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I. INTRODUCTION

According to *Working Mother* magazine, telecommuting is a "wonderful arrangement for working moms."[1] Advertisements for telecommuting jobs and related technologies show us pictures of these happy telecommuting moms, who are conducting important business on the telephone or typing busily at their computers, as their smiling toddlers play quietly by their sides or sit contentedly in their laps.[2] Some employers have offered this wonderful experience in direct response to concerns raised by "women's issues" committees.[3] That was probably just what Jack Nilles had in mind when he first coined the term "telecommuting" in the 1970s and described it as a way to make life better for women with primary childcare responsibility.[4] Feminist legal scholars recently have joined these pro-telecommuting ranks by advocating telecommuting as one way to restructure the workplace away from male worker norms and toward a greater equality for women workers.[5]

1. Lynne S. Dumas, *Home Work: The Telecommuting Option*, WORKING MOTHER, July 1994, at 22, 24.

2. *E.g.*, Telecommute-jobs.com, *at* http://www.telecommute-jobs.com (last visited Sept. 18, 2002) (on file with author) (advertising telecommuting job openings); Telecommute Job Listing Information, *at* http://www.telecommuting-jobs.org/join/mem_intro.shtml, http://www.telecommuting-jobs.org/telecommuting.htm, and http://www.telecommuting-jobs.org/about.shtml (last visited Sept. 18, 2002) (on file with author) (providing a telecommuting job listing service); *see also* Tema Frank, *Telecommuting Tips*, *at* http://www.mochasofa.com/work/program/expert/01june04.asp (last visited Sept. 18, 2002) (on file with author) (describing the pros and cons of telecommuting); Ursula Huws, *Telework: Projections*, FUTURES, Jan./Feb. 1991, at 19, 25 (providing examples of the technology industry's propaganda framing telecommuting as a way to save "the family"); Sara Pitman, *Home Sweet Home—Sweet Work? Telecommuting: The Convergence of Work, Home and Family Spheres*, *at* http://www.iamot.org/~chiklink/453home.html (last visited Sept. 18, 2002) (on file with author) (describing the idealistic media portrayal of telecommuting).

3. *See, e.g.*, Mark Brewer, *A Remote Possibility*, 16 No. 2 LEGAL MGMT., Mar./Apr. 1997, at 92, 94 (describing the telecommuting policy of law firm Hale and Dorr).

4. *See* Barbara J. Risman & Donald Tomaskovic-Devey, *The Social Construction of Technology: Microcomputers and the Organization of Work*, BUS. HORIZONS, May/June 1989, at 71, 72.

5. *See, e.g.*, JOAN WILLIAMS, UNBENDING GENDER: WHY FAMILY AND WORK CONFLICT AND WHAT TO DO ABOUT IT 85 (2000) [hereinafter WILLIAMS, UNBENDING GENDER]; Deborah L. Rhode, *Balanced Lives*, 102 COLUM. L. REV. 834, 844 (2002); Deborah J. Vagins, Note, *Occupational Segregation and the Male-Worker-Norm: Challenging Objective Work Requirements Under Title VII*, 18 WOMEN'S RTS. L. REP. 79, 90, 92-93 (1996).

To the extent that these telecommuting advocates have gone beyond just paint-
ing idyllic images, they have theorized two related "gender-equalizing" effects.
First, advocates predict that telecommuting will help decrease the gendered divi-
sion of labor in the paid labor market by decreasing the existing sex segregation
and sex-based hierarchy in the workplace. Women are overrepresented in low-
paid, low-status jobs, often in service, clerical, and sales positions.[6] Although
approximately 46% of the American workforce is made up of women with virtu-
ally the same education and skills as men, women hold only 5% of all top-level
jobs.[7] Telecommuting advocates predict that telecommuting will change this situ-
ation and allow women access to a wider range of jobs, including high-level man-
agement and executive positions, by providing a more effective way to combine

6. *See* JAMIE FARICELLIA DANGLER, HIDDEN IN THE HOME: THE ROLE OF WAGED HOMEWORK IN THE
MODERN WORLD-ECONOMY 103 (1994) ("That women have been largely confined to the lowest-
paying, lowest-status jobs in the economy has been amply documented by labor historians, econo-
mists, and sociologists alike."); ROBERT L. NELSON & WILLIAM P. BRIDGES, LEGALIZING GENDER
INEQUALITY: COURTS, MARKETS, AND UNEQUAL PAY FOR WOMEN IN AMERICA 26, 51 (1999) (docu-
menting the "high levels of sex segregation by job" and the "intractability of gender-based hier-
archies in many organizations"); WILLIAMS, UNBENDING GENDER, *supra* note 5, at 81 (noting that
"[a] majority of working women in the United States hold low-paid, traditionally female jobs,"
with nearly 60% of women in service, clerical, and sales positions, and women making up 98%
of secretaries, typists, and billing clerks); Kathryn Abrams, *Gender Discrimination and the Trans-
formation of Workplace Norms*, 42 VAND. L. REV. 1183, 1204 (1989) (stating that "women tend
to occupy the lower rungs of most professional hierarchies"); Ann Bookman, *Flexibility at What
Price? The Costs of Part-Time Work for Women Workers*, 52 WASH. & LEE L. REV. 799, 804
(1995) (noting that almost 60% of women in the paid labor market are clustered in low-paying
service, clerical, and sales jobs); Andrew Calabrese, *Home-Based Telework and the Politics of
Private Woman and Public Man: A Critical Appraisal, in* WOMEN AND TECHNOLOGY 161, 163
(Urs E. Gattiker ed., 1994) (stating that "[i]t is well recognized that there [is an] unequal sexual
division[] of labor" in paid work); Eileen Green, *Gender Perspectives, Office Systems and Or-
ganizational Change, in* WOMEN, WORK AND COMPUTERIZATION: BREAKING OLD BOUNDARIES—BUILD-
ING NEW FORMS 365, 367 (Alison Adam et al. eds., 1994) (describing "the historical development
of gendered occupational groupings and jobs"); Karen Gunter, *Women and the Information Revo-
lution: Washed Ashore by the Third Wave, in* WOMEN, WORK AND COMPUTERIZATION: BREAKING
OLD BOUNDARIES—BUILDING NEW FORMS 439, 442-43 (Alison Adam et al. eds., 1994) (describ-
ing the "high degree of segregation between men and women in employment"); Daniel Gyebi,
*The Civil Rights Act of 1991: Favoring Women and Minorities in Disparate Impact Discrimina-
tion Cases Involving High-Level Jobs*, 36 HOW. L.J. 97, 112-14 (1993) (citing evidence of women's
"glass ceiling"); Helena Karasti, *What's Different in Gender Oriented ISD?: Identifying Gender
Oriented Information Systems Development Approach, in* WOMEN, WORK AND COMPUTERIZATION:
BREAKING OLD BOUNDARIES—BUILDING NEW FORMS 45, 53 (Alison Adam et al. eds., 1994) (ex-
plaining that most women are in the "lower levels" of hierarchies within occupations and orga-
nizations); Vicki Schultz & Stephen Petterson, *Race, Gender, Work, and Choice: An Empirical
Study of the Lack of Interest Defense in Title VII Cases Challenging Job Segregation*, 59 CHI. L.
REV. 1073, 1074-75 (1992) (describing the workforce as "remarkably" sex-segregated, with
women concentrated in low-wage, low-status jobs with few chances for advancement); Vagins,
supra note 5, at 79-81 (noting that in 1996, nearly half of all women in the workforce were in
jobs that were 80% female).

7. *See* WILLIAMS, UNBENDING GENDER, *supra* note 5, at 67 (citing research finding that women
hold about 13% of tenured academic positions, 6% of partnerships in large law firms, 3% of
executive positions at publicly traded corporations, 1% of the top-ranking partnerships in Wall
Street, 5.6% of partnerships at national accounting firms, and 3-5% of senior management posi-
tions at Fortune 1500 companies).

waged work with domestic responsibilities.[8] Proponents suggest that telecommuting will be particularly effective if it allows women to remain continuously employed, without interruptions during childbearing and early childrearing years.[9]

Second, advocates predict that telecommuting will decrease the gendered division of unpaid labor in the home. Despite the dramatic increase in the proportion of women in the paid labor force in the last twenty-five years, American women still perform 80% of childcare and two-thirds of core household tasks.[10] Women's entry into the paid workforce has not led to an equitable redistribution of unpaid work in the home, as women typically add market labor to their existing domestic responsibilities, rather than shifting unpaid work to men.[11] Telecommuting advocates predict that telecommuting will change this situation by reintegrating "work"

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8. *See* URSULA HUWS, THE NEW HOMEWORKERS: NEW TECHNOLOGY AND THE CHANGING LOCATION OF WHITE-COLLAR WORK 10-11 (1984) (describing the belief that telecommuting will open up new career options for women who want to combine domestic work with market work); ANNIE PHIZACKLEA & CAROL WOLKOWITZ, HOMEWORKING WOMEN: GENDER, RACISM AND CLASS AT WORK 1 (1995) (noting the view that telecommuting will allow women to better combine paid and unpaid work); Anne Fothergill, *Telework: Women's Experiences and Utilisation of Information Technology in the Home, in* WOMEN, WORK AND COMPUTERIZATION: BREAKING OLD BOUNDARIES—BUILDING NEW FORMS 333, 334 (Alison Adam et al. eds., 1994) (explaining that telecommuting is particularly appealing to women, "because they often want flexible ways of working to be able to combine paid work and family responsibilities"); Pitman, *supra* note 2 (suggesting that telecommuting may allow women greater access to higher level management and executive jobs); Rhode, *supra* note 5, at 844 (arguing that more women need access to telecommuting and other flexible arrangements to allow them to balance work and home responsibilities, "without jeopardizing their prospects for advancement"); Risman & Tomaskovic-Devey, *supra* note 4, at 72 (noting the belief that the flexibility of telecommuting will give women with primary childcare responsibility "greater income opportunities"); *see also* Nancy E. Dowd, *Resisting Essentialism and Hierarchy: A Critique of Work/Family Strategies for Women Lawyers*, 16 HARV. BLACKLETTER L.J. 185, 205 (2000) (identifying the assumption that "technology can free women and help in meeting multiple roles").

9. *See* HUWS, *supra* note 8, at 13 (explaining that one reason for the growth in telecommuting is women's need to be employed continuously in order to maintain up-to-date skills).

10. WILLIAMS, UNBENDING GENDER, *supra* note 5, at 2; Joan Williams, *Market Work and Family Work in the 21st Century*, 44 VILL. L. REV. 305, 308-09 (1999) [hereinafter Williams, *Market Work*]; *see also* Calabrese, *supra* note 6, at 163 (stating that "[i]t is well recognized that there [is an] unequal sexual division[] of labor in . . . unpaid work"); Marion Crain, *"Where Have All the Cowboys Gone?" Marriage and Breadwinning in Postindustrial Society*, 60 OHIO ST. L.J. 1877, 1877-78 (1999) (explaining that "women continue to perform the lion's share of the homemaking and caretaking duties," despite women's dramatic entry into the waged labor market in the last twenty-five years); Nancy E. Dowd, *Maternity Leave: Taking Sex Differences Into Account*, 54 FORDHAM L. REV. 699, 701, 705-06 (1986) (stating that the increase in the proportion of women in the workplace has not changed the fact that women have disproportionate responsibility for childrearing and housework); Penny Gurstein, *The Gendered Experiences of North American Home-Based Information Workers: What Can Be Learned for Asian Workers?*, AIT-ASAT Asia Conference, *at* http://gendevtech.ait.ac.th/gasat/papers/pennyp.html (last visited Sept. 13, 2002) (on file with author) (stating that even though "dual-earner or female-headed families [are] increasingly becoming the norm," most domestic work "still falls primarily on women").

