

Utilization of Pay-in Antenatal Leave Among Working Women in Southern California

Sylvia Guendelman, PhD,^{1,4} Michelle Pearl, PhD,² Steve Graham, MPH,²
Veronica Angulo, MPH,¹ and Martin Kharrazi, PhD³

Published online: 23 February 2006

Objectives: Examine antenatal leave arrangements among pregnant workers in California, and the occupational, demographic and well-being characteristics associated with leave taking. Unlike most states, California provides paid pregnancy leave up to 4 weeks antenatally and 6–8 weeks postnatally. **Methods:** Weighted data from postpartum telephone interviews conducted between July 2002 and November 2003 were analyzed for 1214 women participating in a case-control study of birth outcomes in Southern California. Eligible women worked at least 20 h/week during the first two trimesters of pregnancy or through the date of prenatal screening. The overall response rate was 73%. **Results:** Fifty-two percent of women took no leave, 32% took antenatal leave expecting to return to their job or employer sometime after giving birth, and 9% quit their jobs during pregnancy. For leave-takers with paid leave (69%), the state was the main source of pay (74%). Medical problems (52%) rather than maternity leave benefits (25%) were the most common stated reasons for taking leave. The strongest predictors of leave taking versus working through pregnancy were feeling stressed and tired (adjusted OR = 4.3, 95% CI [2.2–8.2]) and having young children (adjusted OR = 2.1, 95% CI [1.2–3.7]), followed by occupational factors (night shift, unfulfilling and inflexible work, short work tenure). Lack of employer-offered maternity leave benefits was associated with increased quitting relative to both leave taking and working through pregnancy. **Conclusions:** Maternity benefits influence quitting, but alone do not determine antenatal leave taking. Working pregnant women in California utilize leave cautiously and predominantly to cope with health problems, work dissatisfaction and fatigue.

KEY WORDS: maternity leave; working women; stress; utilization of pay-in antenatal leave; pregnancy.

INTRODUCTION

Women's participation in the American labor force has steadily increased from 38% in 1960 to 60%

in 2002 (1). Women of childbearing age have the highest rate of labor force participation of all women and no longer leave the workforce when pregnant (2). Among employed pregnant women, nearly 80% work during the third trimester of pregnancy and the majority hold full-time jobs (2).

Economic necessity, increased education, changing expectations, and a strong work commitment account for much of this shift (3). Women are contributing to the family's economic well-being by working in less traditional jobs, many of which require excessive time demands and physical endurance (4). Managing work and family often requires exceptional motivation and stamina. Yet,

¹Maternal and Child Health Program, School of Public Health, University of California, Berkeley, California.

²Sequoia Foundation, California Department of Health Services, Sacramento, California.

³Genetic Disease Branch, California Department of Health Services, Sacramento, California.

⁴Correspondence should be addressed to Sylvia Guendelman, PhD, Professor Maternal and Child Health Program, 404 Warren Hall #7360, University of California, Berkeley, California 94720-7360; e-mail: sylvia@berkeley.edu.

while the gender composition of the workforce has diversified, employer policies and federal employment laws often fail to recognize the shared financial responsibilities or reproductive realities of women, still reflecting the concept of a full-time, male workforce (3, 4).

Making it easier for women to combine work and parenting roles enables families to function more effectively while also helping businesses attract and retain the best workers (5). Delaying childbearing due to career concerns often means decreased fertility as couples age (6). Facilitating women's multiple roles requires family-friendly policies (3). The Family and Medical Leave Act (FMLA), enacted by Congress in 1993, allows parents to take up to 12 weeks of *unpaid* job protected leave around the birth of a child or to provide family care (7). The law applies to full-time employees working for at least 1 year in companies with 50 or more employees. FMLA covers less than half of the workers in the private sector; part-time employees and those working in informal labor markets do not benefit. Studies show increases in family leave up-take beginning in 1993, particularly for full-time employees in medium- and large-sized establishments and in the public sector. Yet because leave is unpaid, many FMLA-eligible employees cannot afford to take leave (8).

California is one of five states providing paid pregnancy leave, generally for up to 4 weeks before birth, and up to 6 weeks after a vaginal delivery or 8 weeks after a caesarean section. Cash benefits, averaging \$293/week in 2003, derive from temporary state-sponsored non-occupational disability insurance funded through employee payroll deductions (9). Women working for public or private employers with five or more employees are covered. Although employers vary widely in the maternity benefits that they offer, women are legally allowed to work as long as they desire and they are generally encouraged to plan ahead for maternity leave and communicate their intentions to their employers. While a few studies have tracked maternity leave coverage, little is known about the actual patterns of antenatal leave taking and the occupational, demographic and health characteristics associated with leave (2, 3). Women may take leave if they are stressed and fatigued during pregnancy or may avoid taking leave if they must forgo promotion and income. Information about antenatal leave utilization patterns and correlates is needed to shape evidence-based health care guidelines and inform health policy and legis-

lation. Antenatal leave utilization patterns can also address labor concerns about worker retention associated with pregnancy.

