

The Juggling Act

BY SHERRIE NEGREA

Over the last four decades, the proportion of working mothers with children ages 18 and younger at home in the United States has skyrocketed from 47 percent in the mid-1970s to 71 percent last year, according to the U.S. Bureau of Labor Statistics. More mothers are working full-time, year-round than ever before.

Yet the progress of integrating mothers into the labor force has not come without challenges. Although a growing number of fathers opt to stay at home part- or full-time with children, in the United States prevailing gender norms still suggest that women, employed or not, are primarily responsible for child-rearing. (Indeed, a 2011 Census Bureau report on child care in America assumed the mother to be the “designated parent” in households headed by two parents.) And working-class women, in particular, spend a greater proportion of their income on child care and face trouble juggling career and family because of unstable work environments.

Researchers across the College of Human Ecology—social scientists, developmental psychologists, economists, demographers, and nutrition experts—are studying these broad trends to help paint a clearer picture of the demands facing working mothers. Their investigations raise important questions about how to reshape governmental policies and social structures to provide more stability for mothers trying to manage the work-family balance.

In the Department of Policy Analysis and Management, a common thread is the diverging fortunes between middle- and upper-income and working-class mothers. The most highly educated mothers, for example, are more likely to return and remain in the workforce after the birth of a child than are less-educated mothers. >>>



Sharon Sassler



John Cawley



Lorraine Maxwell



Rachel Dunifon

“The reality is that professional women are more likely to be in the labor force,” said Sharon Sassler, professor of policy analysis and management who studies family dynamics. “In part, that’s because the workforce wants to accommodate them. They’re highly skilled, and they’re harder to replace.” The percentage of women in the workforce who have a college degree has more than tripled in the past 40 years.

Dunifon and her co-authors find that children of mothers who work the night shift—between 11 p.m. and 7 a.m.—exhibit higher levels of aggressive behavior than children of mothers who work other schedules.

By contrast, working mothers in lower-skilled jobs, such as those employed in the 24/7 service economy, often churn in and out of the labor force or have irregular schedules that make it difficult to meet their families’ needs. For instance, their job instability and fluctuating schedules are associated with higher levels of behavioral and school-related problems in their children, finds Rachel Dunifon, associate professor of policy analysis and management.

The working patterns of highly educated women are markedly different from those of less educated women, creating a growing divide among employed mothers, Sassler’s research shows. In a 2010 paper, for example, Sassler and her co-authors report that among women who gave birth to their first child between 2001 and 2003, 82 percent of college-educated women were working during their pregnancies, compared to less than a third of those who did not graduate from high school.

Sassler has recently shifted her research to the lack of women working in STEM (Science, Technology, Engineering, and Math) fields. In a recent study based on a nationally representative sample of men and women, nearly 90 percent of whom had obtained their college degree by 1990, Sassler and her co-researchers find that the dearth of women in STEM fields is related to the work climate they face in these

positions, since women are less likely than men to enter into these fields when they have identical experience and expectations about their careers.

Even when they do work in STEM positions, half of such women leave for other fields within 12 years of completing their degrees, they found. Motherhood, a common culprit, does not appear to be to blame for the shortage, Sassler argues, finding that “women in STEM positions are no more likely to leave the labor force when they have children.” Sassler, who in recent years has received funding from the National Science Foundation and the National Institutes of Health to study the matter, suggests that a better understanding of the work climate STEM women face and the factors that prompt them to leave the field could help retain them.

The underrepresentation of women in STEM positions, particularly in academia, is also the focus of the Cornell Institute for Women and Science (CIWS), founded by Wendy M. Williams, a professor of human development, and Stephen J. Ceci, the Helen L. Carr Professor of Developmental Psychology. Williams and Ceci argue that the lack of women in academic positions in engineering, physics, and mathematics departments results from women opting not to apply for tenure-track jobs because of the incompatibility of research professorships with raising children. CIWS is attempting to combat this trend by informing university administrators, professors, and others about the challenges women face in STEM positions and recommending policy changes for the academy (see sidebar on page 18).

At the other end of the spectrum, working mothers employed in low-wage jobs face drastically different parenting challenges that relate to the conditions of their work, according to Dunifon. In a 2010 book, *Mother’s Work and Children’s Lives: Low-Income Families after Welfare Reform*, Dunifon and her co-authors report that for some less-advantaged mothers, work can bring stability but others face long commutes, nonstandard hours, low-wage jobs, and menial labor.