11. Stuart C. Aitken & Matt Carroll, *Man's Place in the Home: Telecommuting, Identity and Urban Space, at* http://www.ncgia.ucsb.edu/conf/BALTIMORE/authors/aitken/paper.html (last visited Sept. 21, 2002) (on file with author) ("[D]espite the movement of women into paid work outside the home, men have shown little increase in their contributions to household work."); Nancy E. Dowd, *Work and Family: The Gender Paradox and the Limitations of Discrimination Analysis in Restructuring the Workplace*, 24 HARV. C.R.-C.L. L. REV. 79, 85 (1989) (stating that "[w]omen's entry into the paid workforce has not led to equitable redistribution of work," and

and "home" and facilitating a more egalitarian division of domestic labor.[12] As male telecommuters are able to substitute childcare for commute time, women workers should be able to devote more time to their paid work.[13] In the long-run, advocates suggest that telecommuting will facilitate an even more fundamental restructuring of the workplace, as employers no longer have an available workforce of "ideal workers" who have no commitments outside of their market work.[14]

To make these predictions, telecommuting proponents must assume that technological innovation will act as an independent variable in social and organizational change.[15] In other words, these advocates believe that new technology has the power to modify existing employment structures and gender roles.[16] Proponents rarely contemplate the possibility that telecommuting arrangements will vary for members of different groups according to existing power structures, resources, and the relative status of job categories within firms: i.e., they rarely contemplate the power of the status quo.[17]

Unfortunately, these telecommuting advocates are ignoring a growing body of sociological research that reveals a much less uniformly positive picture. Contrary to predictions, research on the performance of paid work from home indicates that, for many women, telecommuting is actually increasing gender inequality both in the workplace and in the home. Many women telecommuters are finding themselves in exploitative working conditions, as telecommuting arrangements are linked to contingent work status, lower pay, the loss of benefits, less job security, and fewer training and advancement opportunities.[18] As telecommuting reduces women's already low level of labor market power, it simultaneously exacerbates women's work/family conflicts, as women end up taking on even more

that "the predominant pattern has been the addition of wage work to women's existing unpaid household and childcare work"); Pitman, *supra* note 2 (noting that even though more women are in the paid workforce, they remain the primary caregivers and continue to perform the bulk of household chores); Williams, *Market Work, supra* note 10, at 315 (explaining that "women still shoulder virtually all the family work traditionally performed by housewives"); Joan Williams, *Toward a Reconstructive Feminism: Reconstructing the Relationship of Market Work and Family Work*, 19 N. ILL. U. L. REV. 89, 92, 144 (1998) [hereinafter Williams, *Reconstructive Feminism*] (stating that "mothers' entrance into the labor force has not been accompanied by fathers' equal participation in family work"); *see also* Crain, *supra* note 10, at 1914 (noting research finding that when women begin working in the paid labor market, their husbands often feel threatened and "retaliate by refusing to assume the burdens . . . of keeping a house and caring for children").

12. *See* Judy Wajcman & Belinda Probert, *New Technology Outwork, in* TECHNOLOGY AND THE LABOUR PROCESS: AUSTRALASIAN CASE STUDIES 51, 53-54 (Evan Willis ed., 1988) (noting the widely publicized literature predicting that telecommuting will reintegrate paid work with childcare and create "an egalitarian sexual division of labour"); Pitman, *supra* note 2 (describing the media portrayal of telecommuting as the means for equalizing men's and women's childcare roles).

13. *See* JUDY WAJCMAN, FEMINISM CONFRONTS TECHNOLOGY 40 (1991) (noting proponents' prediction that telecommuting will "lead to much more sharing of paid and unpaid domestic labour, as men and women spend more time at home"); Wajcman & Probert, *supra* note 12, at 53-54, 57 (explaining the "idealis[tic] picture of the future presented by enthusiasts for the 'electronic cottage,'" in which the "domestic dilemma is resolved when men bring their work back into the home, and become available for greater child care responsibilities").

14. *See* WILLIAMS, UNBENDING GENDER, *supra* note 5, at 85.

15. Risman & Tomaskovic-Devey, *supra* note 4, at 72.

16. *Id.*

17. *See id.* at 72, 74.

18. *See infra* notes 40-66 and accompanying text.

carework and domestic tasks.[19] For many women who face the greatest conflicts between waged and unwaged work, telecommuting technology has not acted as an independent variable to restructure the workplace around a caregiving worker norm, but instead has been adapted to and shaped by the status quo. More specifically, the data shows that telecommuting is working more like a dependent variable: employers are using existing power structures to co-opt the use of telecommuting technology to ultimately magnify the gender divides in both paid and unpaid work.[20]

If the underlying assumptions about the inherently positive effects of telecommuting continue to go unchallenged, telecommuting will likely become for many women a second generation "mommy track" that provides flexibility at the price of marginalization.[21] This result is only inevitable, however, if the implementation of telecommuting is left entirely in the hands of employers. Work/family conflict scholars and other telecommuting advocates are correct that new technology has the *potential* to advance women's workplace equality and improve women's economic position. But that potential is not inherent in the technology itself. The sociological research suggests that the gender-equalizing potential of new technologies may be realized only through external controls on the way in which that technology is introduced into the workplace.

To reach this conclusion, Part II will begin by reviewing the empirical research that telecommuting advocates thus far have ignored. By identifying the ways in which employers are using telecommuting to take advantage of many women's disproportionate caregiving role and preexisting lack of labor market power, this Part will undermine the view that telecommuting inevitably will produce greater equality for women workers. Rather than providing a step up for many women workers, telecommuting risks returning them back to many of the exploitative conditions historically faced by female industrial homeworkers.[22] Part

19. *See infra* notes 68-86 and accompanying text.

20. *See* Risman & Tomaskovic-Devey, *supra* note 4, at 72, 74; Donald Tomaskovic-Devey & Barbara J. Risman, *Telecommuting Innovation and Organization: A Contingency Theory of Labor Process Change*, 74 Soc. Sci. Q. 367, 370, 382-83 (1993); *see also* PHIZACKLEA & WOLKOWITZ, *supra* note 8, at 18 (arguing that telecommuting must be analyzed in the context of "an already sexually segregated labour market"); Gurstein, *supra* note 10 (arguing "against a technological determinist stance" that obscures gender analysis, and explaining how telecommuting magnifies preexisting power differentials that men and women exert in the labor market); Kurt Reymers, *Telecommuting: Attempts at the Re-Integration of Work and Family*, at http:// www.acsu.buffalo.edu/~reymers/telecomm.html (last visited Sept. 21, 2002) (on file with author) (analyzing the Risman & Tomaskovic-Devey research and concluding that "the elements of status and power come to affect the stratification of occupations within the telecommuting trend").

21. *See* Calabrese, *supra* note 6, at 184 (arguing that "[t]he idea that electronic communication technology [will] . . . dissolv[e] past gender-based inequities in domestic and marketplace divisions of labor is laudable only as well-intentioned complacency," and that "[t]he danger in leaving this assumption unexamined is that the social history and institutional realities which forcefully shape technological development are not critically evaluated"); *cf.* WILLIAMS, UN-BENDING GENDER, *supra* note 5, at 94 (describing "first-generation mommy track policies" as flexible arrangements, such as part-time work, that linked flexibility with workplace marginalization).

22. To the extent that employers' use of telecommuting resembles the historic use of industrial homeworking, telecommuting is also likely to have a negative impact along racial and ethnic lines. *See generally* PHIZACKLEA & WOLKOWITZ, *supra* note 8 (documenting the racial and ethnic effects of homeworking); Julia Kirk Blackwelder, *Texas Homeworkers in the 1930s, in* HOMEWORK: HISTORICAL AND CONTEMPORARY PERSPECTIVES ON PAID LABOR AT HOME 73 (Eileen Boris & Cynthia R. Daniels eds., 1989) (same); Eileen Boris, *Black Women and Paid Labor in*

II will also place this discussion within the context of broader sociological research on workplace technology, which has documented the repeated ways in which employers co-opt technology to create, maintain, and retrench the sex-based hierarchy and division of workplace labor.

Part III will then begin to explore the types of external controls that could be used to require employers to implement telecommuting in a gender-equalizing manner. In particular, this Part will focus on the possibility of enacting special, targeted legislation regulating telecommuting relationships. That was the approach originally taken to address exploitative industrial homeworking arrangements in the early and mid-twentieth century.[23] By revisiting the history of industrial homeworking legislation, this Part will conclude that similar telecommuting legislation risks further exacerbating the problem, by essentializing women's caregiving role. To ensure that telecommuting technology may be used effectively to help restructure the workplace around gender-neutral norms, telecommuting instead should be addressed through a broader, more general legal regime governing the organization of work.

II. THE TELECOMMUTING REALITY: CLIMBING UPWARD BACK TO STEP ONE

Telecommuting has two basic components. First, it involves an individual working for an organization from the individual's home during some portion of the workweek.[24] Second, it involves the use of computers, e-mail, facsimile, telephones, internet, and related telecommunications technology.[25] Telecommuting

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the Home: Industrial Homework in Chicago in the 1920s, in HOMEWORK: HISTORICAL AND CONTEMPORARY PERSPECTIVES ON PAID LABOR AT HOME 33 (Eileen Boris & Cynthia R. Daniels eds., 1989) (same); M. Patricia Fernandez-Kelly & Anna M. Garcia, *Hispanic Women and Homework: Women in the Informal Economy of Miami and Los Angeles, in* HOMEWORK: HISTORICAL AND CONTEMPORARY PERSPECTIVES ON PAID LABOR AT HOME 165 (Eileen Boris & Cynthia R. Daniels eds., 1989) (same). In addition, telecommuting's negative effect on women is related to women's low economic status and over-representation in jobs at the lower end of the workplace hierarchy, which are characteristics that are shared disproportionately by members of minority groups. This Article, however, focuses on telecommuting and gender, while recognizing that proposed solutions should be scrutinized for the risk of essentializing the experience of women who are white. *Cf.* Dowd, *supra* note 8, at 186 (explaining how discussions of workplace equality risk essentializing women when approached solely from the perspective of white women). *See generally* Trina Grillo, *Anti-Essentialism and Intersectionality:* Tools to Dismantle the Master's House, 10 BERKELEY WOMEN'S L.J. 16 (1995) (emphasizing the risks of essentializing the experience of white women); Joan Williams, *Implementing Anti-essentialism: How Gender Wars Turn into Race and Class Wars*, 15 HARV. BLACKLETTER L.J. 41 (1999) [hereinafter Williams, *Gender Wars*] (same).

This Article also focuses implicitly on the so-called "traditional" family: a married, heterosexual couple with children. While I appreciate and celebrate the wide variety of other families, this narrow focus is required in part because the sociological data that exists from which to critique telecommuting's gendered effects focuses primarily on the traditional family model. *Cf.* WILLIAMS, UNBENDING GENDER, *supra* note 5, at 8 (explaining why work/family conflict scholarship tends to use a narrow "traditional family" focus); Dowd, *supra* note 8, at 189 (noting the problems of ignoring "single-parent families, blended families and other relational configurations" when analyzing work/family conflict issues).

23. *See infra* notes 112-17 and accompanying text.

24. *See* Margrethe H. Olson, *Organizational Barriers to Professional Telework, in* HOMEWORK: HISTORICAL AND CONTEMPORARY PERSPECTIVES ON PAID LABOR AT HOME 215, 215-16 (Eileen Boris & Cynthia R. Daniels eds., 1989).

