

**Carework, Gender Inequality and the State:
Women's Employment and Children with Disabilities**

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Abstract

Despite the deinstitutionalization of people with disabilities in the U.S.A., much of the care for children with disabilities is performed at home, where carework is largely women's work. Thus, the gender division of labor in the care for children with disabilities, in the absence of greater institutional or state support, is one mechanism for the reproduction of gender inequality more broadly. Using new data on disabilities from the 2000 Decennial Census, we test for an association between the presence of children with disabilities and the division of paid work between husbands and wives. The results are mostly consistent with evidence that when carework is to be done within families, it falls disproportionately to women -- undermining women's career mobility and contributing to gender inequality in the labor market as well as within families. However, fathers are unexpectedly more rather than less likely to stay out of the labor force when they have children with disabilities.

1. Introduction: Carework and gender inequality

The deinstitutionalization of people with disabilities stands as one of the major civil rights achievements of the twentieth century in the United States. However, care for children with disabilities -- like other carework (Cancian and Oliker 2000; Folbre 2001) - continues to present problems for gender equality (Traustadottir 1991). The vast majority of children with disabilities attend mainstream schools as a result of intense pressure from disability advocates. Yet much of the care for children with disabilities is still performed at home (Marcenko and Meyers 1991), a center of gender inequality, where carework is largely still women's work. The disproportionate share of carework women perform at home restricts their access to the labor market and reinforces the devaluation of their work, contributing to gender inequality in general. Thus, the gender division of labor in the care for children with disabilities may be one mechanism for the reproduction of gender inequality more broadly. This paper tests that hypothesis, using new data on disabilities from the 2000 Decennial Census.

2. Deinstitutionalization and the family

In the past 30 years, people with disabilities have become a much more integral, visible part of their communities in the United States. This process represented a paradigmatic change in perceptions about disability and subsequent reform of policies concerning the rights and the principles of care for people with disabilities. The reform emphasized and was built upon an increased role for the family in providing such care.

Before the Industrial Revolution, people with disabilities participated in the production process, in agriculture and small-scale industries. But industrialization

imposed strict discipline, deadlines and production norms, eliminating the flexible and individualized work environments that had permitted the integration of people with disabilities. At the same time, by drawing more people into the formal labor market, and into crowded living conditions, the industrial economy rendered families less able to provide for their members with disabilities at home. As a result, people with disabilities increasingly were committed to specialized institutions, where they were marginalized from the mainstream of social life (Oliver 1990).

The civil rights movement for people with disabilities made its appearance in the U.S. in the 1960s, following the Black civil rights movement with which it has been compared (Fleischer and Zames 2001). The movement by 1973 secured federal legislation patterned after the Civil Rights Act, and eventually led to the more comprehensive Americans with Disabilities Act in 1990. The common thread through these developments was the integration of people with disabilities into community life. For children, that means growing up in their families of origin, having access to services that cater to their needs and being able to participate in classrooms with children who do not have disabilities. Comparable data over time are difficult to compile, but one measure of this trend is the number of people reported working as "special education teachers" in the Current Population Survey, which doubled from 200,000 in 1984 to 400,000 in 2000. The explosion of this occupation did not affect its gender composition, however, which remained constant at around 85 percent female (see Figure 1). Thus, the deinstitutionalization movement largely transferred the carework for children with disabilities from specialized institutions to local public schools on the one hand, and to

family homes on the other. In both contexts women performed this work disproportionately.

3. Who cares for children with disabilities at home?

A series of small, qualitative studies has found that women shoulder a disproportionate share of carework for children with disabilities, including Heller, Hsieh and Rowitz (1997), who use a sample of 113 families with mentally retarded children; Cook (1988), who uses a sample of 36 families with young adults entering a psychiatric rehabilitation program; Marcenko and Meyers (1991), who use a sample of 89 families with developmentally disabled children; Lewis, Kagan and Heaton (2000), who use a sample of 32 families of children with disabilities; and Traustadottir (1991), who uses a small sample of in-depth interviews and participant observation in a support group.

