture (for example, the unemployment rates may have gone from low to high in recent years, or vice versa).[9] Cities were categorized as having strong, weak, or moderate labor markets.

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[7]Paternity establishment rates for 1994 and 1995 were calculated from data in Table 44 in U.S. Department of Health and Human Services, *Child Support Enforcement 20th Annual Report to Congress* and Center for Disease Control, *Monthly Vital Statistics Report* (24 June 1996 and 10 June 1997), Table 16. The percentages of orders established and collections made were calculated for 1995 from data in Tables 32, 33, and 34 in U.S. Department of Health and Human Services, *Child Support Enforcement 20th Annual Report to Congress*.

[8]The basic indicators of child support strength we used to classify cities into cells did not accurately portray the child support regimes in certain states. According to Garfinkel, Miller, McLanahan, and Hanson (1998), states use different denominators when computing the child support indicators that we used initially to stratify cities, yielding misleading rankings in a few cases. Thus, we took additional information into consideration when classifying some states on child support. For example, we categorized Michigan as strict in child support enforcement even though the basic measures did not indicate this classification, since Michigan has a long and established history as a leader in child support enforcement.

[9]Data for population, 1991 unemployment, and 1982-90 population growth come from U.S. Bureau of the Census. County and City Data Book, 1994. Washington DC: U.S. Government Printing Office, 1994. Data on June 1997 unemployment and 1995-1996 job growth were obtained online at the Bureau of Labor Statistics web site, Local Area Unemployment Statistics at: http://stats.bls.gov/news.release/laus.t05.htm and State and Area Current Employment Statistics at http://stats.bls.gov/790issues1.htm, respectively.

We next sorted the cities into two groups: those with only extreme values for all three dimensions (welfare, child support, and labor market) and those with at least one middle value. Cities with extreme values fell into one of eight cells (for example: generous welfare, strict child support, and strong labor market; generous welfare, strict child support, and weak labor market; etc.), representing different combinations of extreme welfare, child support, and labor market regimes. We selected one city from each of the 8 extreme cells and an additional 8 cities from the group of remaining cities. The cities in each of the 9 strata were selected randomly, with the selection probability for each city proportional to its population.[10]

Because welfare benefits and child support policies are set at the state level, these two dimensions are the same for all cities within a given state (except for the measure in which we divided by the median monthly rent in the city). For example, all cities in Texas are in the bottom quartile of the national distribution in both welfare generosity and child support enforcement. Cities in New York are in the top quartile in welfare generosity and in the bottom quartile in child support enforcement. Cities in Indiana and Missouri show the opposite pattern from those in New York, with low welfare benefits and tough child support enforcement. Finally, cities in Michigan and Wisconsin have generous welfare policies and tough child support enforcement.

As mentioned earlier, one city was selected randomly from each of the eight "extreme policy regime" categories. In each of these cities, the plan was to collect data for a total of 325 births (250 non-marital, 75 marital). The other 8 cities in the national sample were chosen randomly from the group of US cities with 200,000 or more people that had "non-extreme" overall policy regimes. In this second group of cities, the plan was to sample a total of 100 births in each city (75 non-marital, 25 marital). We call the cities in which we sampled a total of 325 births "large sample cities," and those in which we sampled only 100 births "small sample cities." For the purposes of the national sample, it was necessary to sample only 100 births in each of the 16 cities. However, to maximize variation in policy/labor market regimes, we chose to increase the sam-

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[10]Larger cities had a higher probability of selection for the sample than smaller cities. Selection with probabilities proportional to size helped assure the representativeness of the sample. In a few instances, there were no cities in a given extreme cell, or only one. Since it was necessary to sample within strata to be nationally representative, we shifted a few cities into extreme cells even though they had one middle value instead of three extreme values (for welfare, child support, and employment).

ple size in the 8 cities with all extreme values. Hence, the inclusion of "large sample" and "small sample" cities.