25. *See* Risman & Tomaskovic-Devey, *supra* note 4, at 71 ("Telecommuting is a variant of other forms of working from home, with a computer-technology twist.").

has been described as "the use of computer and communications technology to transport work to the worker as a substitute for physical transportation of the worker to the location of the work."[26] Thus, telecommuters are a subset of the broader homeworking population, and they are engaged in a variety of information processing tasks.[27]

Telecommuting has increased markedly since about the mid-1980s.[28] In 1985, there were fewer than 250,000 clerical workers who were telecommuting.[29] By the first half of the 1990s, the telecommuting population had grown to between 2 and 8.5 million,[30] at an annual growth rate of 15% to 20%.[31] In 1991, only about

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26. Olson, *supra* note 24, at 215-16 (emphasis omitted); *see also* JACK M. NILLES, MANAGING TELEWORK: STRATEGIES FOR MANAGING THE VIRTUAL WORKFORCE 16 (1998) (defining telecommuting as "the substitution of information technology for the commute to and from work"); Jennifer C. Dombrow, Note, *Electronic Communications and the Law: Help or Hindrance to Telecommuting?*, 50 FED. COMM. L.J. 685, 688 (1998) (defining telecommuting as "substituting telecommunications technology for the daily commute to and from the primary workplace"); Fothergill, *supra* note 8, at 334 (stating that telecommuting involves "working with information and telecommunications technology at a distance from a central office"); Pitman, *supra* note 2 (describing telecommuting as "an alternative officing arrangement that substitutes computing and telecommunications technology for the commute to a traditional office"); Loren Roseman, *Telecommuting: The New Business Paradigm*, *at* http://www.knetsystems.com/research/telecom/Telecommuting.html (1999) (on file with author) (defining telecommuting as "the partial or total substitution of telecommunications technology for the trip to and from the primary workplace"); Tomaskovic-Devey & Risman, *supra* note 20, at 367 (defining telecommuting as "employees working from home using computer technology"); Chee Sing Yap & Helen Tng, *Factors Associated with Attitudes Towards Telecommuting*, 4 INFO. & MGMT. 227, 227 (1990) ("The term 'telecommuting' refers to the substitution of computer and telecommunications technologies for physical travel to a central work location."); The Transportation Management Association Group, *Telemanagers Handbook*, *at* http://www.tmagroup.org/TelMGMNT.html (last visited Sept. 21, 2002) [hereinafter *Telemanagers Handbook*] (defining telecommuting as "the substitution of communications technology for travel to a work location"). Some telecommuters work in various types of neighborhood or satellite work centers, rather than from their homes. *See* NILLES, *supra*, at 11-14; Fothergill, *supra* note 8, at 334. This Article focuses on home-based telecommuting.

27. *See* Jamie Faricellia Dangler, *Electronics Subassemblers in Central New York: Nontraditional Homeworkers in a Nontraditional Homework Industry*, *in* HOMEWORK: HISTORICAL AND CONTEMPORARY PERSPECTIVES ON PAID LABOR AT HOME 147, 149 (Eileen Boris & Cynthia R. Daniels eds., 1989) (explaining that telecommuting represents "the movement of professional and clerical computer-based work into the home"); Olson, *supra* note 24, at 215 (noting that "[b]ecause of the role of information technology, telework is generally confined to work that would otherwise be performed in an office").

28. *See* Patricia Braus, *Homework for Grown-Ups*, 15 AM. DEMOGRAPHICS 38, 38 (1993) (stating that although trend-watchers "disagree over who home-based workers are [and] how many of them there are," they all agree "that there has been steady growth in this group").

29. Kathleen Christensen, *Home-based Clerical Work: No Simple Truth, No Single Reality*, *in* HOMEWORK: HISTORICAL AND CONTEMPORARY PERSPECTIVES ON PAID LABOR AT HOME 183, 184 (Eileen Boris & Cynthia R. Daniels eds., 1989) (citing an approximate figure of 246,000).

30. *See* Dumas, *supra* note 1, at 22 (citing data from LINK Resources, a New York City technology research and consulting firm, which reported 3.5 million men and 4.1 million women working at home at least part of the time in 1993); Kemba J. Dunham, *Telecommuters' Lament*, WALL ST. J., Oct. 31, 2000, at B1 (citing reports by Find/SVP, Cyber Dialogue, and the International Telework Association and Council/AT&T, which found less than 5 million telecommuters in 1990 and 8.5 million in 1995); *New National Survey Reports Sharp Rise in Telecommuting*, *at* http://www.att.com/press/0797/970702.bsa.html (last visited Sept. 22, 2002) (on file with author) [hereinafter *New National Survey*] (stating that there were 4 million telecommuters in

500 American organizations offered telecommuting,[32] but by 1996, that number had risen to 2 million,[33] including one-third to one-half of all Fortune 500 firms.[34] By the end of the 1990s, telecommuters numbered between 9 and 21 million,[35] making up nearly 10% of the American workforce.[36] By the year 2000, approximately 24 million Americans were telecommuting,[37] and experts predict continued future growth, both in the number of telecommuters and as a percentage of the

1990 and 8.1 million in 1995); Reymers, *supra* note 20 (stating that 2.9 million full-time employees and 7.5 million full-time, part-time, and contract workers performed all of their work from home in 1993, and that there were approximately 7.6 million part-time and full-time telecommuters in 1995); Judith Richter & Illan Meshulam, *Telework at Home: The Home and the Organization Perspective*, 12 HUM. SYS. MGMT. 193, 194 (1993) (citing a 1991 study by Link Resources Corp., which found about 4.4 million U.S. telecommuters); Roseman, *supra* note 26 (citing a figure of 2 million telecommuters in 1992).

31. *See* Braus, *supra* note 28, at 40 (citing a growth rate in telecommuting of 20% between 1992 and 1993); Reymers, *supra* note 20 (stating that telecommuting rose an average of 15% per year in the early 1990s); Richter & Meshulam, *supra* note 30, at 194 (citing an annual growth rate of 20% in the telecommuting population during the late 1980s and early 1990s).

32. Reymers, *supra* note 20.

33. June Langhoff, *The Telecommuter's World, at* http://www.coastside.net/USERS/annie/june/world.html (last visited Sept. 22, 2002) (on file with author); *see also* Elena N. Broder, *(Net)Workers' Rights: The NLRA and Employee Electronic Communications*, 105 YALE L.J. 1639, 1639 (1996) (stating that 70% of large companies had telecommuters by 1994); Krishna Kundu, *Telecommuting: Work is Virtually Something You Do, Not Somewhere You Go, at* http://www.epf.org/etrend/tr991123.htm (last visited Sept. 22, 2002) (on file with author) (stating that approximately 19.5% of organizations offered telecommuting by 1996, and 28% offered telecommuting by 1999).

34. *See* Dumas, *supra* note 1, at 22 (citing research from LINK Resources, a New York City technology research and consulting firm); *see also* Kundu, *supra* note 33 (citing a 1998 Business Work-Life Study of large companies finding that 33% allowed regular telecommuting and another 55% allowed occasional telecommuting); *Telemanagers Handbook, supra* note 26 (stating that, as early as 1996, all Fortune 100 companies had a telecommuting program or planned to develop one).

35. *See* NILLES, *supra* note 26, at 12 (citing estimates in 1997 ranging from 15 million to more than 20 million telecommuters); Robert Ingle, *Telecommuting: "Taking Your Work Home with You" Will Never Be the Same Again*, MD. B.J., Nov./Dec. 2000, at 3, 4 (noting that a survey found 11 million Americans were telecommuting at least one day per month in 1997, and that another survey found over 19.6 million American adults were telecommuting in 1999); Kundu, *supra* note 33 (citing a May 1997 Bureau of Labor Statistics report of over 21 million telecommuters, an American Internet User Survey by Cyber Dialogue reporting 10.5 million telecommuters in 1997 and 11.4 million in 1998, and a Telework America National Telework Survey by Joanne H. Pratt Associates reporting 19.6 million telecommuters in 1999); Langhoff, *supra* note 33 (stating that 9 million people telecommuted in 1996); *New National Survey, supra* note 30 (stating that more than 11.1 million people telecommuted in 1997); Andrew M. Reidy, *Home Work Problems: Employers Must Address Liabilities of Telecommuting*, A.B.A. J., Jan. 2000, at 70, 70 (stating that over 11 million Americans worked at home in 1998); *Telemanagers Handbook, supra* note 26 (stating that over 11 million people telecommuted in 1997).

36. Ingle, *supra* note 35, at 4 (citing a survey reporting that 10% of U.S. adults telecommuted in 1999); Langhoff, *supra* note 33 (stating that nearly 10% of the U.S. workforce was telecommuting as early as 1996).

37. *See* Dunham, *supra* note 30, at B1 (citing research by the International Telework Association and Council); *see also* Ferdinand Hogroian, *Telecommuting Employees May Yield Unexpected Tax Consequences*, 69 U.S.L.W. (BNA) 2643 (Apr. 24, 2001) (citing research from the International Telework Association and Council, which found over 16.5 million U.S. workers telecommuting in 2001).

total workforce.[38] The Stanford Institute for the Quantitative Study of Society estimates that at least 32.3 million people, or 25% of the workforce, will be telecommuting by 2005, and others predict that by 2030, the American telecommuting population will contain 51 million people.[39]

Unfortunately, as the use of telecommuting has increased, so has the evidence against the idyllic image of happy telecommuting moms.[40] Rather than increasing workplace equality for women by reducing the sex-based division of labor in paid and unpaid work, telecommuting appears to be exacerbating both problems.

First, telecommuting has not allowed many women to advance in the paid labor market as predicted. Numerous studies have found that employers often use telecommuting in two different ways, with different impacts on men and women.[41] In one form, employers use telecommuting as an employment benefit for high-level professionals in information and service related jobs: a category dominated by men.[42] For those workers, telecommuting does result in greater autonomy, flexibility, and job satisfaction, and there is no reduction in pay, benefits, or advancement opportunities.[43] In the other form, however, employers use telecommuting to reduce labor costs and increase control over low-level workers in clerical and data-processing jobs: a category dominated by women.[44] For those workers, telecommuting is linked to job casualization, and it typically results in lower pay, lost benefits, less autonomy, and a lack of job security and promotion opportunities.[45] Telecommuting thus tends to improve the worklives of male work-

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38. *See* NILLES, *supra* note 26, at 117 (predicting an increase in telecommuting capabilities); Calabrese, *supra* note 6, at 166, 171 (predicting continued growth in the relative size of the telecommuting workforce); C. Andrew Head, *Telecommuting: Panacea or Pandora's Box?*, at http://www.hklaw.com/OtherPublication.asp?Article=89 (last visited Sept. 22, 2002) (on file with author) (predicting future growth in telecommuting); Hogroian, *supra* note 37, at 2643 (reporting the International Telework Association and Council's prediction that U.S. telecommuters will rise to 30 million by 2004); Pitman, *supra* note 2 (predicting future growth in telecommuting).

39. Kundu, *supra* note 33 (reporting data from JALA, an international group of information technology consultants).

40. *See* PHIZACKLEA & WOLKOWITZ, *supra* note 8, at 1 ("[T]he emphasis on 'teleworking' . . . has given us a rather glamorous, post-industrial image of home-based working which simply does not tally with the evidence."); Gunter, *supra* note 6, at 440 (concluding that the ideal image of telecommuting "does not compare favourably with the current reality for most homeworkers (usually women) of low pay and social isolation").

41. *See* WAJCMAN, *supra* note 13, at 42-43; Gurstein, *supra* note 10; Tomaskovic-Devey & Risman, *supra* note 20, at 368-83.

42. *See* Gurstein, *supra* note 10; Tomaskovic-Devey & Risman, *supra* note 20, at 382-83; *see also* WAJCMAN, *supra* note 13, at 42-43 (summarizing research finding that telecommuting tends to benefit male professionals).

43. *See* Gurstein, *supra* note 10; Tomaskovic-Devey & Risman, *supra* note 20, at 382-83; *see also* DANGLER, *supra* note 6, at 12-14 (explaining that those "who choose to work at home from a position of strength on the labor market (salaried professionals) . . . may indeed have the potential to enjoy a more autonomous and flexible work experience").

44. *See* Gurstein, *supra* note 10; Tomaskovic-Devey & Risman, *supra* note 20, at 382-83; *see also* WAJCMAN, *supra* note 13, at 42-43 (summarizing research finding that telecommuting tends to make female clerical workers more vulnerable in the labor market).

45. *See* Gurstein, *supra* note 10; Tomaskovic-Devey & Risman, *supra* note 20, at 382-83; *cf.* DANGLER, *supra* note 6, at 56-57 (defining the "casualization" of the workforce as the trend toward replacing regular, full-time employees with contingent workers); Fothergill, *supra* note 8, at 345 (describing "casualisation" as "the process by which employers achieve flexibility by transforming secure jobs into temporary insecure ones").

ers who begin with labor market power and organizational status, while telecommuting tends to make the most vulnerable female workers worse off than before.