In this article, we examine the maternity leave arrangements that women use prior to delivery and focus specifically on antenatal leave, i.e. the extent to which women go on maternity leave while they are pregnant with the expectation of returning to their job sometime after delivery. We address the following questions: To what extent do women take antenatal leave, quit work or not take any leave during pregnancy? What occupational, demographic, and well-being factors influence these decisions? Among leave takers, what is the duration, source of compensation and main reason for leave? We discuss the implications of our findings for evaluating maternity leave policies in California and other states. In subsequent papers, we will examine the impact of antenatal leave on pregnancy outcomes. Although this relationship has not been explored in US women, studies conducted abroad show a protective effect of antenatal leave on low birthweight (LBW) (10), small for gestational age (11), and mean birthweight (12).

METHODS

Subjects derive from a case-control study, *Juggling Work and Life During Pregnancy*, designed to examine the relationship between stress and pregnancy outcomes. All women participated in the California Department of Health Services Prenatal Screening Program (XAFP) in three Southern California counties (Orange, Imperial, and San Diego). Women delivering live births between July 2002 and November 2003 were eligible for contact if they were at least 18 years old, delivered within 6.5 months of the interview date, had a singleton birth without congenital anomalies, and had a US mailing address. Live birth records were matched against XAFP records corresponding to the regional laboratory serving these three counties, yielding 38,383 women with linked data in our sampling frame.

All women delivering preterm (PTD) or LBW infants ($n = 3865$) and a random sample of controls ($n = 3367$) frequency matched on race and month-of-birth were mailed an introductory letter 1-6 months after delivery using the mailing address recorded in birth records as well as menstrual period and birthweight. Potential participants were subsequently contacted by telephone. At least 15 attempts were made to contact each subject. Contacted

women were prescreened to ascertain their employment history during pregnancy. Women who had worked 20 h or more per week during the first two trimesters of pregnancy or through the date of XAFP testing were considered eligible for study and invited to participate in a 45 min telephone interview.

Out of 3655 successful contacts, 740 women (20%) refused participation and 1591 (44%) were not eligible because they were not working at least 20 h/week during the designated period. Women who were contacted (on average 20 weeks post delivery) were more likely than those not contacted to be age 30 or older (51% vs. 40%), White (33% vs. 24%), have post-high school education (53% vs. 42%), and have a term infant (61% vs. 54%), but were as likely to have delivered a LBW infant (26% for both groups). Refusers were more likely than study participants to be Asian, primiparous and college educated. They did not differ with respect to age or birth outcome. Eligibility and refusal rates were identical among women delivering preterm or LBW infants and women delivering term/normal weight infants. Of the remaining 1323 eligible women, 109 were unable to complete the interview, yielding 1214 completed interviews. There were 592 cases (21% LBW, 47% PTD, and 21% both PTD and LBW). Participants were queried about their maternity leave arrangements, work environment, occupational and reproductive characteristics, and demographic background. The overall imputed response rate among eligible women was 73%.

Measures and Data Collection Instruments

Women were categorized into one of five outcome groups: those who (i) used antenatal leave with the expectation of returning to their job or employer sometime after giving birth; (ii) quit their jobs; (iii) took no leave prior to giving birth; (iv) cut back on their work hours; or (v) were fired. Among women who took antenatal leave or quit work (the two main time-off arrangements) we examined additional features: whether the time off was paid and by whom (state disability insurance, the employer or a private insurance carrier), gestational age at which time off was taken, the length of time taken prior to delivery, and the reason for taking leave or quitting.

Among independent variables, *occupational* variables included type of occupation, work shift, years employed, company size, flexibility in setting one's own work schedule, job fulfillment, whether

the employer offered maternity leave benefits and health insurance coverage, and job strain (13). Job strain was categorized as low strain (low demands and high control over demands); passive (low demands and low control); active (high demands and high control), and high strain (high demands and low control). *Demographic* variables included annual household income, highest educational attainment at the time of delivery, maternal age, marital status, race/ethnicity, and the number of children under age 5. We measured *well-being* through a combination of reported stress or tiredness during the second trimester of pregnancy, as follows: low (neither stressed nor tired), medium (either stressed or tired), and high (both stressed and tired). This measure correlated strongly with health problems during pregnancy, a field we were unable to use because we could not establish the temporality of events.