Thus, women appear to take on the lion's share of carework for children with disabilities. Further, they do so in a context of inadequate institutional, community and family support (Lewis, Kagan and Heaton 2000; Marcenko and Meyers 1991). Therefore, one would expect to find that having a child with a disability affects labor force participation for women, and the limited evidence consistently supports that conclusion. Breslau et al. (1982), using a sample of 825 families, find that mothers of children with disabilities are less likely to be in the labor force, and the effect is stronger for children with more severe disabilities. Baldwin and Glendinning (1983), combining a small longitudinal study with a survey of about 1,100 families, find “overwhelmingly clear evidence that severe disability in a child is associated with marked differences in women’s participation rates, hours of work and earnings” (p. 60). More recently, Booth and Kelly (1998), using a sample of 305 families, show that mothers of "special needs"

children are less likely to return to the labor market in the first year after birth, with 30% reporting that caring for their child is the reason for their decision -- results that are supported in a subsequent analysis (Booth and Kelly 1999).

However, we know of only one study on children with disabilities and women's labor force participation that uses a nationally representative sample: Porterfield's (2002) analysis of 1994 data from the Survey of Income and Program Participation. She finds that young children with disabilities have much stronger negative effects on single and married women's labor force participation than young children without disabilities. The focus in our analysis is somewhat different, as we attempt to address gender inequality within married couples -- controlling for other factors that affect such inequality -- using new data from the 2000 Census

4. Data and methods

The 2000 Census included six new questions ascertaining the presence of disabilities, four of them appropriate for children: *sensory* disability, *physical* limitations, *mental* disability (learning, remembering or concentrating) and *self-care* disability (Adler et al 1999). The questionnaire items used in the Census are presented in Figure 2.

Analysis of the public-use microdata shows that Census 2000 captured approximately 2.6 million children with disabilities, with mental disabilities by far the most common, and a small proportion of children reported to have multiple disabilities (see Figure 3).

We employ the 5% Public Use Microdata Sample file. The Census Bureau excludes children under 5 years old from these measures; we analyze married-couple

families with children ages 5 to 15.¹ We limit the analysis to married couple primary families that meet the following conditions: (1) at least one own child in the age range 5-15; (2) both spouses are ages 25 to 64; and, (3) at least one member was employed in 1999.² The resulting sample size is 887,037 married couples. Of these, 244,709 had at least one spouse who was not employed in 1999. If the presence of a child with a disability is associated with a greater imbalance of market work in favor of husbands, or increases the odds that the wives were not employed at all in the previous year -- net of other factors affecting gender inequality -- that will be consistent with the hypothesis that the gender division of labor in the care for children with disabilities is a mechanism for the reproduction of gender inequality.

The first dependent variable in our models is the *division of paid work* between husbands and wives, constructed as follows:

$$Y = (A-B) / (A+B)$$

Where A is the wife's hours worked in the labor market in 1999 (the product of weeks worked and hours usually worked per week), and B is the husband's hours in the labor market. This variable takes on a value of 1 when the wife was the only one working, 0 when both worked the same amount, and -1 when only the husband was working.

¹ We exclude disabled children ages 16 to 18 because the Census's "employment disability" question applies to those over age 15, and it is possible these older children are identified as having employment disabilities instead of the four childhood disabilities.

² Because we are interested in the effect of having a child with disabilities on the division of labor within married couples, we do not include foster or adopted children who have disabilities, because it is possible that parents knew of the disability when they brought the children into the home. In that case the causality between children's disability and parents' employment might be reversed.

Because the decision or ability to find work at all may also be affected by carework obligations within the family, we also analyze a second dependent variable, a dummy variable indicating whether the wife was employed at all in 1999. For this analysis we restrict the sample to those couples in which one of the spouses was not employed, to test whether the presence of children with disabilities affects the odds that the spouse who is not employed is the wife. We model these outcomes as a function of individual and couple characteristics.

Without prior knowledge of the level of carework required to children with each of the different disabilities measured, we conducted preliminary tests for the effects of each disability type. We also examined the percentage of children with each disability that were attending school at every age between 5 and 15. We found physical and self-care disabilities appeared to require more care than the former. For example, children with physical and self-care disabilities were much more likely to be out of school (6.1% and 6.2% respectively) than those with mental (2.6%) or sensory (3.9%) disabilities. Further examination shows similar age patterns in school attendance for the two pairs of disabilities (see figure 4).