A 114-firm survey in North Carolina found that the creation of this two-tiered telecommuting population was linked to managerial beliefs about telecommuting programs, which were actually designed to reinforce the managers' preexisting beliefs.[46] Managers who viewed telecommuting as a productivity-enhancing device were most likely to use telecommuting for professionals, who were typically male researchers and computer programmers.[47] The managers *allowed* this predominately male group of workers to restructure their own schedules to work *occasionally* at home for greater flexibility, with no loss in pay or employment status.[48] In contrast, managers who viewed telecommuting as a cost-cutting device were most likely to use telecommuting for clerical workers, who were typically women.[49] The managers *required* this predominantly female group of workers to work *exclusively* from home, and they often switched the workers from full-time positions with benefits, to part-time, piece-rate positions without benefits, job security, or promotion opportunities.[50] Researchers have found similar results in other telecommuting studies, including a study of the information and communications industry in California's Silicon Valley.[51]

These results are consistent with broader research finding that employers often use telecommuting to switch women workers from a secure "employee" status to a more contingent status as a temporary or contract worker.[52] Contingent status

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46. Risman & Tomaskovic-Devey, *supra* note 4, at 73-74; Tomaskovic-Devey & Risman, *supra* note 20, at 371. The researchers received 114 completed surveys after sending out 248 total surveys. Risman & Tomaskovic-Devey, *supra* note 4, at 73; Tomaskovic-Devey & Risman, *supra* note 20, at 371. The researchers sent 100 surveys to the largest firms headquartered in North Carolina, including 36 firms in the Raleigh-Durham Research Triangle that is a headquarters for corporate research and development, and they sent the rest of the surveys to the state headquarters of commercial banks and insurance companies, and to all computer and word-processing firms in Raleigh and Durham. Risman & Tomaskovic-Devey, *supra* note 4, at 73; Tomaskovic-Devey & Risman, *supra* note 20, at 371.

47. Risman & Tomaskovic-Devey, *supra* note 4, at 73-74; Tomaskovic-Devey & Risman, *supra* note 20, at 377, 380-82.

48. Risman & Tomaskovic-Devey, *supra* note 4, at 74; Tomaskovic-Devey & Risman, *supra* note 20, at 377, 380, 382-83; *see also* Reymers, *supra* note 20 (analyzing the Risman and Tomaskovic-Devey research).

49. Risman & Tomaskovic-Devey, *supra* note 4, at 73-74; Tomaskovic-Devey & Risman, *supra* note 20, at 371, 377, 380-82.

50. *See* Risman & Tomaskovic-Devey, *supra* note 4, at 74; Tomaskovic-Devey & Risman, *supra* note 20, at 368; *see also* Reymers, *supra* note 20 (analyzing the Risman and Tomaskovic-Devey research).

51. Gurstein, *supra* note 10 (describing a case study in California's Silicon Valley finding that telecommuting and other flexible work arrangements had benefited the predominantly male class of high-skilled professionals in the information and communications technology industry, while causing the industry's predominantly female class of lower-skilled, nonprofessional workers to suffer job losses, reduced wages, and poorer working conditions).

52. DANGLER, *supra* note 6, at 56-57; Gurstein, *supra* note 10; *see also* PHIZACKLEA & WOLKOWITZ, *supra* note 8, at 37-38, 123 (describing a survey of 7000 women who responded to a questionnaire in *Family Circle* magazine finding that many women lose their status as employees when they begin to telecommute); Calabrese, *supra* note 6, at 169 (noting that women homeworkers typically receive less pay, job security, and benefits than their similarly-situated office counterparts); Christensen, *supra* note 29, at 188-89 (explaining how firms use "place

generally involves less pay and reduced or eliminated benefits, training, and advancement opportunities.[53] Contingent status also excludes workers from the protection of many employment laws,[54] while the decentralization of telecommuters simultaneously makes collective activity more difficult.[55] Perhaps not surprisingly, women are highly overrepresented in job categories that firms target for this strategy.[56]

The employment decisionmakers in the North Carolina study, for example, structured telecommuting for their female clerical workforce specifically to take advantage of the labor market limitations associated with the "female family role."[57] The managers felt justified in structuring telecommuting to magnify gender inequalities because of their belief "that mothers with young children do and should prefer to be at home."[58] While male professionals may bargain for beneficial telecommuting arrangements from a position of job market strength, women clerical workers often accept exploitative telecommuting arrangements in an attempt to solve their conflicting work/family demands.[59] Although many women voice

discrimination" when implementing telecommuting, by switching the status of women workers from full-time salaried employees with benefits to independent contractors without benefits); Reymers, *supra* note 20 (noting evidence showing that many women telecommuters lose benefits and staff support); Tomaskovic-Devey & Risman, *supra* note 20, at 368 (stating that telecommuting for women clerical workers "tends to be subcontract or piece rate work done totally at home and with the loss of benefits packages").

53. Eileen Silverstein & Peter Goselin, *Intentionally Impermanent Employment and the Paradox of Productivity*, 26 STETSON L. REV. 1, 2 (1996).

54. *Id.* at 4; *see also* Tomaskovic-Devey & Risman, *supra* note 20, at 374 (explaining that the types of telecommuting programs offered to women clerical workers often result in reduced "organizational citizenship rights").

55. *See* Reymers, *supra* note 20 (suggesting that many women telecommuters lose paid benefits in part because the decentralization of telecommuters makes it more difficult to organize collectively); *see also* DANGLER, *supra* note 6, at 92 (stating that unions view homework "as a union-busting tactic" and managers view homework "as a way to decentralize the labor force before union inroads are made").

56. *See* PHIZACKLEA & WOLKOWITZ, *supra* note 8, at 2-4 (noting generally that women represent the largest increase in the growing contingent workforce); Bookman, *supra* note 6, at 804 (explaining that "[a]lmost 60% of women are clustered in low-wage, traditionally female jobs in clerical, sales, and service occupations," which are the jobs most frequently targeted for contingent status); Calabrese, *supra* note 6, at 169, 183 (explaining that researchers predict female telecommuting clerical workers "are likely to constitute a growing portion of the 'disposable workforce,'" and that women are in "particular jeopardy" of being exploited by telecommuting); Christensen, *supra* note 29, at 184, 187-89 (stating that the most vulnerable group of telecommuters are the mostly female clerical workforce who are questionably hired as independent contractors); Pitman, *supra* note 2 (concluding that "those most disenfranchised and exploited by telecommuting arrangements will be women"); Silverstein & Goselin, *supra* note 53, at 11 (explaining that "the sectors of the economy in which contingent employment has been used most commonly are also sectors in which women are concentrated").

57. Tomaskovic-Devey & Risman, *supra* note 20, at 382.

58. Risman & Tomaskovic-Devey, *supra* note 4, at 74; *see also* Tomaskovic-Devey & Risman, *supra* note 20, at 382-83 (explaining that the managers essentially were exploiting mothers' domestic responsibilities to lower overhead and other labor costs).

59. *See* Eileen Boris & Cynthia R. Daniels, *Introduction, in* HOMEWORK: HISTORICAL AND CONTEMPORARY PERSPECTIVES ON PAID LABOR AT HOME 1, 5 (Eileen Boris & Cynthia R. Daniels eds., 1989); *see also* Calabrese, *supra* note 6, at 183 (explaining that while male workers who possess "highly leverageable skills" can benefit from the flexibility of telecommuting, female workers in lower occupational strata are at risk for exploitative telecommuting arrangements, in part because "they are more likely than men to be forced into the 'choice' of homework due to child-rearing demands").

support for such arrangements, sociologists believe that those responses "can only be understood with an eye toward the broader context of economic, social, and political powerlessness from which women make the 'choice'" to telecommute.[60] According to sociologists, women often "choose" telecommuting because it is the only practical option, given the lack of childcare alternatives and women's subordinate labor market position.[61]

This dilemma is highlighted by employers that substitute exploitative telecommuting programs for the provision of maternity and other leave policies that many women with children need to be able to compete. One northeastern insurance company, for example, offered its women workers the option of telecommuting in lieu of continuing to provide maternity leaves.[62] This "offer" required the women to switch from employees to contractors, which meant that they lost their full-time, salaried status, along with their employee benefits, including healthcare, pensions, sick leave, and paid vacation time.[63] These women telecommuters quickly became second-class corporate citizens, as the company excluded them from further training and career development opportunities.[64]

This example illustrates one of the many ways that employers are implementing telecommuting to reinforce and magnify the existing sex-based occupational segregation and workplace hierarchy.[65] Based on this research, sociologists have concluded that "those most disenfranchised and exploited by telecommuting arrangements will be women."[66] While telecommuting certainly has worked effec-

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60. DANGLER, *supra* note 6, at 116-17, 120.

61. *See id.* at 4, 116-17, 120 (arguing that women often choose telecommuting "in the face of a set of constraining factors which limit their freedom on the job market," and that telecommuting is the result of women's "[l]imited job opportunities (due to high unemployment and sex segregation in the labor market) combined with the need to manage the double burden of paid work and family responsibilities"); *see also* Boris & Daniels, *supra* note 59, at 6 (arguing that the fact that telecommuting "presents itself as a more flexible and attractive option for working mothers is itself a commentary on the structure of our political economy, which provides working mothers with so few options"); Calabrese, *supra* note 6, at 183 (concluding that women in lower occupational strata "are more likely than men to be forced into the 'choice' of homework due to child-rearing demands," while men who possess "highly leverageable skills" can negotiate beneficial telecommuting arrangements); Christensen, *supra* note 29, at 184, 193-94 (describing the results of a national survey of 14,000 female clerical workers finding that while women liked telecommuting "better than not working," most found it stressful and isolating, and their pursuit of telecommuting was largely a response to "a society that offers working mothers few options for flexibility in combining work and family"); Gurstein, *supra* note 10 (explaining that telecommuting is a "survival strategy" for many women, not a "panacea for unresolved tensions in the work and domestic spheres").

62. *See* Christensen, *supra* note 29, at 188-89; *see also* Pitman, *supra* note 2 (arguing that female telecommuters may be "exploited as a way for companies to dodge day-care and maternity issues").

63. Christensen, *supra* note 29, at 188-89 (concluding that the women telecommuters ended up "mak[ing] less than they did when they worked in the office," while "doing the same work").

64. *See id.* The women claims processors at another California-based insurance company similarly believed the company's promises that telecommuting would save them time and money and allow them to better coordinate their work and family lives. *Id.* at 190. Those women soon found themselves without benefits and working up to fifteen hours a day to meet the company's repeatedly increased processing quotas. *Id.*

65. *See* Risman & Tomaskovic-Devey, *supra* note 4, at 74 (concluding from empirical studies that "[w]hen telecommuting is adopted, . . . the organization of telecommuting programs tends to exacerbate current inequalities in the workplace").

66. Pitman, *supra* note 2; *see also* Calabrese, *supra* note 6, at 169 (arguing that women are in "particular jeopardy" of exploitative telecommuting arrangements).

tively for some women who begin with significant labor market power and/or economic privilege,[67] telecommuting has not decreased the sex stratification of the paid labor market for women as a whole.

The second misconception in the "gender-equalizing" vision of telecommuting is that it will decrease the sex-based division of labor in the home, by facilitating an equitable redistribution of childcare and other domestic tasks. In reality, the research suggests that telecommuting is making the disparity even greater.[68] Telecommuting does not change the fact that traditional gender roles create a very different meaning of "the home" for women and men.[69] As one sociologist has explained, "[t]o be at home will imply certain responsibilities of child care and housework that men will not consider if this is not part of their responsibilities at home."[70] Men do not "suddenly develop a taste for housework and childcare" just because they start performing their paid work from home.[71]

These differences have influenced the way that women and men experience telecommuting arrangements. Women typically cite the desire to coordinate work and family as a primary reason for entering a telecommuting relationship,[72] and women telecommuters view themselves as having dual responsibility for their paid and unpaid work.[73] Women who telecommute tend to intersperse their paid work with childcare, and they more often report job dissatisfaction and increased work-

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67. *See, e.g., Telemanagers Handbook, supra* note 26 (citing a Bureau of Labor Statistics National Longitudinal Study of professional telecommuters with labor market power, including women who could put their children in day care while they telecommuted, which found that both men and women telecommuters earned higher salaries and had similar or better benefits and promotion rates than their on-site counterparts).