There were three reasons for concentrating observations in cities. First, city environments vary dramatically in a number of ways that are likely to affect individual behavior and family relationships. The effects of environmental influences such as labor markets, child support and welfare policies, sex-ratios, and race/ethnic composition are not well understood and could easily interact with one another and with individual level variables in our models (Neal 2000). The generosity of welfare, for example, might have a weak effect on marriage in the context of a strong labor market and strong child support enforcement, but a strong effect in the face of a weak labor market and lax child support enforcement. Similarly, in cities with low welfare benefits and low unemployment, individual values with regard to marriage and cohabitation may be very important determinants of cohabitation, whereas in cities with high benefits and high unemployment, such values may play little or no role. Having a large sample in eight cities allows us to study the processes that determine adult relationships and the effects of these relationships on well-being in each city. In effect, we have 8 "large sample" case studies within the national sample. Oversampling in eight cities also allows us to test for whether there are differences across cities in the mean values and effects of different variables.

Second, concentrating observations allows us to more accurately describe the environment in each city. This is especially important for measuring welfare and child support regimes. Administrative record data do not provide population-based information, and they are likely to provide inconsistent information on some variables, such as sanction rates. They also provide no information on still other variables, such as knowledge. Large national data sets like the Current Population Survey (CPS) provide large enough samples in some states to aggregate to the state level. However, our experience with the Child Support Supplement to the CPS (which has 4000 observations per year) indicates that even after pooling 3 years of data, we have very large standard errors in most states. Moreover, although welfare and child support policies are made at the state level, these policies are implemented at the local level. Thus, getting an accurate description of the welfare and child support regimes at the city level is important and requires a large city sample. Finally, the most efficient design for detecting the effects of differences in child support, welfare, and labor market regimes is to concentrate observa-

tions in cities with extreme values (i.e., those with the highest and lowest welfare benefit levels and the strongest and weakest child support and labor market regimes).[11] By maximizing the variance in these explanatory variables, we minimize the variance of their estimated coefficients.[12]

If we were to sample only from the eight cities that maximize regime variation, however, it would be more difficult to detect non-linearities in the effects of welfare, child support, and labor markets. It also would be harder to detect the effects of other city-level variables and we would not be representative of a national population. We resolved this tradeoff by drawing a nationally representative sample of non-marital births in cities with populations over 200,000 (the 16 cities) *and* by over-sampling in 8 cities that maximize welfare, child support, and labor market regime variation. Adding the additional 8 cities with smaller samples to the eight cities with large samples allows us to detect the effects of other city level variables and non-linearities *and* to be nationally representative of unwed births in large cities while increasing the data collection budget by only about 25%.

The 16 cities that turned up in our national sample were: Indianapolis, IN; Austin, TX; Boston, MA; Santa Ana, CA; Richmond, VA; Corpus Christi, TX; Toledo, OH; New York, NY; Birmingham, AL; Pittsburgh, PA; Nashville, TN; Norfolk, VA; Jacksonville, FL; San Antonio, TX; Philadelphia, PA; and Chicago, IL. The first 8 were "extreme" cities and earmarked to be "large sample cities," and the others were "non-extreme" and earmarked to be "small sample cities." However, certain substitutions were made; these are discussed below.

In addition to the cities in the national sample, we also are conducting the study in 4 other cities that are of special interest to specific foundations: Newark, NJ; Oakland, CA; Detroit, MI; and San Jose, CA. We are collecting data on 325 births in each of these additional cities. Addi-

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[11]See Conlisk and Watts (1969) for a similar approach and Morris, Newhouse, and Archibald (1980) for a more skeptical view. Duncan and Raudenbush (1997) present a similar justification (maximizing variance) for the utility of cross-national studies. For a textbook discussion, see Groves (1989).

[12]For estimating the effect of welfare, placing all of the observations in 8 cities rather than distributing them equally across 16 cities would have increased efficiency by approximately 34%. The gain in efficiency from concentrating observations in 8 cities versus using a nationally representative sample not stratified into cities would of course have been even larger. The gain in efficiency from our actual allocation of 325 observations in 8 large cities and 100 in 8 small ones versus an equal distribution across all 16 cities was approximately 12%.

tionally, we added Milwaukee to the sample of cities because it represents a unique and interesting case study. Wisconsin traditionally has been a leader in social welfare reform and has done more than any other state in the county to reduce welfare caseloads. Although Wisconsin is in the top quartile in welfare generosity, it has gone further than any other state to encourage work and also has the strongest child support system in the county. Data are being collected for 325 births in Milwaukee.