Some children were reported to have multiple disabilities, most commonly a mental disability and one or more of the other disabilities. In the regressions, therefore, we test for the effects of having a child with any disability, with dummy variables indicating the presence of a child of *each age 5-15 with a disability*. Then we test whether those effects differ for those requiring more care with additional dummy variables indicating a child of *each age 5-15 with physical or self-care disabilities*. The large sample size afforded by the Census data means that even among couples with

children with physical or self-care disabilities and one spouse not employed, we still have samples of at least 388 for each single year of age.

Control variables, all measured at the couple-level, include dummy variables for: *wife's education*, measured at four levels with less than high school as the reference category, and a dummy variable indicating couples in which the *husband has more education*; a series of mutually-exclusive race/ethnicity variables indicating couples in which both members are *Latino*, *Black*, *Asian/Pacific Islander*, or *American Indian*; a variable indicating couple members are of *different race/ethnicity*; a variable indicating the householder is *foreign born*; variables for *wife with disability* and *husband with disability*; the number of children *under age 5*, and dummy variables for the presence of a child at *each age 5 to 15*. To account for possible carework contributions -- or burdens -- from other household members, we control for the presence of *older relatives* (any parent, parent-in law, grandparent, aunt or uncle of the householder) and any *other adult* age 25 or older. We also control for *wife's age* and its square, and the *age difference* between husband and wife, using continuous variables; and the four *regions* of the country. Finally, in the model for the division of paid work, we also control for the total number of hours both spouses were employed, so our dependent variable reflects the gender division of paid work net of total paid work.

5. Results

Figure 5 shows the distribution of the division of paid work across couples with children ages 5-15, with -1 indicating wife contributed none of the total paid hours in 1999, and 1 indicating the wife contributed all of the total paid hours. The figure shows the division of paid work is slightly more skewed toward husbands in couples that have

children with disabilities (mean of $-.362$ versus $-.355$). These couples are also considerably more likely to have one spouse not employed at all (at either extreme in the figure). Although wives not employed is a much more common arrangement, children with disabilities are associated with a larger proportionate increase in the rate at which husbands are not employed, which increases more than 50 percent, from 2.9 to 4.5 percent. Bivariate statistics show that couples with children who have disabilities are younger, less well educated, more likely to have disabilities themselves, and have more children overall. Therefore, we turn to the multivariate analysis to see if the pattern in Figure 1 holds with controls for these and other variables.

Figure 5 shows a distribution of paid work within couples that may be viewed as censored at both ends. Therefore, we analyze the determinants of this outcome using a Tobit regression with upper and lower censoring. This is essentially a two-stage regression which first ascertains the probability of being above or below the limits of the variables measurement, and then uses those probabilities to assign couples to points in the distribution beyond the observable limits. We analyze the odds of wives' non-employment -- given that one spouse is not employed -- using standard logistic regression.

The results from both regressions are presented in Table 1, which shows that the pattern in Figure 5 is largely upheld: children with disabilities have a disequalizing effect on the gender division of paid work in general, but in those cases in which one spouse is not employed for the entire year, children with disabilities increase the odds that spouse will be the husband rather than the wife. Because the regression results contain many

variables, and the single-year variables are entered as interactions, we graph the results in figures 6 and 7.

Figure 7 shows the effects of any child, a child with any disability, and a child with a physical or self-care disability, by single years of age, on the division of paid work within married couples. As expected, children of any age are associated with husbands doing a larger share of paid work within couples. However, the effects of children with disabilities depend on the type of disability. The effects of any disability are equalizing -- increasing wives' relative share of paid work hours. But the effects of physical or self-care disabilities, which we believe call for more intensive hands-on care work, have the hypothesized effect -- wives in these families perform less of the total share of paid work hours. The results suggest there may be larger effects of these more intensive disabilities at younger and older ages.

The results from the analysis predicting which spouse is not employed given that one is not employed are much different, as shown in Figure 8. Wives are much more likely to be the home-bound spouse, especially when children are younger. However, the presence of a child with any disability, or one with a physical or self-care disability, either reduces the odds that wives will play this role or has no significant effect. Thus, as seen in the Figure 5, husbands have a greater tendency to stay home while their wives are employed when the couple has a child with a disability, even holding constant the other variables in the model.