“The conditions of jobs common in the low-wage market do pose difficulties for mothers,” Dunifon said. “Service-sector jobs often have schedules that change day to day, making it difficult for mothers to arrange child care, plan meals together, or enact other important family routines. These jobs also have high levels of turnover.”



Kathleen Rasmussen

Using a sample of predominately single Michigan mothers who left welfare beginning in the late 1990s, Dunifon finds that children fare better when their mothers are employed in stable jobs. Most of the women in the five-year study, however, held jobs that lasted only for an average of seven months.

Besides job instability, Dunifon's research identifies two factors in low-wage employment that are associated with behavioral problems in children:

working the night shift and commuting long distances. In a recent study, Dunifon and her co-authors find that children of mothers who work the night shift—between 11 p.m. and 7 a.m.—exhibit higher levels of aggressive behavior than children of mothers who work other schedules. Similarly, children of mothers who commute long distances, defined as an average of 80 minutes per day, had more behavior problems, including aggression, withdrawal, and depression.

To reverse these trends, Dunifon argues that employers, especially those in the service sector, should strive to offer more stable schedules and that more funding be allocated for education and training programs. "Investing in improving the skills of single mothers would not only help the moms but also the kids," she said.

Working moms struggle with children's nutrition

As new mothers re-enter the workforce, one of the first challenges they face is how to continue breastfeeding their infants. The American Academy of Pediatrics recommends that mothers breastfeed their children for at least 12 months. But in the United States, 23 percent of infants born in 2006 were breastfeeding at 1 year of age, according to the Centers for Disease Control and Prevention.

Yet over the last decade, according to Kathleen Rasmussen, professor of nutritional sciences, a "quiet revolution" has been taking place in the feeding of U.S. infants as more women have been using electric double-breast pumps, developed by Medela, a Swiss company, that are more effective and more affordable than previous models. "Having a pump like this available allows you to pump your milk in sufficient quantities so you can store enough milk to breastfeed your baby longer in life," Rasmussen said.

When breastfeeding mothers return to work, they must find suitable places to express their milk. In 2008, Cornell's Department of Inclusion and Workforce Diversity asked Lorraine Maxwell, associate professor of design and environmental analysis, if her "Programming Methods in Design" class could create recommendations for developing lactation rooms on campus. Among the suggestions made by the class were that the lactation rooms be places where the women felt comfortable, such as a space that is part of a restroom suite, and that the space be secure and private.

"Cornell had already identified the need," Maxwell said.

"It was mostly for staff and graduate students since faculty women have their own offices. But staff and graduate students often work in large, open areas. Maybe they have a cubicle, but it's not a private place."

Using the class's recommendations, Cornell built 14 formal lactation rooms in addition to the three that were already in place. "The students not only inspired us to increase the number of lactation rooms but also provided guidance on what should be included in each room," said Lynette Chappell Williams, associate vice president for the Department of Inclusion and Workforce Diversity.

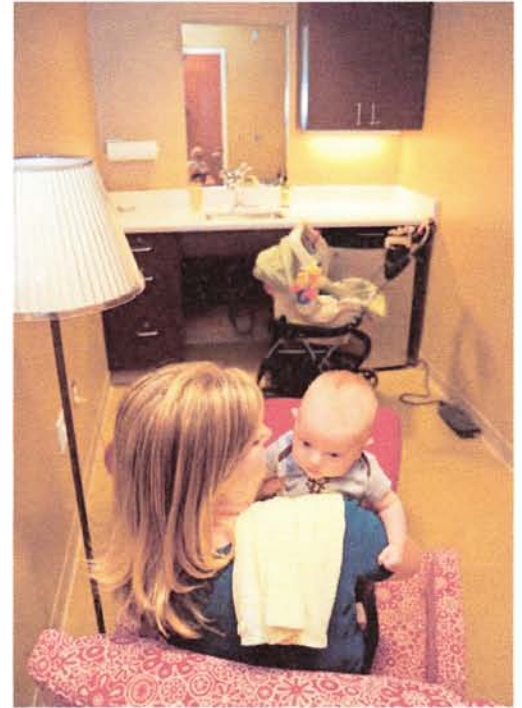
As their children grow older, working mothers remain concerned about their families' nutrition. The rise of maternal employment since the 1970s has coincided with a spiraling increase in childhood obesity, leading many researchers to conclude that children are more likely to be overweight if their mothers work.