Bilingual Spanish-English interviewers were trained by the study investigators and supervised by Survey Research Group (Sacramento, California). Interviewers used Computer Assisted Telephone Interviewing (CATI) software to enter the responses into a database and verified 5% of the interviews through repeat calls. A \$10 gift card was offered to participants in return for a completed interview. The study protocol was approved by the Committees for the Protection of Human Subjects at the University of California, Berkeley (No. 2003-5-115) and by the California Health and Human Services Agency (No. 02-10-18).

Data Analysis

We estimated the take-up rates (%) of antenatal leave, quitting, no leave, and other time off. Chi-square tests were used to compare occupational, demographic and well-being characteristics among the main study groups: leave takers, quitters, and no leave takers. We used logistic regression to estimate adjusted odds ratios and their 95% confidence intervals of (a) taking antenatal leave versus no leave, (b) antenatal leave versus quitting, and (c) quitting versus no leave, controlling for occupational, demographic characteristics, and well-being.

Because cases and controls were sampled from the universe of live births, the sampling probability for each individual is known. Analytic weights constructed from the inverse of the known sampling probabilities were used to adjust the sample back to the birth population by accounting for the over

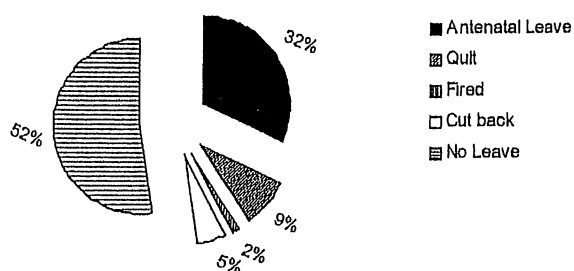


Fig. 1. Antenatal leave arrangements among working women in three southern California counties, 2002-2003.

sampling of PTD and/or LBW infants and frequency matching of controls to cases. All weighted analyses were conducted using survey procedures in SAS version 9.1.2 (14) to calculate appropriate standard errors.

RESULTS

Maternity Leave Arrangements

As shown in Fig. 1, the majority of working women (52%) worked up to the time of delivery, while 32% took antenatal leave, 9% quit their jobs, 5% cut back on their hours, and 2% were fired during pregnancy. Only 1% of non-leave takers worked from home.

Overall, 63% of women and 69% of antenatal leave takers were offered leave by their employer. Quitters were less likely than antenatal leave takers to have paid maternity leave (39% vs. 75%) (Fig. 2). The sources of pay for women with paid leave were similar for leave takers and quitters, with the state covering 74 and 78%, and employers covering 21 and 23%, respectively. On average, antenatal leave takers stopped work 1 month later in pregnancy than quitters (33 weeks [95% CI = 32.6-34.2] vs. 29 weeks gestation [95% CI = 27.1-31.3]); 55% of leave takers exceeded the 4 weeks of antenatal leave allowed by the state (Fig. 3). Medical problems (52%) rather than access to maternity benefits (25%) were the most commonly stated reasons for stopping work and taking antenatal leave at that time (Fig. 4). Similarly, 48% of quitters reported that they stopped work due to medical problems. Lifetable analysis reveals that 50% of leave takers, 51% of non-leave takers, and 15% of quitters returned to work by 3 months postpartum.

Determinants of Antenatal Leave Takers Versus Non-Leave Takers

Several occupational factors are shown to contribute to antenatal leave taking compared to non-leave taking (Table I). After controlling for the covariates listed in the table, working the night shift was associated with an almost threefold-increased odds of taking antenatal leave and lack of fulfillment in the job with nearly a twofold increase, while lack of work flexibility and work tenure of less than 1 year were associated with lower odds of leave taking. Job strain was not a significant predictor of leave. As for demographic and well-being characteristics, women completing high school were more likely to take leave, and having more than one child under the age of 5 doubled the odds of leave. Furthermore, being either stressed or tired doubled the odds of leave taking, and being both stressed and tired quadrupled the odds.

Antenatal Leave Takers Versus Quitters

Adjusting for covariates, being stressed or tired, and having a high strain job were related to higher odds of leave taking relative to quitting (Table II). Women were more likely to quit than take leave if they were not offered maternity leave benefits by their employer or had less than a full high school education.

Quitters Versus Non-Leave Takers

After controlling for covariates, not having maternity leave benefits offered by the employer was associated with a threefold-increased odds of quitting compared to no leave taking (Table III). Additionally, women whose employer did not offer health insurance, and those with a high stress/tired index had elevated odds of quitting. The odds of quitting decreased as maternal age increased.