68. *See* Gurstein, *supra* note 10 (concluding that telecommuting "does not change gender roles and that the home remains a sex-segregated environment"); *see also* DANGLER, *supra* note 6, at 2 (concluding that telecommuting has "helped to create and sustain a gender division of labor that not only guarantees the permanence of women's 'double burden,' [i.e., the burden of waged and unwaged work] but also prevents the development of a healthier integration of family and work life for both sexes"); *id.* at 17-18, 44.

69. *See* Pitman, *supra* note 2; *see also* PHIZACKLEA & WOLKOWITZ, *supra* note 8, at 16 (explaining that "the 'home' is not a gender-neutral category but is filled with gendered meanings"); Aitken & Carroll, *supra* note 11 (arguing that telecommuting will have a different meaning for women than for men because "modern conceptions of womanhood have been constructed around the home").

70. Pitman, *supra* note 2.

71. Gunter, *supra* note 6, at 445; *see also* Fothergill, *supra* note 8, at 344 (arguing that "the pattern of gender roles is not automatically changed just because a man works at home" (internal quotation omitted)).

72. *See* DANGLER, *supra* note 6, at 121-22 (explaining that research shows that women are more likely than men to telecommute for family reasons, even in professional jobs); Gurstein, *supra* note 10 (explaining that the primary reason that women telecommute is to spend more time with their children); Carol Cruzan Morton, *Telecommuting Differences Found Between the Sexes, at* http://www-pubcomm.ucdavis.edu/newsreleases/02.97/news_telecommute.html (last visited Sept. 24, 2002) (on file with author) (describing a study of almost 600 workers in San Diego that found that 92% of women and 83% of men wanted to telecommute, but that only the predominantly female clerical workforce was motivated by family reasons); Pitman, *supra* note 2 (explaining that numerous surveys have documented that most women telecommuters cite family reasons as their impetus for telecommuting); Reymers, *supra* note 20 (noting that one study found that over twice as many women than men said that having more family time was a consideration in their decision to telecommute).

73. *See* Gurstein, *supra* note 10.

related stress.[74] Many women actually increase the time they spend on domestic responsibilities after they start to telecommute.[75]

In contrast, men typically cite economic and business reasons as their primary motives for entering a telecommuting relationship,[76] and men who telecommute continue to view themselves as engaged solely in paid work.[77] Male telecommuters tend to separate their paid work from their domestic lives,[78] and they tend not to increase their proportion of childcare or household tasks.[79] While women telecommuters often perform their paid work in central areas of the home, such as the kitchen, men more often have the resources to set up defined workspaces that are separated physically from the rest of the home.[80] While women often become more family-oriented after they begin to telecommute, men often become even more work-oriented, as they substitute their prior commute time for additional paid work.[81] Overall, men who telecommute spend no more time on childcare and

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74. *See* PHIZACKLEA & WOLKOWITZ, *supra* note 8, at 38 (reporting the results of a 7000-person survey done by *Family Circle* magazine that found that "[m]ost homeworking mothers found combining work and child-care stressful and isolating"); Calabrese, *supra* note 6, at 175 (explaining that research indicates that "women who work from home experience increased role conflict"); *see also* Pitman, *supra* note 2 (reporting one study in which "women cited the ability to combine the care of children or other dependants with work both as the greatest advantage and the greatest disadvantage" of telecommuting (internal quotation omitted)).

75. Pitman, *supra* note 2 (concluding that many women telecommuters find "that their double-day remains unchanged and even exacerbated" (internal quotation omitted)); *cf.* Fothergill, *supra* note 8, at 344 (reporting that approximately half of the women in a survey of telecommuters in Great Britain had increased their domestic work).

76. *See* DANGLER, *supra* note 6, at 121 (explaining that men typically decide to telecommute because of "[t]he desire to avoid long commutes and traffic congestion in urban areas and the search for greater autonomy," not because of a desire to balance market work with childcare and housework); PHIZACKLEA & WOLKOWITZ, *supra* note 8, at 16, 111 (describing a study of 807 telecommuters in which the researchers concluded that men "rarely" telecommute "to resolve a child-care problem," but typically do so to increase their productivity and worklife autonomy); Aitken & Carroll, *supra* note 11 (summarizing studies finding that "[m]en, unlike women, rarely choose telecommuting as a way to perform childcare responsibilities, but do so in order to increase productivity and escape the environment of the corporate workplace"); Gurstein, *supra* note 10 (explaining that men typically telecommute for economic and practical business reasons, rather than to spend time with children); Morton, *supra* note 72 (describing a study of almost 600 workers in San Diego that found that the primary motivation for the 83% of male workers who wanted to telecommute was the desire to get more work done); Pitman, *supra* note 2 (explaining that numerous surveys have found that men typically telecommute for non-family-related reasons); Reymers, *supra* note 20 (reporting on one study finding that over twice as many women than men said that they considered the ability to have more family time when deciding to telecommute).

77. Gurstein, *supra* note 10.

78. *See id.* (explaining that male telecommuters "see themselves as primarily working at home," while female telecommuters "are torn between their work and family responsibilities"); *see also* Pitman, *supra* note 2 (finding that women telecommuters "are the only ones who deal with the difficulty of integrating work and child care").

79. Aitken & Carroll, *supra* note 11.

80. Gurstein, *supra* note 10; *see* Aitken & Carroll, *supra* note 11 (explaining research findings that men who telecommute "attempt to isolate themselves spatially from childcare roles while working at home").

81. *See* Aitken & Carroll, *supra* note 11; *cf.* Crain, *supra* note 10, at 1929 (explaining that the use of part-time and reduced-work arrangements have provided similar results, as "wives use less-than-full-time market employment to accommodate their household and caregiving responsibilities, while husbands' less-than-full-time market-employment does not significantly alter

housework than men who work at a central office.[82] In addition, men who work in a central office and who have wives who begin to telecommute end up reducing their already low level of domestic responsibilities.[83]

Overall, telecommuting simply has not changed the fact that women as a group perform the majority of childcare and domestic tasks.[84] Telecommuting has failed to meaningfully challenge traditional domestic roles and definitions, as telecommuting arrangements are more often dictated by preexisting gender norms.[85] Employers likely are contributing to this inability to restructure the division of labor in the home, as employers use telecommuting to further disadvantage women in the paid labor market.[86]

All of this empirical research effectively undermines the idyllic predictions that telecommuting will serve as an independent variable to restructure the workplace and the home to produce greater equality for women. Instead, telecommuting appears to reinforce and magnify the existing gender division of both paid and unpaid work.[87] Rather than changing the social organization of the workplace,

the nature of the gender division of labor in the household"); Martha M. Ertman, *Love and Work: A Response to Vicki Schultz's Life's Work*, 102 COLUM. L. REV. 848, 858 (2002) (opining that "[i]f women engage in more wage labor and men in less, it seems likely that . . . many men would use the freed up time to play more rather than to vacuum or write Christmas cards").

82. DANGLER, *supra* note 6, at 121; *see* Gurstein, *supra* note 10. While some contrary evidence suggests that some men do increase the amount of time that they spend on childcare and domestic tasks after they begin telecommuting, any such increase appears to represent an increase in the overall amount of time spent on domestic responsibilities, rather than a shift of some of those responsibilities from women to men. *See* Fothergill, *supra* note 8, at 344, 346.

83. *See* Aitken & Carroll, *supra* note 11.

84. *See* Fothergill, *supra* note 8, at 344, 346; Pitman, *supra* note 2 (concluding that telecommuting has not allowed most women to change their status as primary caregivers).

85. *See* PHIZACKLEA & WOLKOWITZ, *supra* note 8, at 65 (concluding that telecommuting arrangements "reflect gendered ideologies which assign women the main responsibility for bringing up children"); Aitken & Carroll, *supra* note 11 (concluding that research has discovered a "failure of telecommuting to change gender roles"); Calabrese, *supra* note 6, at 167, 172 (arguing that telecommuting "does not challenge the place of men in the home or in the economy," nor does it change "the place of the home in the economy or of women in the home"); Gurstein, *supra* note 10 (explaining that telecommuting has not changed the division of domestic labor because telecommuting does not change existing attitudes about gender roles); Pitman, *supra* note 2 (concluding that telecommuting has entrenched the existing gender work roles in the home).

86. *See* Juliet Webster, *Gender and Technology at Work: 15 Years On, in* WOMEN, WORK AND COMPUTERIZATION: BREAKING OLD BOUNDARIES—BUILDING NEW FORMS 311, 315 (Alison Adam et al. eds., 1994) (arguing that telecommuting "seems merely to capture and relocate workplace divisions of labour into the home"); *see also* CYNTHIA COCKBURN, MACHINERY OF DOMINANCE: WOMEN, MEN, AND TECHNICAL KNOW-HOW 230-31 (1985) (arguing that workplace structures perpetuate the gendered division of labor in the paid labor market, which eliminates women as competitors and ensures their continued provision of unpaid labor in the home); Vicki Schultz, *Life's Work*, 100 COLUM. L. REV. 1881, 1896, 1899-907 (2000) (hypothesizing that "[w]omen may take on more housework and childcare *because* we are segregated into lower-paying, lower-status jobs—a position which deprives us of the ability to obtain more egalitarian arrangements for household labor").

87. *See* WAJCMAN, *supra* note 13, at 42 (describing telecommuting as "a stark example of the reproduction of women's traditional position in the new electronic age," and concluding that "new forms of computer-based homework would appear to reinforce sexual divisions in relation to paid work and unpaid domestic work"); *see also* PHIZACKLEA & WOLKOWITZ, *supra* note 8, at 68, 124 (relying on a variety of research in different settings to conclude that telecommuting

telecommuting technology is working as a dependent variable. Employers are controlling that variable, as the quality and conditions of telecommuting arrangements are adapted to and governed by preexisting market power, the relative resources of those in different jobs, workplace interaction patterns, organizational status assumptions, and managerial goals.[88]

All of this empirical research also suggests that there is a very real risk that telecommuting will become a modern-day version of the historic, exploitative forms of industrial homework that were prevalent in the United States in the early and mid-twentieth century.[89] During that time, industrial manufacturers relied heavily on female homeworkers, particularly in the garment and textile industries.[90] Women industrial homeworkers frequently worked extremely long hours for very little pay, often under onerous quota and piece-rate systems, without union protection or meaningful regulatory controls.[91] The parallels between modern-day telecommuting in the information economy and historic homeworking during the industrial revolution are disturbingly easy to draw.[92] To assume that telecommu-

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"replicated and reproduced" existing gender inequalities, by "reflect[ing] all the inequalities of the wider society"); Boris & Daniels, *supra* note 59, at 1-5 (concluding that "homework both reflects and reinforces the traditional gender division of labor in *and* out of the home").

88. *See* Risman & Tomaskovic-Devey, *supra* note 4, at 72, 74; Tomaskovic-Devey & Risman, *supra* note 20, at 370, 382-83; *see also* PHIZACKLEA & WOLKOWITZ, *supra* note 8, at 18 (concluding that telecommuting must be analyzed within the context of "an already sexually segregated labour market"); Gurstein, *supra* note 10 (arguing "against a technological determinist stance," and explaining that telecommuting magnifies preexisting power differentials between men and women in the labor market); Reymers, *supra* note 20 (analyzing the Risman & Tomaskovic-Devey research and concluding that "the elements of status and power come to affect the stratification of occupations within the telecommuting trend").

89. *See* WAJCMAN, *supra* note 13, at 41-42 (arguing that "[e]lectronic homework for clerical women . . . is an extension of traditional homework with all its disadvantages"); Boris & Daniels, *supra* note 59, at 4 (arguing that "clerical homework has taken on some of the same characteristics as industrial homework: women work for piece rates and the quality and quantity of work performed is controlled by the invisible hand of the contractor").

90. *See* Boris & Daniels, *supra* note 59, at 2-4.

91. *See id.*; Calabrese, *supra* note 6, at 169 (explaining that women industrial homeworkers in the pre-New Deal era faced "long hours, poor working conditions, low pay, piece work, and having wages withheld without recourse"); *see also* DANGLER, *supra* note 6, at 7 (describing the historic use of homeworking as "a distinctive vehicle for the exploitation of women"); Cynthia R. Daniels, *Between Home and Factory: Homeworkers and the State, in* HOMEWORK: HISTORICAL AND CONTEMPORARY PERSPECTIVES ON PAID LABOR AT HOME 13, 14-19 (Eileen Boris & Cynthia R. Daniels eds., 1989) (describing the exploitation of women homeworkers in the garment industries in New York in the early twentieth century).