To implement our plan once the cities were selected, we needed to obtain access to hospitals giving us representative samples of non-marital births in the national sample, as well as in each individual city (see following section for more detail). We were successful in doing so in all cities (in the national sample as a whole, in the national sample cities, and in the additional cities) except for Birmingham and Santa Ana.[13] Per our sampling protocol, we selected 2 replacement cities from the relevant "cells." One was Baltimore, which like Birmingham, fell into the non-extreme regime category. The other was San Jose, which fell into the same extreme cell as Santa Ana. In addition, Baltimore and San Jose also were of particular interest to members of our funding consortium.

We also adjusted the sample sizes of some of the cities in the national sample. Since Milwaukee was added as an additional "large sample" city, and since it fell in the same cell as Boston, the sample in Boston was reduced to 100 births. The sample in Toledo also was reduced from 325 to 100, since 325 cases were to be sampled in Detroit, which is similar to Toledo in terms of policy regimes and labor markets.[14] Finally, although Philadelphia turned up as a "small sample city," we sampled 325 rather than 100 births there, since this was one of the cities of special interest to one of our funders.

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[13]In addition, a special situation arose in Boston very late in the process, just as we were about to commence data collection in that city. We had obtained institutional approval to conduct the study at Brigham and Women's Hospital, Beth Israel Deaconess Medical Center, and Boston Medical Center, allowing us to cover the hospitals in which over 80% of non-marital births in that city took place. As we were about to start interviewing at Brigham and Women's Hospital, administration there barred us from conducting the study despite the fact that we had a physician sponsor and Institutional Review Board (IRB) approval there (the process of finding a physician sponsor and obtaining IRB approval is discussed later in this paper). Approximately two thirds of the non-marital births in Boston take place at Brigham and Women's. Rather than pulling out of the city at the last minute, however, we drew extra sample from Boston Medical Center, which appears to have very similar clientele to Brigham and Women's. Thus, Boston is the one city in which we may not be truly representative of non-marital births.
[14]Detroit is even more generous in terms of welfare than Toledo.

Table 1
Fragile Families, by Policy and Labor Market Regime

	Child Support Enforcement								
	Strict			Moderate			Lenient		
Labor Market:	**Strong**	**Average**	**Weak**	**Strong**	**Average**	**Weak**	**Strong**	**Average**	**Weak**
High Benefits	Boston* **MILWAUKEE**	Pittsburgh*	Toledo* **DETROIT**				**SAN JOSE***	**OAKLAND**	**NEW YORK***
Moderate Benefits	Norfolk*	**PHILADELPHIA***	**NEWARK**	Jacksonville*	**BALTIMORE***			Chicago*	
Low Benefits	INDIANAPOLIS*		**RICHMOND***		Nashville*		**AUSTIN***	San Antonio*	CORPUS CHRISTI*

UPPER BOLD = LARGE SAMPLE CITIES (325 births)
Lower case = small sample cities (100 births)
*City is in national sample

Table 1 lists the cities in the final sample and categorizes them by policy regime "cell," whether or not they are in the national sample, and whether they ended up being large (325 births) or small (100 births) sample cities.

Sampling Hospitals Within Cities

Embedded within the nationally representative study are case studies of the individual cities. Thus, it was necessary to sample hospitals within each city so as to be representative of non-marital births in that city. The sample cities and hospitals are listed in Table 2. In the following cities, we were able to interview new parents in all of the birthing hospitals located within the city boundaries: Oakland, Austin, Newark, Richmond, and Corpus Christi. All of these cities had 5 or less birthing hospitals within the city limits, and it was possible to conduct interviews in all of them.[15] Most of the remaining cities had one or more small hospitals with very few births, and an exclusion criterion was implemented for cost/efficiency reasons.[16] Hospitals in Philadelphia were chosen according to a similar criterion.[17]

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[15]For all of the cities, the expected birth flows for the different hospitals (and for each city as a whole) by marital status were based on custom-ordered vital statistics data on the annual flows for the most recent year that was available (usually 1996 or 1997). These statistics were ordered from the appropriate states as soon as the cities were chosen. Since at the time these statistics were ordered we intended to exclude all mothers who were not residents of the city, the hospitals selections were based on statistics for city resident mothers only. We later decided not to screen for city residence.