DISCUSSION

As our findings show, the majority of women (52%) work through their pregnancy; 32% take antenatal leave with the expectation of returning to their job after delivery, and an additional 9% quit employment. A recent Census Bureau report showed that

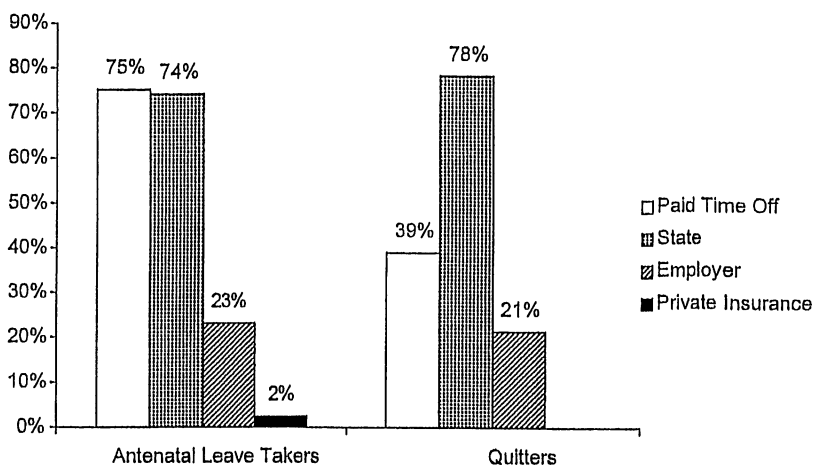


Fig. 2. Source of pay among working women with paid time off in three southern California counties, 2002-2003.

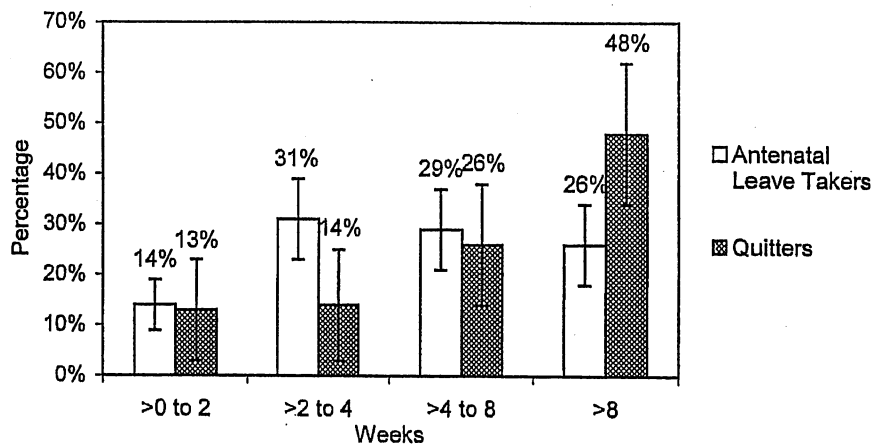


Fig. 3. Distribution (% and 95% confidence intervals) of length of time off among antenatal leave takers and quitters in three southern California counties, 2002-2003.

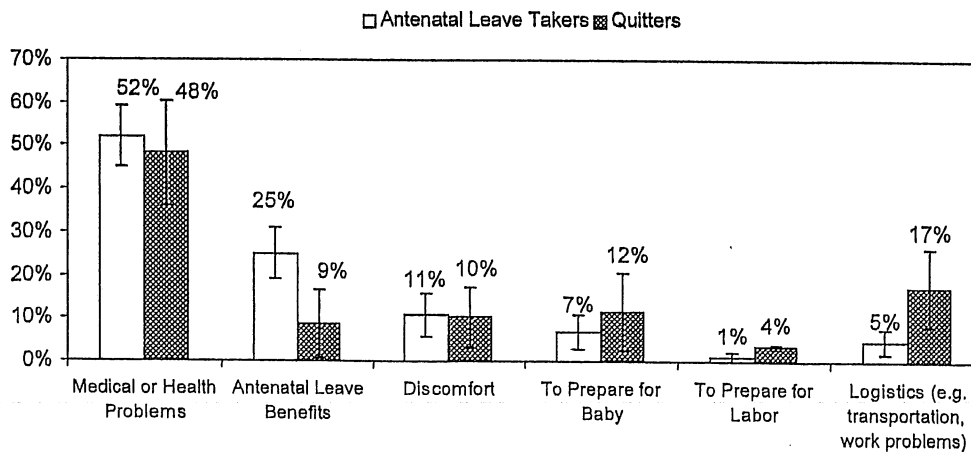


Fig. 4. Distribution (% and 95% confidence intervals) of reasons for stopping work among antenatal leave takers and quitters in three southern California counties, 2002-2003.