92. *See* Dangler, *supra* note 27, at 147-48 (asking whether telecommuting for women in the new information economy will be any different from the past exploitative use of women in industrial homeworking arrangements); Virginia duRivage & David Jacobs, *Home-Based Work: Labor's Choices, in* HOMEWORK: HISTORICAL AND CONTEMPORARY PERSPECTIVES ON PAID LABOR AT HOME 258, 258-59 (Eileen Boris & Cynthia R. Daniels eds., 1989) (explaining that the majority of both industrial homeworkers and clerical telecommuters are women, and arguing that "[d]espite the facile assumption that clerical work is relatively dignified and conforms to high standards as a form of employment, the potential for exploitation is the same"); Gurstein, *supra* note 10:

> While clearly teleworkers have significant advantages over industrial homeworkers in terms of flexibility and control over their time and resources, there is a very real danger that conditions similar to those found for industrial homeworkers could be perpetuated on this group as well, especially as they become vulnerable to a change in status to independent contractors when they work at home.

nications technology will automatically benefit women, warns one sociologist, "is to be guilty of ignoring the lessons of history."[93] Rather than providing a step up for many women, telecommuting may return them to some of the very same conditions that they worked so hard to eliminate.

This projected path for telecommuting conjures up the perpetual stairway illusion made famous by Dutch artist M.C. Escher.[94] The Escher stairway appears to possess a set of ordinary ascending steps. Although each of the steps appears to lead upward, there is no real upward progress, as the ascending stairway somehow circles back to arrive at the very first step where the stairway began.[95]

This projected path for telecommuting is probably unsurprising to many social scientists who have studied the history of workplace technology. Social scientists have documented many examples of how potentially liberating new technologies end up being adapted to, and governed by, existing sex-based hierarchies in the workplace.[96] The majority of that research has focused on the introduction of computers into traditional workplaces in the 1970s. As with telecommuting technology, there was initial optimism that computers could help achieve greater equality for women engaged in waged work. Many predicted that computers would liberate women who held the majority of low-paying clerical jobs by reducing the time needed for routine tasks and allowing women workers to learn new skills and take

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93. Gunter, *supra* note 6, at 451.

94. *See Penrose Stairway, at* http://hades.ph.tn.tudelft.nl/Internal/PHServices/Documentation/MathWorld/math/math/p/p185.htm (last visited Aug. 29, 2002) (on file with author) (describing and illustrating the stairway illusion, also known as the "schroeder stairs," which was one of M.C. Escher's most well-known illustrations).

95. *See id.; see also* Calabrese, *supra* note 6, at 184 (urging a more critical examination of the assumptions made by well-intentioned telecommuting proponents, and arguing that "[a]mong those undesirable roads which are paved with good intentions is that which leads to unintended abuse and exploitation"). This metaphor has some similarities to the "force field" metaphor that Joan Williams has used to describe the ways in which gendered social and workplace norms constantly pull men and women back into traditional gender roles. *See* Joan Williams, *From Difference to Dominance to Domesticity: Care as Work, Gender as Tradition*, 76 CHI.-KENT L. REV. 1441, 1471 (2001); Joan Williams, *Exploring the Economic Meanings of Gender*, 49 AM. U. L. REV. 987, 1015 (2000); Williams, *Gender Wars, supra* note 22, at 78.

96. This type of research flourished in the 1980s when social scientists started to view technology as "socially shaped," rather than as deterministically "good" or "bad." Eileen Green et al., *Introduction, in* GENDERED BY DESIGN?: INFORMATION TECHNOLOGY AND OFFICE SYSTEMS 1, 2 (Eileen Green et al. eds., 1993); *see also* Green, *supra* note 6, at 374 (arguing that "technologies are themselves understood as 'cultural products,' 'objects' or 'processes,' which take on meaning only when experienced subjectively and where those meanings will vary according to the context in which particular technologies are encountered in everyday life" (internal quotation omitted)); Janine Morgall, *Typing Our Way to Freedom: Is It True that New Office Technology Can Liberate Women?*, FEMINIST REV. No. 9, Oct. 1981 at 87, 88 ("Technology is neither neutral nor value-free. Technological innovations reflect the political, social and economic conditions of the societies which create and put them to use."). This concept facilitated collaboration between computer scientists, sociologists, and anthropologists, who critically examined the line between the "technological" and the "social." *See* Green et al., *supra*, at 2; Flis Henwood, *Establishing Gender Perspectives on Information Technology: Problems, Issues and Opportunities, in* GENDERED BY DESIGN?: INFORMATION TECHNOLOGY AND OFFICE SYSTEMS 31, 31 (Eileen Green et al. eds., 1993) (noting that there is now a substantial body of literature examining the relationship between gender and technology).

on greater responsibilities.[97] Instead, researchers found that, "[f]ar from eliminating the differences between 'men's' and 'women's' work," computers were used to "widen the gap."[98]

As with the current research on telecommuting, research on the introduction of computers in the 1970s found that employers used the new technology in two different ways for workers at different ends of the workplace hierarchy. Male workers with preexisting labor market power typically had "more autonomy and discretion in their work and thus more power to influence" exactly how their work was computerized.[99] In contrast, women workers at the lower end of occupational and organizational hierarchies typically were unable to control the ways in which computers impacted their working lives.[100] Rather than using the new technology to reduce sex-based hierarchies and divisions of labor, managers used word processors to increase control over women clerical workers by further centralizing the work process, adopting new monitoring techniques, and both quantifying work output and increasing output demands.[101]

While the largely male population of white-collar workers who began with organizational power was able to use computers to enhance the quality of work, the largely female population of clerical workers who lacked organizational influence had the new technology imposed in a way that further reduced its workers'

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97. *See* WAJCMAN, *supra* note 13, at 27-29; Morgall, *supra* note 96, at 88.

98. Morgall, *supra* note 96, at 88, 94; *see also* Webster, *supra* note 86, at 313 (describing a large-scale study of the workplace introduction of word processing in the 1970s, in which researchers concluded that the organization of work and the sex-based division of labor "remained intact"). *See generally* Hazel Downing, *Word Processors and the Oppression of Women, in* THE MICROELECTRONICS REVOLUTION 275 (Tom Forester ed., 1980) (describing how the introduction of computers into the workplace in Great Britain had disproportionately negative effects on women in the clerical workforce).

99. Karasti, *supra* note 6, at 45.

100. *See id.*

101. *See* Morgall, *supra* note 96, at 94-95; *see also* WAJCMAN, *supra* note 13, at 27, 30 (explaining how the introduction of computers could magnify the sexual hierarchy in the workplace, if managers used computers to increase work monitoring, to fragment work into routine and standardized tasks, and to increase control over the production process); Webster, *supra* note 86, at 313 (describing a large-scale study of the workplace introduction of word processing in the 1970s, which found that employers typically used computer automation of clerical work to increase control over and subordination of low-status women workers); *cf.* Jane Barker & Hazel Downing, *Word Processing and the Transformation of Patriarchal Relations of Control in the Office*, CAPITAL & CLASS No. 10, Spring 1980, at 64, 96 (documenting the ways in which the introduction of word processing technology into the female clerical workforce in Great Britain was not "liberationary," but was used "as a new form of control . . . to cheapen labour and intensify productivity"); Gunilla Bradley, *Women, Work and Computers*, 13 WOMEN & HEALTH 117, 127 (1988) (finding in a University of Stockholm research project that women felt that the introduction of computers at work "decreased the variation in their jobs, the degree of interesting content, the possibility of applying new ideas, knowledge and skills, the independence of their work, as well as the prestige of their jobs," and "brought about an increase in stress at work"); Sonia Liff, *Information Technology and Occupational Restructuring in the Office, in* GENDERED BY DESIGN?: INFORMATION TECHNOLOGY AND OFFICE SYSTEMS 95, 95, 97-98, 104 (Eileen Green et al. eds., 1993) (describing a study of the introduction of computers into a sex-segregated office in Great Britain that found many ways in which "gender relations are reproduced," including using computers to increase women's workloads more than men's and thereby keeping women in segregated, low-grade jobs).

low level of control.[102] Computers also failed to facilitate a redistribution of childrearing and other domestic responsibilities just by freeing up more of men's time through gains in workplace productivity.[103] Thus, despite the equalizing potential for computer technology, social scientists ultimately concluded that introducing computers into the workplace would "at best retain the status quo," and at worst "further limit women's career possibilities."[104] Computers did not change the sex-based division of labor in the workplace because the technology was incorporated into the existing values and expectations of an already sex-segregated workplace.[105] In other words, employers were able to warp the upward stairway back around to its initial starting point.

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102. *See* Barbara A. Gutek, *Clerical Work and Information Technology: Implications of Managerial Assumptions, in* WOMEN AND TECHNOLOGY 205, 221 (Urs E. Gattiker ed., 1994) (explaining that the "widely diverging patterns of implementation" of computers in the workplace were "facilitated by the fact that highly paid white collar jobs are mostly held by men whereas lower paid white collar jobs are held almost exclusively by women"); *see also* Karasti, *supra* note 6, at 45 (concluding that the computerization of centralized workplaces had a "different impact on women than on men").

Sociologists believe this phenomenon is exacerbated by the fact that technology tends to be designed by and for men. *See* Turid Birkenes & Annita Fjuk, *A Feminist Approach to Design of Computer Systems Supporting Co-operative Work: The Troublesome Issue of Co-operation Seen From a Women's Perspective, in* WOMEN, WORK AND COMPUTERIZATION: BREAKING OLD BOUND-ARIES—BUILDING NEW FORMS 75, 77 (Alison Adam et al. eds., 1994) (explaining how computer-based communications are male-oriented because "men have . . . been the leading architects of the systems' interaction modes" and "*the user* is almost without exception perceived as a male"); Webster, *supra* note 86, at 318-19 (arguing that technology has reproduced the sex-based division of labor in the workplace because technology is "designed by men with men in mind"); *see also* Karasti, *supra* note 6, at 49 (concluding that "gender divisions are reflected and reproduced in systems design methodologies and practices" when computer technology is introduced into the workplace).

103. *See* Morgall, *supra* note 96, at 97.

104. *Id.* at 99; *see also* Savvas Katsikides & Margit Pohl, *Dichotomous Thinking, Women, and Technology, in* WOMEN, WORK AND COMPUTERIZATION: BREAKING OLD BOUNDARIES—BUILDING NEW FORMS 35, 35 (Alison Adam et al. eds., 1994) (studying the introduction of computers in the workplace and concluding that "the traditional division of labour between women and men has not changed fundamentally, and working conditions for women get worse because of the introduction of information technology").

105. *See* Morgall, *supra* note 96, at 94-95; *see also* WAJCMAN, *supra* note 13, at 28 ("Technical change has not substantially undermined sexual divisions in the labour market and occupational segregation between women and men. . . . If technology is designed with job stereotypes in mind then it is hardly surprising that sex segregation is being further incorporated into the workplace."); Gutek, *supra* note 102, at 221 (arguing that computers did not have a gender-equalizing effect because information technology "is introduced into women's work under the assumptions that women have different characteristics from men, ones that are less suited to advancement in the work environment, and that their main interests center around family life, not work"); Ursula Holtgrewe, *Everyday Experts? Professionals' Women Assistants and Information Technology, in* WOMEN, WORK AND COMPUTERIZATION: BREAKING OLD BOUNDARIES—BUILDING NEW FORMS 121, 122 (Alison Adam et al. eds., 1994) (finding that when computers are introduced into the workplace, "new technology and its demands are being built into a stable gendered division of labour"); Webster, *supra* note 86, at 317 (concluding that "occupational sex-typing provides the basis for the design of technologies applied to particular jobs"); *cf.* Barker & Downing, *supra* note 101, at 64 (describing how computers reinforced gender inequality in workplaces in Great Britain); Elena Softley, *Word Processing: New Opportunities for Women Office Workers?, in* SMOTHERED BY INVENTION: TECHNOLOGY IN WOMEN'S LIVES 222, 222 (Wendy Faulkner & Erik Arnold eds., 1985) (documenting how the entry of word processors into the largely female clerical workforce in Great Britain reinforced existing sex segregation, rather than freeing women from routine work and allowing them to spend time on more responsible, semi-managerial tasks).