[16]For each of the remaining cities, with the exception of Philadelphia, New York, and Chicago, we rank-ordered the birthing hospitals from those that had the most non-marital births to those that had the least. In a given city, we sampled hospitals in order starting with the largest hospital in terms of the number of non-marital births, until 75% of the non-marital births in the city were covered. The only exceptions to this rule were in Pittsburgh, San Jose, and Boston. In Pittsburgh, Western Pennsylvania Medical Center ideally would have been included in our sample. However, this hospital was not interested in participating in the study. The coverage of non-marital births in Pittsburgh, therefore, is only 72%. In San Jose, O'Connor Hospital ideally would have been included, but this hospital also was not interested in participating. We added the next two hospitals on the San Jose list, which were Santa Teresa Community Hospital and Kaiser Permanente Santa Clara, allowing us to cover 76% of the non-marital births in San Jose. We were successful in obtaining access to all of the other 48 hospitals needed to meet the inclusion criterion for this group of cities. See footnote 13 regarding Boston.

[17]Hospitals in Philadelphia were chosen using the rule described above, but since there were 18 birthing hospitals in Philadelphia and the births were very spread out across hospitals, we covered only 63 percent of the non-marital births to city residents with the six hospitals in our sample. We chose not to add more hospitals for budgetary and logistical reasons. One hospital that ideally should have been in the sample, Allegheny-Hahnemann, had

The remaining two cities, New York and Chicago, each had dozens of hospitals and it was thus necessary to sample randomly from among them. Included in the pool from which hospitals were chosen randomly for each city were hospitals with over 1000 non-marital births per year. We eliminated smaller hospitals in an attempt to cover a reasonable proportion of non-marital births in these cities. Our sample covers 22% and 39% of non-marital births in New York and Chicago, respectively. In each of these cities, we sampled a few more hospitals than we needed, in case one or more hospitals did not want to participate. In these large cities with numerous hospitals, it was much less important than in the smaller cities to get into any one hospital. Thus, we did not think it prudent to spend an enormous amount of time and effort on gaining access to hospitals in these cities that were reluctant to participate.

We approached 10 randomly selected hospitals in New York City and worked on gaining access to all ten until we secured the participation of 6.[18] The list of randomly selected hospitals consisted of (in this order): Metropolitan Hospital, Mount Sinai Medical Center, Harlem Hospital Center, New York Presbyterian Medical Center, North Central Bronx Hospital, New York Hospital/Cornell Medical Center, Queens Center Hospital, St. John's Queens, Woodhull Hospital, and Elmhurst Hospital Center. Metropolitan Hospital was not interested in participating, and we obtained access to Elmhurst Hospital Center before connecting with Queens Hospital Center, St. John's Queens Hospital, or Woodhull Hospital. Thus, our New York City sample includes Mt. Sinai, Harlem, New York Presbyterian, North Central Bronx, Cornell, and Elmhurst.

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major financial problems and was conducting no deliveries when baseline data were collected in Philadelphia.

[18]For cost/efficiency reasons, we set a limit of 6 hospitals in any large sample city.