Table I. Characteristics Predicting Antenatal Leave Taking Versus Non-Leave Taking: Working Women in Three Southern California Counties, 2002–2003 ($n = 1214$)

	Leave takers		Non-leave takers		Adjusted OR ^a	95% CI ^b	
	<i>N</i>	Weighted (%)	<i>N</i>	Weighted (%)		Lower	Upper
Occupation							
Managerial	166	44	297	48	1.0	—	—
Clerical	136	37	213	30	1.0	0.6	1.8
Service	51	15	94	16	1.1	0.5	2.2
Manufacturing	16	4	39	5	1.2	0.4	3.9
Shift							
Day	267	77	515	81	1.0	—	—
Evening	12	1	18	4	0.3	0.0	1.6
Night	17	6	18	2	2.7	1.0†	7.2
Combination	73	16	92	13	1.1	0.6	1.9
Years employed							
<1	46	12	112	18	0.4	0.2	0.9
1 to <2	70	17	122	20	0.7	0.4	1.3
2 to <5	152	44	245	37	1.0	0.6	1.8
>5	95	27	151	24	1.0	—	—
Company size							
1 to 9	60	17	126	18	1.1	0.6	2.3
10 to 49	103	26	170	26	1.0	0.5	1.7
50 to 249	75	22	151	24	0.8	0.4	1.4
>250	125	35	194	31	1.0	—	—
Work flexibility							
Yes	189	55	309	49	1.0	—	—
No	180	45	333	51	0.7	0.4	1.0
Fulfilled by job							
Yes	250	66	501	77	1.0	—	—
No	119	34	142	23	1.6	1.0	2.6
Job strain							
Low strain	82	21	111	19	1.0	—	—
Passive	86	24	179	26	0.9	0.5	1.8
Active	92	22	169	27	0.8	0.4	1.6
High strain	108	33	182	28	1.5	0.8	2.8
Maternity leave offered							
Yes	244	69	409	66	1.0	—	—
No	123	31	233	34	1.0	0.6	1.5
Annual income							
<25 K	67	17	126	18	1.2	0.5	2.6
25 to 62 K	119	32	172	23	1.3	0.7	2.2
>62 K	182	52	341	59	1.0	—	—
Education							
<12	25	6	90	14	0.4	0.1	1.1
12	79	25	111	16	2.2	1.1	4.5
Some college	104	28	142	21	1.2	0.7	2.2
College graduate	161	42	299	50	1.0	—	—
Age							
<25	68	17	112	14	1.4	0.6	3.2
25 to 29	105	29	183	30	1.3	0.6	2.7
30 to 34	148	41	243	40	1.4	0.7	2.8
>34	48	13	105	16	1.0	—	—
Marital status							
Married/cohabit	341	93	588	93	1.0	—	—
Other	28	7	55	7	0.7	0.3	1.5

Table I. Continued

	Leave takers		Non-leave takers			95% CI ^b	
	N	Weighted (%)	N	Weighted (%)	Adjusted OR ^a	Lower	Upper
Race/ethnicity							
White	149	48	268	48	1.0	—	—
Hispanic	141	39	243	35	0.9	0.5	1.5
Other	79	13	132	17	0.8	0.4	1.3
No. of children <5 years of age							
0	156	41	354	51	1.0	—	—
1	116	34	183	34	1.1	0.7	1.8
>1	97	26	106	15	2.1	1.2	3.7
Stress/tired							
Low	143	39	340	57	1.0	—	—
Medium	141	40	228	34	1.9	1.2	3.0
High	85	21	75	9	4.3	2.2	8.2
Insurance offered							
Yes	233	68	433	70	1.0	—	—
No	135	32	200	30	1.1	0.6	1.8

^aOR adjusted for all the covariates listed in the table.

^bUnrounded confidence interval does not include.

between 1991 and 1995, 35% of US pregnant working women took antenatal leave and 23% quit their jobs (2). Our findings suggest that paid state disability benefits offered in California are not contributing to excess antenatal leave taking or quitting among working women.

Among antenatal leave takers, the majority state that they stop work due to health reasons or physical discomfort that prevents them from carrying out their work activities. Women are far less likely to use time off to take advantage of the antenatal leave cash benefits, to prepare for the birth, or to give themselves rest and relaxation. Moreover, as our multivariate models indicate, the strongest predictors of leave taking compared to working through pregnancy are feeling stressed and tired during the second trimester and having children under the age of 5. These findings suggest that rather than being used predominantly as a health-promoting behavior, antenatal leave constitutes a coping response to stress and tiredness and the need to mother young children, in itself a potentially stressful and tiring activity. Our findings also indicate that antenatal leave is being used as a protective measure against occupational stressors such as night work and low control over job demands. Night shift workers were almost three times more likely than day shift workers to take antenatal leave. And, women in either passive or high-strain jobs with low control were more likely to take leave than quit their jobs, after controlling for other factors.

Women who are stressed and tired in the second trimester also tend to have more medical problems. Studies done abroad suggest that antenatal leave may protect against obstetric interventions and poor pregnancy outcomes (11,13,15). Physicians often advise women to take leave for hypertension, diabetes, preterm labor, or a history of reproductive adverse outcomes. According to one population-based study in Georgia, despite receiving advice from their physicians or nurses to stop working during pregnancy, only half of the high-risk patients followed this recommendation (16).