Why this correlation exists is the focus of a recent study coauthored by John Cawley, professor of policy analysis and management who researches the economic causes and consequences of obesity. Using a national survey documenting how Americans spend their time, Cawley finds that women who work full time spend about three-and-a-half fewer hours per day on activities such as grocery shopping, preparing meals, and playing with their children, compared to stay-at-home and unemployed mothers.

Men offset little of this decrease, however. Cawley's study

finds that in homes with employed mothers, working fathers contribute just 13 extra minutes to such daily activities while nonworking fathers devote 41 additional minutes to these chores.

To compensate >>>



A mother and newborn in a new lactation room in Martha Van Rensselaer Hall, offering privacy and convenience for nursing mothers.

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for the time lost while at work, mothers are more likely to purchase prepared foods either from restaurants or grocery stores, a phenomenon that is linked to a higher risk of childhood obesity.

Working mothers should not shoulder the blame, Cawley cautioned. Indeed, they produce additional benefits for children such as more money to provide for family needs. Furthermore, the study does not prove that employment alone drives the way mothers spend their time.

“Mothers who choose to work might be those who enjoy cooking less and who would cook less whether they are working or not,” Cawley said.

“Even if one thinks that there is a causal relationship, you don’t have to turn back the clock with respect to women’s labor force participation to address the problem of childhood obesity,” he said.

What could combat rising childhood obesity rates, Cawley said, are new laws that will require chain restaurants to post calorie counts for their products and a commitment by schools to promote healthy eating and offer more physical education classes.

“I think that one of the most important contributions that social scientists can make is to offer a dispassionate investigation of sensitive and emotional topics,” he said. “The responsibility of the social scientist is to do careful, honest work and promote an open, reasoned discussion of such issues.”

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Institute Aims to Remove Barriers to Woman Scientists

BY WENDY M. WILLIAMS,
PROFESSOR OF HUMAN
DEVELOPMENT

In late 2009, Stephen J. Ceci and I founded the Cornell Institute for Women in Science (CIWS) with funding by the National Institutes of Health to seek answers through empiricism rather than social activism concerning the lack of women in science. Women are underrepresented in many fields of academic science, particularly computer science, physics, engineering, chemistry, economics, and mathematics, where they comprise less than a third of assistant professors and less than 12 percent of full professors. CIWS relies on original research by its own members and other scholars to develop strategies to address today’s issues affecting women in science.

It soon became clear that the usual culprits—sex discrimination in hiring, promotion, and grant and manuscript reviewing—no longer accounted for the current dearth of women in academic science. In fact, according to a National Research Council report from 2010, if women today apply for tenure-track jobs in science, technology, engineering, and mathematics (STEM) fields, their chances of being interviewed and hired top those of men. CIWS research showed that young women scientists in college, graduate school, and postdoctoral years choose not to apply for tenure-track jobs due to the incompatibility of high-stakes research professorships with the biological clock.

University policies dating from the era when men with stay-at-home wives populated the academy place women in the unfortunate situation of having to produce a significant portfolio of scholarship to be reviewed favorably for tenure—all at the exact same time as birthing and rearing small children. CIWS has found that changing the policies that create a decade-long impossible squeeze for women scientists must be a major part of the focus of efforts to attract more women scientists into the academy.

With fully half of its efforts directed toward outreach, education, and extension work, CIWS aims to effectively inform university administrators, professors, and young women scientists themselves, as well as their parents and teachers, about the challenges. CIWS has produced and released a video series on its YouTube channel with educational and inspirational videos profiling women in science ranging in age from 8 to 68. Profiles include the 14-year-old winner of the national Google Science Fair, an exhibitions curator at Ithaca’s Sciencenter who earned one of the first Ph.D.s in physics at Cornell bestowed to a woman, a 26-year-old international energy engineer, and a portrait of three young girls talking about how they discovered their love of science.

Each video, empirically validated to enhance women’s interest in science, is accompanied by an extension-education module appropriate for middle and high school on up. The modules provide relevant summaries of background literature and references, and offer key questions for classroom discussion to help students reason creatively with the issues. All CIWS materials—including the entire curriculum, all scientific publications, and media interviews—are available free for public download. The College of Human Ecology, with its mission to unite research and outreach, has provided the perfect home for CIWS and its work to translate empirical research on women in science into meaningful, high-impact policy change.



Carol Jennings, Park Productions



Stills from one of the CIWS videos where young girls visit the Ithaca Sciencenter and speak about their love of science.

For more information:

CIWS
www.human.cornell.edu/hd/ciws.cfm

Women in Science
YouTube Channel
www.youtube.com/user/womeninscience1