Table 2
Hospitals In Sample

Large Sample Cities (7 cities)

Austin	Brackenridge Hospital, Columbia St. David's Medical Center, Seton Medical Center
Oakland	Alameda Co. Medical Center, Summit Medical Center
Baltimore	Johns Hopkins Hospital, Mercy Medical Center, Sinai Hospital of Baltimore, Union Memorial Hospital, University of Maryland Medical System
Detroit	Henry Ford Hospital, St. John's Detroit Riverview Hospital, Wayne State: Hutzel, Wayne State: Sinai/Grace
Newark	Newark Beth Israel Medical Center, Columbus Hospital, St. James Hospital, St. Michael's Medical Center, Univ. of Medicine and Dentistry of NJ (UMDNJ)
Philadelphia	Albert Einstein Medical Center, Episcopal Hospital, Hospital of University of Pennsylvania (HUP), Pennsylvania Hospital, Temple University Health Services Center, Thomas Jefferson University Hospital
Richmond	Chippenham Medical Center, Medical College of Virginia

Other Large Sample Cities

Corpus Christi	Columbia Doctor's Regional Hospital, Christus Spohn Hospital South, Christus Spohn Memorial Hospital, Columbia Bay Area Medical Center
Indianapolis	Methodist Hospital of Indiana, Wishard Health Services, St.Vincent Hospitals and Health Services
Milwaukee	Sinai-Samaritan Medical Center, St. Joseph's Hospital, St. Mary's Hospital
New York City	Elmhurst Hospital Center, Mt. Sinai Medical Center, Long Island College Hospital, New York Presbyterian Medical Center, North Central Bronx Hospital, NY Hospital - Cornell Medical Center, Harlem Hospital Center, Lutheran Medical Center
San Jose	Santa Clara Valley Medical Center, Regional Med. Ctr. of San Jose, Santa Teresa Community Hospital, Kaiser Permanente Santa Clara

Small Sample Cities

Nashville	Baptist Hospital, Centennial Medical Center, Vanderbilt Univ. Medical Center
Boston	Brigham and Women's Hospital*, Beth Israel Deaconess Medical Center, Boston Medical Center
Chicago	University of Chicago Hospital, Michael Reese Hospital and Medical Center, Cook County Hospital, Mt. Sinai Hospital, Mercy Hospital and Medical Center, Northwestern Memorial Hospital
Jacksonville	University Medical Center, St. Vincent's Medical Center, Baptist Medical Center
Norfolk	Sentara Norfolk General Hospital, Sentara Leigh Hospital
Toledo	Toledo Hospital, St. Vincent Mercy Medical Center
San Antonio	Southwest Methodist Hospital, Christus Santa Rosa Hospital, Metropolitan Methodist Hospital, Baptist Medical Center, University of Texas Health Science Center
Pittsburgh	Magee-Women's Hospital, Allegheny General Hospital, Mercy Hospital of Pittsburgh

*Prohibited us from conducting the study just as we were about to commence data collection there (See Footnote 13).

The 325 births in New York City were sampled from these six hospitals. In addition, we have included an additional New York City hospital, Long Island College Hospital (LICH), where we collected data on an extra 36 non-marital and 10 marital births, because: 1) we thought there was a good chance that we would obtain funding to increase the New York City sample and that this funding might be tied to a study of child abuse and neglect (LICH is located in an area of the city that has high rates of reported child abuse and neglect), and 2) our city-wide random sample included no hospitals in the borough of Brooklyn, where LICH is located (as is Woodhull). Finally, a small number of extra baseline interviews were conducted at Lutheran Medical Center in conjunction with a special qualitative study of a small number of families.

We took a random sample of 6 hospitals in Chicago: Cook County Hospital, Michael Reese Hospital and Medical Center, Mount Sinai Hospital, Northwestern Memorial Hospital, Norwegian-American Hospital, and St. Bernard's Hospital.[19] We were not able to gain access to conduct the study at the last two hospitals, so we randomly selected two additional hospitals. These were University of Chicago Hospital and Mercy Hospital and Medical Center, which are now included in our sample.

Once the list of hospitals was compiled, the process of gaining access to the conduct the study in the 75 hospital sites in 20 different cities was begun. It was a monumental task requiring a staff of three full-time and several part-time employees over 2 years, as well as the development of an elaborate information management system. Although the process was unique in each and every hospital, it generally worked as follows: In each hospital, we had to recruit a "sponsor" (generally a physician) who agreed to serve as the local Principal Investigator at that particular site. The local Principal Investigator then connected us with the appropriate parties through which to get Departmental (generally OB/GYN and sometimes also Pediatrics) and institutional approval to conduct the study at that hospital. The hospitals generally have Institutional Review Boards (IRBs) or Human Subjects Committees, which have unique proposal guidelines and subject each proposal to a stringent (and lengthy) review process. Most hospitals had specified formats and language to include in the consent forms, resulting in multiple versions of consent forms across hospitals.