Three out of four antenatal leave takers received paid leave. Yet after controlling for other factors, household income did not seem to play an important role in predicting women's leave arrangements. Most class-related effects seem to be reflected by educational and occupational characteristics. The multivariate models, adjusted for demographic characteristics, identified lack of work flexibility, short work tenure, and no high school diploma, as deterrents of antenatal leave-taking. These findings point to potential barriers to leave-taking.

Most non-leave takers are offered leave by their employers and are eligible for state-funded benefits. Non-leave takers are more likely to be affluent and to have a post-graduate education compared to women who take antenatal leave or quit work. Non-leave takers are also more likely than leave takers to feel fulfilled with their work. These findings corroborate the recent Census Bureau report on national

Table II. Characteristics Predicting Leave Taking Versus Quitting: Working Women in Three Southern California Counties, 2002–2003 ($n = 1214$)

	Leave takers		Quitters		Adjusted OR ^a	95% CI ^b	
	<i>N</i>	Weighted (%)	<i>N</i>	Weighted (%)		Lower	Upper
Occupation							
Managerial	166	44	29	26	1.0	—	—
Clerical	136	37	36	36	0.7	0.2	2.5
Service	51	15	35	32	0.4	0.1	1.8
Manufacturing	16	4	8	6	0.2	0.0	1.4
Shift							
Day	267	77	75	69	1.0	—	—
Evening	12	1	11	12	0.6	0.1	2.2
Night	17	6	1	0	n/a	n/a	n/a
Combination	73	16	21	19	1.0	0.3	3.6
Years employed							
<1	46	12	21	18	0.5	0.1	2.8
1 to <2	70	17	33	36	0.2	0.1	1.1
2 to <5	152	44	36	32	1.2	0.3	4.9
>5	95	27	12	14	1.0	—	—
Company size							
1 to 9	60	17	31	30	0.3	0.1	1.5
10 to 49	103	26	31	27	0.6	0.2	2.4
50 to 249	75	22	26	27	0.5	0.1	1.8
>250	125	35	18	16	1.0	—	—
Work flexibility							
Yes	189	55	51	46	1.0	—	—
No	180	45	27	54	0.5	0.2	1.2
Fulfilled by job							
Yes	250	66	65	67	1.0	—	—
No	119	34	43	33	1.3	0.5	3.1
Job strain							
Low strain	82	21	37	41	1.0	—	—
Passive	86	24	33	23	2.9	0.9	9.6
Active	92	22	21	14	1.8	0.5	6.3
High strain	108	33	17	21	4.7	1.4	15.5
Maternity leave offered							
Yes	244	69	31	31	1.0	—	—
No	123	31	77	69	0.4	0.2	0.9
Annual income							
<25 K	67	17	36	28	2.5	0.5	12.0
25 to 62 K	119	32	36	34	3.1	0.8	12.4
>62 K	182	52	36	38	1.0	—	—
Education							
<12	25	6	31	23	0.1	0.0	0.9
12	79	25	27	24	1.5	0.3	7.9
Some college	104	28	24	33	0.5	0.1	2.0
College graduate	161	42	25	20	1.0	—	—
Age							
<25	68	17	37	38	0.2	0.0	1.2
25 to 29	105	29	31	33	0.3	0.1	1.1
30 to 34	148	41	30	21	1.1	0.3	4.4
>34	48	13	10	8	1.0	—	—
Marital status							
Married/cohabit	341	93	95	91	1.0	—	—
Other	28	7	13	9	1.3	0.3	5.7

Table II. Continued

	Leave takers		Quitters		Adjusted OR ^a	95% CI ^b	
	N	Weighted (%)	N	Weighted (%)		Lower	Upper
Race/ethnicity							
White	149	48	42	45	1.0	—	—
Hispanic	141	39	57	48	1.1	0.4	3.5
Other	79	13	9	7	1.9	0.3	11.0
No. of children <5 years of age							
0	156	41	46	55	1.0	—	—
1	116	34	34	23	2.2	0.8	5.8
>1	97	26	28	22	2.4	0.7	7.8
Stress/tired							
Low	143	39	50	56	1.0	—	—
Medium	141	40	30	21	8.2	2.5	26.5
High	85	21	28	23	0.8	0.2	2.3
Insurance offered							
Yes	233	68	33	34	1.0	—	—
No	135	32	72	66	0.5	0.2	1.7

^aOR adjusted for all the covariates listed in the table.

maternity leave and employment patterns (2). The results further suggest that a strong work attachment and fear of sacrificing career advancement opportunities deter such women from taking leave, rather than immediate financial need. Non-leave takers also feel less stressed and/or tired during the second trimester of pregnancy, allowing them to work through pregnancy and bank leave for after childbirth. Future studies must determine how this affects birth outcomes and postpartum adjustment.