Social scientists have found similar results with a variety of other new technologies.[106] Accordingly, the dominant theme of much of the sociological literature in this area has been that new technologies "are no more gender-neutral than they are neutral in any other sense."[107] The new research on telecommuting provides another data point to support that thesis: telecommuting technologies are not providing a step up for most women workers as many legal scholars and others have predicted. Instead, telecommuting is further marginalizing many women workers as these arrangements are becoming a second generation "mommy track."[108] While telecommuting advocates might view telecommuting as the perfect answer to the work/family conflicts that currently fall disproportionately on women, that simply is not the case, at least not in the way that many employers currently are designing telecommuting arrangements.[109]

It is *possible*, however, for the telecommuting stairway to really lead upward for women workers. Telecommuting advocates are correct that new technology *could* advance women's workplace equality. But the empirical research reveals that the technology will not achieve that result on its own. As one social scientist has explained, "[t]echnology can be used to eliminate inequalities in society or to

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106. *See, e.g.*, Edward J. Hackett et al., *Women's and Men's Expectations About the Effects of New Technology at Work*, 16 GROUP & ORG. STUD. 60, 78-79 (1991) (citing research finding that "technological change bifurcated women's work in the insurance industry, ultimately increasing gender inequalities"); Leslie Regan Shade, *Gender Issues in Computer Networking, in* WOMEN, WORK AND COMPUTERIZATION: BREAKING OLD BOUNDARIES—BUILDING NEW FORMS 91, 96 (Alison Adam et al. eds., 1994) (studying the way that "pre-existing patterns of hierarchy and male dominance in academia . . . generally, and in society as a whole," were reproduced with the introduction of electronic list serves); Lucy Suchman, *Supporting Articulation Work: Aspects of a Feminist Practice of Technology Production, in* WOMEN, WORK AND COMPUTERIZATION: BREAKING OLD BOUNDARIES—BUILDING NEW FORMS 7, 13, 15 (Alison Adam et al. eds., 1994) (describing the negative effects on women paralegals and litigation support staff when new document coding technology was introduced into a law firm's litigation department and the predominantly male partnership then viewed the work as "'mindless' labor," rather than "'knowledge work,'" and advocated out-sourcing of the women workers' tasks); *see also* COCKBURN, *supra* note 86, at 167-97, 229-35 (arguing that men retain dominance in the workplace by appropriating new technology and using informal workplace culture to enforce sexual segregation in technological fields); Hackett et al., *supra*, at 60, 64 (citing research showing that "technological change has been used to exacerbate or create differences between men and women"); Webster, *supra* note 86, at 315 (reviewing research and concluding that "the introduction of new technologies does not substantially undermine sexual divisions in the labour market, the gendering of occupations allocated to men and women, or the social construction of skill").

107. Webster, *supra* note 86, at 321; *see also* Birkenes & Fjuk, *supra* note 102, at 77 ("Technology is never neutral. The consequences are . . . dependent on the social context in which the technology is integrated."); Karasti, *supra* note 6, at 51 (arguing that information systems are "gendered" because they "have social patterns embedded in them" (internal quotation omitted)).

108. *Cf.* WILLIAMS, UNBENDING GENDER, *supra* note 5, at 94 (describing "first-generation mommy track policies" as those that link flexible work arrangements like part-time work to workplace marginalization); Williams, *Market Work*, *supra* note 10, at 336 (using the term "mommy track" to describe "policies that offer scheduling flexibility at the cost of permanent marginalization").

109. *See* Urs E. Gattiker, *Conclusion: A Brief Summary of Volume 4, in* WOMEN AND TECHNOLOGY 229, 234 (Urs E. Gattiker ed., 1994); *see also* Gurstein, *supra* note 10 (arguing that telecommuting is not a "panacea for unresolved tensions in the work and domestic spheres," but for many women it is at best a "survival strategy"); Risman & Tomaskovic-Devey, *supra* note 4, at 73 (concluding that for many women telecommuting is "nothing more than an illusory solution to the perceived conflict between childcare and employment"); *cf.* Martha Chamallas, *Women and Part-Time Work: The Case for Pay Equity and Equal Access*, 64 N.C. L. REV. 709, 711 (1986) (arriving at the same conclusion about part-time work arrangements).

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further exploit them, depending on the motives and goals of those in power."[110] Accordingly, what is needed is an external mechanism to shape the "motives and goals" of the employers that are implementing telecommuting arrangements. The next question, of course, is what form that external mechanism should take.

III. HOW TO FIX THE STAIRWAY: MENDING THE STEPS OR FINDING A NEW BUILDING

Because of the risk that telecommuting may end up repeating history, legislators should begin by determining whether historic legal responses have any lessons to teach. The primary legal response to the historic use of exploitative industrial homeworking was special, targeted legislation governing industries' use of homeworkers. Legislators directly regulated one specific aspect of the workplace that was exacerbating the work/family conflicts felt disproportionately by women: i.e., legislators attempted to repair an individual step that was diverting women's path to workplace equality. A modern analogy would be the Family and Medical Leave Act (FMLA), which regulates the provision of employee leave time to care for seriously ill family members.[111] The lack of such leave time exacerbates the work/family conflicts felt disproportionately by women, so FMLA attempted to repair that particular step towards women's workplace equality. A parallel approach in the telecommuting context would be to enact targeted legislation dictating the terms and conditions of telecommuting relationships. Unfortunately, if there is any lesson to be learned from the history of special legislation in the industrial homeworking context, it is that such an approach may do more harm than good.

Special legislation governing industrial homeworking began at the state level in the early twentieth century. Many states began by enacting a variety of "anti-sweating laws," in an attempt to improve the health and safety conditions for women industrial homeworkers.[112] Some states went as far as banning industrial homework altogether.[113] The first federal attempt to regulate industrial homework was the National Industrial Recovery Act of 1933 (NIRA), which eliminated homework in twenty-two industries and regulated it in many others, as part of the New Deal reforms.[114] When the Supreme Court struck down NIRA as unconstitutional in 1935, Congress quickly responded by passing minimum wage and overtime

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110. Morgall, *supra* note 96, at 88. *But see* Dangler, *supra* note 27, at 161 (arguing that "exploitative conditions remain an inevitable feature of all forms of homeworking (from rural electronics work to urban garment making, to suburban telecommuting)").

111. 29 U.S.C. §§ 2601-2654 (2000).

112. *See* DANGLER, *supra* note 6, at 128, 132-39 (explaining that by 1936, sixteen states had some form of legislation to control homework); Susan Porter Benson, *Women, Work, and the Family Economy: Industrial Homework in Rhode Island in 1934*, *in* HOMEWORK: HISTORICAL AND CONTEMPORARY PERSPECTIVES ON PAID LABOR AT HOME 53, 54 (Eileen Boris & Cynthia R. Daniels eds., 1989) (noting that by 1919, thirteen states had laws regulating or prohibiting industrial homework).

113. *See* DANGLER, *supra* note 6, at 132-39; Benson, *supra* note 112, at 54.

114. *See* DANGLER, *supra* note 6, at 88-89, 139-41; *see also* PHIZACKLEA & WOLKOWITZ, *supra* note 8, at 26 (describing NIRA); Benson, *supra* note 112, at 54 (same); Hilary Silver, *The Demand for Homework: Evidence from the U.S. Census*, *in* HOMEWORK: HISTORICAL AND CONTEMPORARY PERSPECTIVES ON PAID LABOR AT HOME 103, 105 (Eileen Boris & Cynthia R. Daniels eds., 1989) (same).

requirements in the Fair Labor Standards Act of 1938 (FLSA).[115] Initially, FLSA did not refer specifically to homeworking,[116] but by 1949, Congress had amended FLSA to prohibit homework in seven different apparel and garment industries that had the worst reputation for exploiting women workers.[117]

These targeted attempts to legislate industrial homeworking were largely unsuccessful. Not only were there major enforcement problems, but the legislative process effectively reinforced the preexisting sex segregation and inequality in both paid and unpaid work.[118] Both the supporters and the opponents of industrial homeworking laws defended their positions using the image of "sacred motherhood."[119] Advocates for industrial homework legislation, including social reformers and labor unions, argued that homework should be banned because it demanded too much of mothers' time and degraded the motherhood ideal.[120] Industrial employers, on the other hand, argued for permitting homework for largely the same reason: to preserve working women's ability to perform their essential responsibilities of home and family care.[121]

All of the participants in the debate over industrial homeworking legislation "shared a common conception of womanhood that equated women with mothers and mothers with the home,"[122] thereby essentializing women and women's caregiving role. Absent from the debate was any recognition of the underlying problem: that workplaces and social institutions were designed to make women shoulder a disproportionate double burden of paid and unpaid work.[123] Similarly absent was any acknowledgement that employers may be playing a part in rendering work/family conflicts gendered in nature. Looking for answers through special legislation made it far too easy for the legal and political debate to accept the underlying assumptions about men's and women's responsibilities both inside and outside of the home.

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115. *See* DANGLER, *supra* note 6, at 139-40; Boris & Daniels, *supra* note 59, at 7; *see also* Benson, *supra* note 112, at 54 (describing the limited reach and lifespan of NIRA); Calabrese, *supra* note 6, at 169-70 (explaining how homeworking regulation found its way back into federal law via FLSA); Silver, *supra* note 114, at 105 (describing NIRA's temporary effect).

116. *See* DANGLER, *supra* note 6, at 140. However, FLSA did require employers to meet minimum wage and overtime pay requirements, regardless of where the worker performed the work. *Id.*; *see also* duRivage & Jacobs, *supra* note 92, at 264 (describing FLSA's general recordkeeping requirements for employers with homeworkers).

117. *See* DANGLER, *supra* note 6, at 128, 140 (describing special regulations banning homework in the manufacture of jewelry, gloves and mittens, knitted outerwear, buttons and buckles, women's apparel, handkerchiefs, and embroidery); Boris, *supra* note 22, at 238 (describing the history of the enactment of the special FLSA homework regulations); Boris & Daniels, *supra* note 59, at 7 (same); Daniels, *supra* note 91, at 19-21 (describing the role of organized labor in obtaining federal restrictions on homework in seven of the best-organized trades); duRivage & Jacobs, *supra* note 92, at 264 (describing the history of FLSA amendments to prohibit homework in seven industries).

118. *See* DANGLER, *supra* note 6, at 128, 130, 141-47; *see also* duRivage & Jacobs, *supra* note 92, at 264 (noting the enforcement difficulties of FLSA's industrial homeworking provisions).

119. *See* DANGLER, *supra* note 6, at 128, 130.

120. *See id.* at 128, 130-31.

121. *See id.*

122. Boris, *supra* note 22, at 238; *see also* DANGLER, *supra* note 6, at 128, 131 (arguing that "homework regulation was couched in a New Deal policy that accepted the separation of economic life into men's and women's spheres," and explaining that "[s]uperimposed on the debate was an ideological commitment on the part of many lawmakers to the gender division of labor in the home").