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[19]We originally planned on conducting the study at fewer than 6 hospitals in Chicago, since Chicago is a "small sample" city. However, we later reconsidered this decision in order to cover as high a percentage of non-marital births in Chicago as possible.

Often, it was necessary for someone from Princeton to attend an IRB meeting to present the study. Most IRBs then sent us a list of needed revisions to be made to both the research protocol and consent forms before the study could be approved. We generally responded to such requests in writing, going through each of the hospitals' concerns point by point. In such responses, it was important both to be responsive to the hospital's concerns and to maintain consistency of our protocol across sites. We were not turned down by any hospital IRB.

Sampling Births Within Hospitals

Within each of the hospitals, we took random samples of both married and unmarried births until we reached preset quotas that were based on the percentage of non-marital births in the city that occurred at that hospital in 1996 or 1997 (see footnote 15), in conjunction with more recent "ballpark" figures provided by the individual hospitals (which generally do not record information on marital status). In some cases, we found that the distribution of non-marital births across hospitals within cities was different than the figures upon which our quotas were based; in these cases, we determined the actual distributions from our early data collection in those cities and adjusted the quotas accordingly. We again will determine the actual distributions when vital statistics data become available for the time period the data were collected, and re-weight our descriptive statistics as necessary.

With the possible exception of Boston (see footnote 13), our sample is representative of the non-marital births taking place in each of the 20 cities—not just to residents of that city.[20] Our marital sample is not necessarily representative of marital births in each city, however, since in most cities we did not sample births from all hospitals, but instead sampled births in hospitals that had the most non-marital births.

The following parents were excluded from the study: those who planned to place the child for adoption, those for whom the father of the baby was not living at the time of the birth, those who did not speak English or Spanish well enough to complete the interview, mothers who were too ill to complete the interview (or their babies were too ill for the

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[20]In the first two sites, we initially collected data on city residents only. After quickly realizing that we were missing a good portion of births in these cities, we stopped screening for residency midstream in these two sites and did not screen for city residence in any of the remaining cities.

mother to complete the interview), and those whose baby died before the interview could take place.[21] In addition, many hospitals prohibited us from interviewing parents less than 18 years old. In these hospitals, a given mother was not interviewed if either she or the baby's father was under 18.[22]

The baseline field period in the first two cities, was approximately 10 weeks long in the hospitals and then the out-of-hospital father interviews continued at a slow pace for another 3 months. The field period was then revised downward in an attempt to reduce costs for the next 5 cities to 7 weeks in the hospital plus an extra 3 weeks in the field. In both groups of cities, particularly the second group which had a very short field period, we found that the interviewers had trouble implementing a pre-determined sampling plan designed to be used when the birth flows were too high for the available staff to handle. One result of trying unsuccessfully to handle large flows was that we missed opportunities to interview many of the unwed fathers in the hospital, where data collection is much more efficient and less costly than in the field. Thus, for the remaining 13 cities we extended the field period (to 16 weeks in the hospital and 4 weeks in the field in the large sample cities, and to 6 weeks in the hospital and 3 weeks in the field in the small sample cities) and implemented a sampling system that did not depend on the birth flows.[23]

Discussion

This study is a dynamic work in progress that would not be possible without our unique collaboration of researchers, hospitals, funders, and practitioners. There will doubtless be many twists, turns, and issues over

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[21]Less than 5% of births were ineligible for one or more of the following reasons: adoption, father not living, language, baby died, and/or mother or baby too ill.

[22]The age of respondents was restricted in approximately 2/3 of the hospitals. Whether or not parents under age 18 were interviewed varies by hospital, depending on both state laws and hospital regulations. We interviewed parents under 18 in hospitals that did not require us to obtain parental consent to do so. We were concerned that obtaining parental consent would have been costly and would have skewed the sample of minors in the favor of those whose own parents visited them in the hospital.