Lack of maternity leave benefits appears to create a work disincentive as does lack of health insurance since women are more likely to terminate their employment if their employer does not offer such benefits. In contrast, maternity leave offers by the employer may increase the likelihood that women will plan to return to their jobs sometime after childbirth. Employers who offer antenatal leave benefits may perhaps promote worker retention thereby minimizing turnover costs (17).

The findings from this study require cautious interpretation. Self-appraised measures such as job fulfillment or levels of stress and fatigue are vulnerable to recall bias (18). Yet, women interviewed up to 16 weeks postpartum were as likely to report high stress as women interviewed later, suggesting that recall of stress was not strongly biased by time of interview. Similar lack of recall bias of stressful events has been found in retrospective studies using PRAMS (19). We were unable to confirm the reported employment and leave patterns, benefits, or demo-

graphics of our study population, yet these measures are objective and presumably less subject to recall bias (16). Furthermore, we employed seasoned telephone interviewers and provided training and continuous feedback. Non-leave takers could have been subject to misclassification as we were unable to identify women who used sick and vacation days off in lieu of formal leave. Non-leave takers may have had less opportunity to take leave due to preterm delivery. However, we estimate that only 0.3% of non-leave takers would have taken leave had they not delivered early. Furthermore, because younger women were underrepresented in our study, the proportion of quitters may be underestimated. In addition, compared to census data, our sample included a higher proportion of professional and managerial women and a lower proportion of workers in clerical, high skilled technical and manufacturing jobs (20).

We conclude that availability of benefits does not alone determine antenatal leave-taking behaviors; occupational factors, education, stress and fatigue influence women's decision making on this issue. Working pregnant women in California appear to be cautious in their leave-taking behaviors utilizing antenatal leave less for health promotion than to cope with health problems and fatigue. Health care providers can facilitate access to antenatal leave for working women for whom leave is necessary by fostering an environment that promotes antenatal leave as a viable option. More information about patterns and correlates of antenatal leave utilization can help

Table III. Characteristics and Determinants of Quitters Versus Non-Leave Takers: Working Women in Three Southern California Counties, 2002–2003 (*n* = 1214)

	Quitters		Non-leave takers		Adjusted OR ^a	95% CI ^b	
	<i>N</i>	Weighted (%)	<i>N</i>	Weighted (%)		Lower	Upper
Occupation							
Managerial	29	26	297	48	1.0	—	—
Clerical	36	36	213	30	1.0	0.4	2.8
Service	35	32	94	16	1.5	0.5	4.3
Manufacturing	8	6	39	5	1.2	0.2	6.6
Shift							
Day	75	69	515	81	1.0	—	—
Evening	11	12	18	4	1.5	0.3	6.6
Night	1	0	18	2	n/a	n/a	n/a
Combination	21	19	92	13	1.7	0.7	4.1
Years employed							
<1	21	18	112	18	0.8	0.2	3.5
1 to <2	33	36	122	20	2.0	0.6	6.8
2 to <5	36	32	245	37	1.3	0.4	4.4
>5	12	14	151	24	1.0	—	—
Company size							
1 to 9	31	30	126	18	0.8	0.2	2.6
10 to 49	31	27	170	26	0.9	0.3	2.6
50 to 249	26	27	151	24	1.3	0.4	4.0
>250	18	16	194	31	1.0	—	—
Work flexibility							
Yes	51	46	309	49	1.0	—	—
No	27	54	333	51	1.2	0.6	2.4
Fulfilled by job							
Yes	65	67	501	77	1.0	—	—
No	43	33	142	23	0.7	0.3	1.6
Job strain							
Low strain	37	41	111	19	1.0	—	—
Passive	33	23	179	26	0.5	0.2	1.3
Active	21	14	169	27	0.6	0.2	1.8
High strain	17	21	182	28	0.4	0.1	1.4
Maternity leave offered							
Yes	31	31	409	66	1.0	—	—
No	77	69	233	34	2.9	1.3	6.5
Annual income							
<25 K	36	28	126	18	0.5	0.1	2.0
25 to 62 K	36	34	172	23	0.7	0.3	2.0
>62 K	36	38	341	59	1.0	—	—
Education							
<12	31	23	90	14	1.1	0.2	5.0
12	27	24	111	16	1.7	0.5	6.0
Some college	24	33	142	21	2.6	0.8	8.7
College graduate	25	20	299	50	1.0	—	—
Age							
<25	37	38	112	14	4.8	0.9	25.4
25 to 29	31	33	183	30	3.1	0.7	15.0
30 to 34	30	21	243	40	1.4	0.3	6.2
>34	10	8	105	16	1.0	—	—
Marital status							
Married/cohabit	95	91	588	93	1.0	—	—
Other	13	9	55	7	0.5	0.2	1.6