123. DANGLER, *supra* note 6, at 128, 131.

This sex-stereotyped and essentializing rhetoric took center stage again in the early 1980s, when the Reagan Administration set out to deregulate industrial homeworking.[124] The Reagan Administration described homeworking as ideally suited for mothers with small children.[125] During the mid-1980s, Republican Newt Gingrich, who was then a Representative from Georgia, urged Congress to enact the Family Opportunity Act, while Utah's Republican Senator Orrin Hatch introduced the Freedom of the Workplace Act, both of which would have limited federal regulation of paid work from home.[126] Gingrich argued that the purpose of the new legislation was "to restore the family setting by allowing families to learn and earn together at home," while Hatch described the bills as a way to increase "opportunity for women, particularly those with small children, to work at home."[127] While these particular bills were ultimately unsuccessful, the Reagan Administration did succeed in using these arguments to convince Congress to lift six of FLSA's seven industrial homeworking bans.[128]

The rationale that the Reagan Administration gave for deregulating industrial homework invoked the same motherhood ideology that was used originally to support industrial homeworking regulation.[129] While the supporters of regulation in the 1940s had argued that industrial homeworking should be limited to preserve women's maternal role, the supporters of deregulation in the 1980s argued that homeworking was needed to allow women with financial needs to engage in paid work while preserving their "preference" for caregiving inside the home.[130] In both waves of regulation and deregulation, all participants in the debate accepted as a given the gendered division of labor at home and the limited opportunities for women in the paid labor market.[131]

This history should induce a healthy skepticism about enacting special legislation to govern telecommuting arrangements. For telecommuting to achieve its gender-equalizing potential, it instead should be viewed within a broader legal framework that is focused on restructuring the workplace more generally around a gender-neutral caregiving worker norm. Because the research on telecommuting indicates that employers themselves are playing a role in creating and retrenching

124. *See id.* at 1, 101, 129, 146, 156-57, 163-64.

125. *See* Calabrese, *supra* note 6, at 171.

126. PHIZACKLEA & WOLKOWITZ, *supra* note 8, at 26-27.

127. *Id.* (internal quotation omitted); *see also* Eileen Boris, *Homework and Women's Rights: The Case at the Vermont Knitters, 1980-85, in* HOMEWORK: HISTORICAL AND CONTEMPORARY PERSPECTIVES ON PAID LABOR AT HOME 233, 235 (Eileen Boris & Cynthia R. Daniels eds., 1989) (explaining that conservatives support homeworking arrangements as a way of "maintaining women's place within a male-dominated society: at home, earning wages, while caring for children").

128. *See* DANGLER, *supra* note 6, at 1, 101, 129, 146, 156-57, 163-64.

129. *See id.* at 164; *see also* PHIZACKLEA & WOLKOWITZ, *supra* note 8, at 14 (explaining how the Reagan campaign to deregulate industrial homework in the mid-1980s was promoted by using the image of the "home-working family" that made paid work a pleasure by reintegrating it with family life); Boris & Daniels, *supra* note 59, at 1, 6-7 (describing the politics surrounding the Reagan Administration's attempt to lift bans on industrial homework, and describing how defense of the patriarchal family was used to support deregulation); Calabrese, *supra* note 6, at 171 (explaining how the Reagan Administration's advocacy of homeworking as "ideally suited for mothers with small children" helped lead to deregulation (internal quotation omitted)).

130. *See* DANGLER, *supra* note 6, at 164.

131. *Id.; see also* Daniels, *supra* note 91, at 13 ("[T]he development of homework policy illustrates the ways in which state policies reproduce gender inequality by reinforcing dominant assumptions about women and work and by circumscribing the real choices available to women for paid labor.").

the gendered nature of work/family conflicts, employers are indeed an appropriate target for regulation.[132]   However, just as telecommuting will not be the single perfect answer to the work/family conflicts that currently fall disproportionately on women, neither will regulatory schemes that focus exclusively on telecommuting relationships and leave intact the rest of the gendered norms upon which the workplace is built.

There are several broader structures within which the telecommuting issue could be housed to help ensure that employers build telecommuting arrangements as a real step up for women workers.   One potential structure would be general antidiscrimination law, if employers' use of telecommuting to the detriment of women could be conceptualized as a form of sex discrimination.[133] While using sex discrimination law also risks framing the issue in ways that essentialize gender roles, the risk is likely to be less by framing the issue in terms of "equal opportunity," rather than in terms of "protecting" women and "preserving" women's caregiving role, as special legislation inevitably seems to do.[134] Another potential

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132. *See* Michelle A. Travis, Sex Discrimination in the Virtual Workplace (unpublished manuscript on file with author) (placing the telecommuting research in the context of the current feminist debate over whether women's economic disadvantage is caused primarily from sexist dynamics in the workplace or from women's unique commitment to family, and arguing that employer-focused solutions are appropriate because the telecommuting data supports the former theory over the latter); *see also* Schultz, *supra* note 86, at 1884, 1904-05 (explaining that one's view of the primary cause of women's economic disadvantage as either "women's position within families" or as women's position within "the workworld" dictates one's view on the "primary locus" for policy change).

133. *See* Travis, *supra* note 132 (applying sex discrimination doctrine to employers' use of telecommuting arrangements); *cf.* Abrams, *supra* note 6, at 1223-24, 1227 (applying sex discrimination law to "Herculean time commitments, frequent travel, . . . stringent limits on absenteeism," and "the protracted evaluation period (often six to ten years) that precedes promotion decisions," which all have a disparate impact on women); Chamallas, *supra* note 109, at 711-18 (applying sex discrimination law to part-time work that pays a lower wage rate than full-time work and excludes part-timers from benefits and advancement, all of which have a disparate impact on women); Dowd, *supra* note 10, at 738 (applying sex discrimination law to "no-leave or inadequate leave policies" that disproportionately burden women); Herma Hill Kay, *Equality & Difference: The Case of Pregnancy*, 1 BERKELEY WOMEN'S L.J. 1, 32 (1985) (applying sex discrimination law to no-leave or inadequate leave policies for pregnancy); Candace Saari Kovacic-Fleischer, *Litigating Against Employment Penalties for Pregnancy, Breastfeeding and Childcare*, 44 VILL. L. REV. 355, 356 (1999) (applying sex discrimination law to inadequate leaves for pregnancy, breastfeeding and childcare); Reva B. Siegel, Note, *Employment Equality Under the Pregnancy Discrimination Act of 1978*, 94 YALE L.J. 929, 940-45 (1985) (applying sex discrimination law to inadequate leave policies); Williams, *Reconstructive Feminism, supra* note 11, at 91, 95-96, 160 (applying sex discrimination law to employer demands for full-time work, extensive overtime, and the ability to relocate, which have a disparate impact on women); Williams, *Market Work, supra* note 10, at 306, 333 (applying sex discrimination law to inequitable part-time arrangements, lengthy promotion tracks, and unlimited overtime demands, and proposing "a paradigm shift that allows us to see work/family conflict as discrimination against women").

134. *See* Joan Williams, *Do Women Need Special Treatment? Do Feminists Need Equality?*, 9 J. CONTEMP. LEGAL ISSUES 279, 316-17 (1998) (arguing that the fact that "Americans are more receptive to arguments based on claims of entitlement than to claims based on need," means that "equality rhetoric (and discrimination claims, which are really claims of equality withheld), are the strongest weapons American feminists have in a culture deeply committed to a self-image of equality"); *see also* Dowd, *supra* note 11, at 154-55 (stating that antidiscrimination law should not be abandoned "wholesale" in the work/family conflict arena, "because [antidiscrimination law] takes advantage of an existing set of ideas and legal categories that retain great power and persuasive capacity").

alternative would be to expand antidiscrimination doctrine to cover parents or caregivers in general,[135] perhaps by incorporating the "accommodation" duty that is such a prominent feature of disability discrimination law,[136] and viewing telecommuting as one form of caregiving accommodation. Those alternatives would speak in gender-neutral terms, and the accommodation concept is promising because it explicitly contemplates active restructuring of exclusionary workplace practices, procedures, and norms. An in-depth analysis of these types of broader legal frameworks is beyond the scope of this Article. However, because the use of special legislation regulating telecommuting risks "ignoring the lessons of history,"[137] the exploration of these broader alternatives is the task that I take on in my following work.[138]

IV. CONCLUSION

Legal scholars are correct when they encourage workplace restructuring as one important component of solving the work/family conflicts that still fall most heavily on women.[139] They are also correct that telecommuting could be one such

135. *Cf.* Ruth Colker, *Pregnancy, Parenting, and Capitalism*, 58 OHIO ST. L.J. 61, 64, 83 (1997) (arguing that workplace restructuring should be achieved by requiring accommodation for children, rather than thinking in terms of accommodating women); Samuel Issacharoff & Elyse Rosenblum, *Women and the Workplace: Accommodating the Demands of Pregnancy*, 94 COLUM. L. REV. 2154, 2200-01 (1994) (describing the European Community's approach, which "starts from the premise that childbearing is a societal good, and the laws reflect a substantial commitment to enabling women and men to work and have a family"); Peggie R. Smith, *Accommodating Routine Parental Obligations in an Era of Work-Family Conflict: Lessons from Religious Accommodations*, 2001 WIS. L. REV. 1443, 1456 (2001) (emphasizing the need to redesign workplace structures that devalue all "employees with parenting responsibilities," not just women).

136. *See* The Americans with Disabilities Act of 1990, 42 U.S.C. §§ 12112(a), 12111(8), 12111(9)(B) (2000) (requiring employers to accommodate qualified individuals with a disability); *cf.* Deborah A. Calloway, *Accommodating Pregnancy in the Workplace*, 25 STETSON L. REV. 1, 25-49 (1995) (demonstrating how current antidiscrimination laws might support accommodations for pregnancy); Issacharoff & Rosenblum, *supra* note 135, at 2155, 2158 (concluding that the workplace "must affirmatively accommodate pregnancy, not merely prevent pregnancy-based discrimination"); Pamela S. Karlan & George Rutherglen, *Disabilities, Discrimination, and Reasonable Accommodation*, 46 DUKE L.J. 1, 2-5, 38-41 (1996) (analyzing whether employers should have a duty to accommodate women workers); Laura T. Kessler, *The Attachment Gap: Employment Discrimination Law, Women's Cultural Caregiving, and the Limits of Economic and Liberal Legal Theory*, 34 U. MICH. J.L. REFORM 371, 448-67 (2001) (articulating a theory of workplace accommodation for women's carework); Kovacic-Fleischer, *supra* note 133, at 368 (arguing that "[a]ccommodations for women's reproduction and childcare differences must be made for women to be equal to men in the workplace"); Smith, *supra* note 135, at 1445, 1459-66 (arguing that a duty to accommodate parental obligations should be modeled after Title VII's religious accommodation provision).

137. Gunter, *supra* note 6, at 451.

138. *See* Travis, *supra* note 132.

139. *Cf.* WILLIAMS, UNBENDING GENDER, *supra* note 5, at 85-86 (suggesting ways to restructure the workplace around a gender-neutral worker with caregiving responsibilities); Kathryn Abrams, *Cross-Dressing in the Master's Clothes*, 109 YALE L.J. 745, 758 (2000) (book review) (emphasizing the importance of "alter[ing] the dominant norms of most workplaces or the kinds of roles that men and women play within them"); Dowd, *supra* note 11, at 80-82, 135-68, 171 (explaining the need for structural reform in the workplace); Schultz, *supra* note 86, at 1885, 1940 (seeking structural transformations in the workplace); Smith, *supra* note 135, at 1456 (emphasizing the importance of "altering structures that devalue employees with parenting responsibilities"); Vagins, *supra* note 5, at 90, 92-93 (proposing methods for restructuring the workplace away from male-worker norms).

restructuring technique.[140] However, social scientists are correct when they argue that the effects of telecommuting may only be understood if telecommuting is viewed within a broader economic, social, and political context.[141] The gender-equalizing potential of telecommuting lies less in the technology itself than it does in the hands of those who design and implement telecommuting arrangements.

While history suggests that legislation focused solely on telecommuting is unlikely to achieve the perfect design, it also suggests that the legal regulation of the workplace is unlikely to be a complete solution. As one telecommuting researcher has explained:

> In the absence of structural changes that would allow women to participate in more full and meaningful work experiences (changes such as alterations in the sexual division of labor in the household, an end to discrimination against women in the labor market, establishment of flexible work time for all workers, and provision of high-quality, low-cost child care), the resurgence of homework in the modern economy promises to contribute to the continued subordination of women in economic, political, and social aspects of life.[142]

It is only with such broader, structural changes that the majority of women workers will be likely to gain access to the truly "wonderful" telecommuting experience that they have read about in *Working Mother* magazine.

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140. WILLIAMS, UNBENDING GENDER, *supra* note 5, at 85; Rhode, *supra* note 5, at 844; Vagins, *supra* note 5, at 92-93.

141. *See, e.g.*, Dangler, *supra* note 27, at 161.

142. *Id.*