To help untangle these contradictory results, we add an additional variable to both models -- an indicator for the presence of one of those few children with a disability who is not attending school. A significant portion of these children -- about one quarter -- are

five years old and therefore may only be starting school late. However, with single years of age controlled in the models, we believe this variable helps identify the independent effect of those children who require more intensive care work in the home. The results from these models (tables on the way) show that children with disabilities who are not attending school significantly skew the division of paid work further in the direction of husbands, by an additional $-.094$ on top of the effects in the original model. In the logistic model, this variable substantially increases the odds that the wife is the spouse who stays home, with a significant odds ratio of 1.35.

6. Preliminary Conclusions

These results suggest several conclusions about gender inequality and the relationship between families, schools, and the former institutions for people with disabilities. Clearly, deinstitutionalization has not resulted in the transfer of all caring work from institutions to families -- the vast majority of children with any disability are reported to be attending school. However, it is equally clear -- from previous research as well as from these results -- that a significant amount of carework remains for families with children with disabilities. These results are mixed. Results for the division of paid work are mostly consistent with previous evidence that when carework is to be done within families, it falls disproportionately to women -- undermining women's career mobility and contributing to gender inequality in the labor market as well as within families.

On the other hand, analysis of the ends of the distribution is somewhat contradictory. The presence of children with disabilities increases, rather than decreases, the odds that husbands will be the ones who stays home, presumably performing a larger

share of carework associated with these children. However, the presence of a child with a disability who is not attending school has a strong positive effect on the relative odds that wives will be the ones to stay home.

We can offer speculation on several reasons why husbands may be more likely to stay home when they have children with disabilities. One possibility is that the increased care burden associated with these children somehow changes the motivation for fathers to increase their involvement with children. We have no evidence for this interpretation, and because the effect of children in general is so strongly in the other direction, we are skeptical of its efficacy. Another possibility is that certain kinds of care work required of children with disabilities -- for example dealing with school bureaucracies, or performing physical tasks such as lifting and carrying -- may be considered more suitable for fathers to perform. Finally, there may be aspects of the social welfare regime -- such as some kinds of means testing -- that alter the incentive structure in ways that encourage fathers to stay home.

Finally, we note that if children with disabilities were not able to attend school, these results imply the consequences for gender inequality would be even more severe -- more women staying out of the labor market or working fewer hours, and therefore earning smaller proportions of family income and reducing their economic options outside the family. To alleviate this problem, then, requires either the redistribution of carework between men and women within families, or the introduction of additional institutional supports to help care for children with disabilities. History suggests that the prospects may be better for the second alternative.