Table III. continued

	Quitters		Non-leave takers			95% CI ^b	
	N	Weighted (%)	N	Weighted (%)	Adjusted OR ^a	Lower	Upper
Race/ethnicity							
White	42	45	268	48	1.0	—	—
Hispanic	57	48	243	35	1.1	0.4	2.7
Other	9	7	132	17	0.5	0.2	1.7
No. of children <5 years of age							
0	46	55	354	51	1.0	—	—
1	34	23	183	34	0.5	0.2	1.1
>1	28	22	106	15	1.1	0.4	2.9
Stress/tired index							
Low	50	56	340	57	1.0	—	—
Medium	30	21	228	34	0.4	0.2	1.1
High	28	23	75	9	4.4	1.6	12.2
Insurance offered							
Yes	33	34	433	70	1.0	—	—
No	72	66	200	30	3.7	1.6	8.6

^aOR adjusted for all the covariates listed in the table.

form evidenced-based health care guidelines, educate women on the importance of adhering to these guidelines, and inform public policy and legislation. Job-protected, paid antenatal leave can strengthen work stability and economic security, while potentially promoting women's health.

ACKNOWLEDGMENTS

Funding for this study was obtained from the Maternal and Child Health Bureau (award #R40 MC00305-01). The senior author initially developed this paper during a residency at the Bellagio Conference and Study Center, Rockefeller Foundation. The authors thank Alan Hubbard for statistical consultation, and Lora Santiago and Judy Bolstad for clerical assistance.

REFERENCES

1. U.S. Department of Labor, Women's Bureau, 2003.
2. Smith K, Downs B, O'Connell M. Maternity leave and employment patterns: 1961-1995. Current Population Reports. U.S. Census Bureau, Washington, DC, 2001, pp. 70-79.
3. Waldfogel J. Family leave coverage in the 1990s. Monthly Labor Review. 1999; October 13-21.
4. Stillman JM. Perspectives on women's occupational health. *J Med Women's Assoc* 2000;55:69-71.
5. Kameron S. From maternity to parental leave policies: Women's health, employment, and child and family well-being. *J Med Women's Assoc* 2000;55:96-9.
6. Speroff L. The effect of aging on fertility. *Curr Opin Obstet Gynecol* 1994;2:115-20.
7. The Family and Medical Leave Act of 1993. Publication No. 103-3, 29 USC#2601 (1993).
8. Commission on Family and Medical Leave (United States). A workable balance: Report to Congress on family and medical leave policies, United States, Department of Labor, Women's Bureau, Washington, DC, 1996.
9. California Employment Development Department. Quarterly Report of State Sponsored Non-Disability Insurance, terminated pregnancy claims, 1989-2003. Disability Insurance Division, 2003.
10. Ceron-Mireles P, Sanchez-Carrillo C, Harlow S, Nunez-Urguiza R. Conditions of maternal work and low birth weight in Mexico City. *Salud Publica de Mexico* 1997;39:2-10.
11. Ceron-Mireles P, Harlow S, Sanchez-Carrillo C. The risk of prematurity and small for gestational-age birth in Mexico City. The effects of working conditions and antenatal leave. *Am J Public Health* 1996;86:825-31.
12. Alegre A, Rodriguez-Escudero FJ, Cruz E, Prada M. Influence of work during pregnancy on fetal weight. *J Reprod Med* 1984;29:334-6.
13. Karasek R, Theorell T. *Healthy Work*, Basic Books, New York, 1990.
14. Sas Institute, Inc. Cary, North Carolina, 2004.
15. Xu Q, Séguin L, Goulet L. Effet bénéfique d'un arrêt du travail avant l'accouchement. *Revue Canadienne de Santé Publique*, 2002; January-February pp. 72-77.
16. Frazier L, Goldberg A, Lipcomb L. Medically recommended cessation of employment among pregnant women in Georgia. *Obstet Gynecol* 2001;97:971-5.
17. Dube A, Kaplan E. Paid Family Leave in California: An analysis of costs and benefits, Department of Economics, University of California, June 19, 2002.
18. Lobel M, Dunkel-Shetter C, Scrimshaw S. Prenatal maternal stress and prematurity: A prospective study of socioeconomically disadvantaged women. *Health Psychol* 1992;11:32-40.
19. Whitehead N, Hill H, Brogan D, Blackmore-Prince C. Exploration of threshold analysis in the relation between stressful life events and preterm delivery. *American Journal of Epidemiology* 2002;155:117-24.
20. Bureau of the Census, Current Population Survey, March 2001.