[23]Interviewers were limited in the number of mothers that they could approach on each given day. A roster of all birthing beds was obtained for each hospital and beds were sampled by going down the list and then cycling back through the list, as necessary.

the coming years, as well as a flow of emerging findings to disseminate to the academic and policy communities. The dissemination of results will take place through "city reports," research briefs on our website, scholarly research articles and professional talks, and lectures to community groups and funding agencies.

The National Opinion Research Center (NORC) at the University of Chicago conducted baseline interviews for the first seven cities. Mathematica Policy Research, Inc. (MPR) in Princeton, New Jersey conducted the baseline interviews for the other 13 cities. The 1-year follow-up interviews are being conducted by MPR.[24]

This special issue contains data analyses using the first 7 cities of baseline data —from Oakland, Austin, Baltimore, Detroit, Newark, Philadelphia, and Richmond. The exact interview completion rate for mothers in the 7 cities is unknown because complete information on eligibility was not obtained in the first two cities. However, we have no reason to think that the response rates in those 2 cities differed from those of the other five cities. In the 5 cities, 85% of eligible mothers were interviewed (89% of unmarried and 83% of married mothers).

Of the mothers who completed interviews in the 7 cities, 76% of the fathers also completed interviews. As expected, the completion rate was higher among married fathers (87% of completed married mother interviews) than among unmarried fathers (72% of completed unmarried mother interviews). However, the completion rate for unmarried fathers who were living with the mother was identical to that of married fathers (87%). Unmarried fathers who did not live with the mother were the least likely to complete interviews (60% of completed non-cohabiting unmarried mother interviews), especially if they had not visited the hospital by the time the mother was interviewed (35%). Non-response among the latter group was sometimes due to mothers choosing not to provide the father's name.

As a broad introduction to the set of analyses contained in this special issue, a few basic demographic characteristics of the non-marital sample from the first seven cities are presented here, along with comparison figures for non-marital births in the US as a whole. As can be seen in Table 3, the 7-cities non-marital sample has more than twice the percentage of non-Hispanic blacks and a much smaller percentage of non-Hispanic whites than the sample of non-marital births in the US as a whole in 1998. This is

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[24]A time-line of the data collection activities for the project as a whole is available from the authors.

not surprising since these 7 cities have very high percentages of black residents. The percentages of Hispanics and women of other races, however, are similar in the two samples.

Table 3
Characteristics of Sample Population

	Fragile Families	United States
Race:		
White non-Hispanic	8%	40%
Black non-Hispanic	69%	32%
Hispanic	19%	24%
Other	4%	4%
Age:		
<18	5%	12%
18-19	19%	18%
20-24	38%	35%
25-29	22%	19%
30-34	10%	10%
35-39	4%	5%
40+	2%	1%
Other Characteristics:		
US – Born	87%	83%
First Born	36%	48%
At Least HS Grad	59%	56%

[a]Figures for race, age, and nativity for unmarried mothers in the United States are for 1998 and come from US Department of Health and Human Services, National Vital Statistics Report, Vol. 48, No. 3, March 28, 2000.
Figures for first births and education for unmarried mothers in the United States are from US Department of Health and Human Services, Vital Statistics of the United States, 1993, Vol. 1 - Natality.

The age distribution of the non-marital births in the Fragile Families sample mirrors closely the distribution in the US as a whole, especially considering that many hospitals did not allow us to interview parents under the age of 18 and therefore that the age distribution in the Fragile Families sample is somewhat skewed. The percentage US-born in the Fragile Families sample is very similar to that in the US. The percentage of first births

in the Fragile Families sample is somewhat lower than that in the US (35% vs. 48%), possibly reflecting the restrictions imposed by many of the hospitals on interviewing parents who were minors. Finally, the percentage of women with at least 12 years of education is very similar in the Fragile Families and national samples. It will be interesting to see how the full Fragile Families sample compares to both this 7-city sample and to non-marital births in the US as a whole, the latter of which represents rural areas, suburban areas, and small cities in addition to large cities.

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