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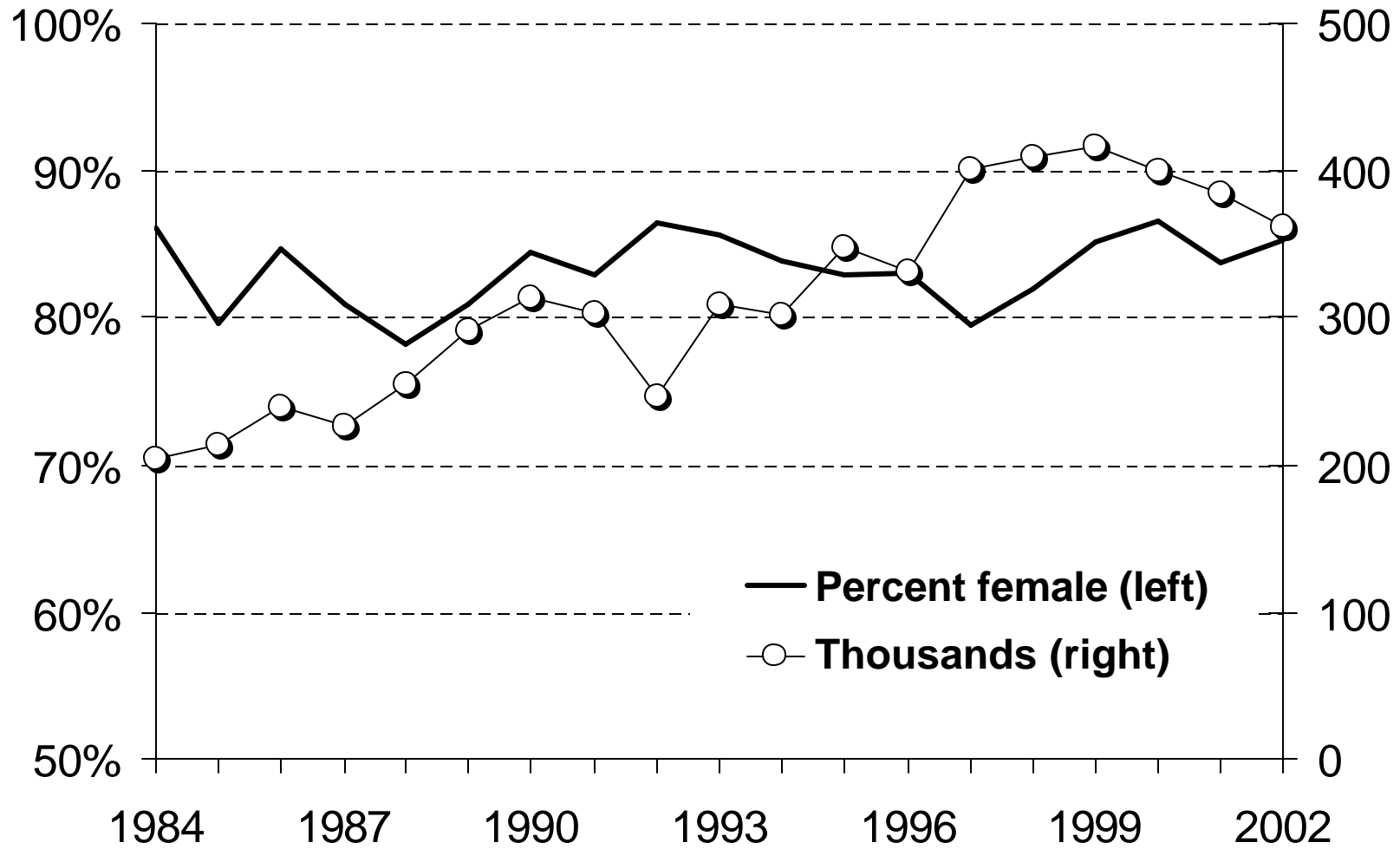
Table 1. Results for Division of Market Work and Odds Wife Not Employed, Given One Not Employed

<i>Variable</i>	<i>Tobit Coefficient</i>	<i>Odds Ratio</i>
Intercept	-.886 ***	--
Total paid work hours	.0002 ***	--
Wife's age	-.012 ***	1.028 **
Wife's age squared	.0001 ***	1.000 ***
Age difference	.005 ***	.949 ***
Wife H.S. graduate	.037 ***	.980
Wife some college	.061 ***	.864 ***
Wife B.A. degree	.020 ***	1.138 ***
Wife M.A. or higher	.094 ***	.637 ***
Husband has more education	-.130 ***	2.259 ***
Hispanic	.068 ***	.880 ***
Black	.256 ***	.278 ***
Asian/Pacific Islander	.118 ***	.560 ***
American Indian	.317 ***	.309 ***
Couple of difference race/ethnicity	.108 ***	.559 ***
Householder is foreign-born	-.076 ***	1.647 ***
Wife with disability	-.067 ***	1.421 ***
Husband with disability	.240 ***	.174 ***
Older relative present	.035 ***	.864 ***
Other adult present	.017 ***	.973
Northeast	-.004 *	.943 **
Midwest	.021 ***	.893 ***
South	-.023 ***	1.009
Number of children under age 5	-.168 ***	2.119 ***

Table 1 (Continued).

<i>Variable</i>	<i>Tobit Coefficient</i>	<i>Odds Ratio</i>
Any child, age		
5	-.132 ***	1.731 ***
6	-.109 ***	1.534 ***
7	-.094 ***	1.416 ***
8	-.077 ***	1.329 ***
9	-.070 ***	1.317 ***
10	-.057 ***	1.218 ***
11	-.048 ***	1.144 ***
12	-.042 ***	1.151 ***
13	-.037 ***	1.091 ***
14	-.035 ***	1.076 **
15	-.026 ***	1.055 *
Child with any disability, age		
5	.042 **	.669 **
6	.024 +	.751 *
7	.041 ***	.784 *
8	.022 *	.924
9	.049 ***	.605 ***
10	.016 +	.983
11	.034 ***	.770 **
12	.013	.938
13	.041 ***	.757 **
14	.018 +	.885
15	.026 **	.801 *
Child with physical/self-care disability, age		
5	-.077 ***	1.399
6	-.106 ***	1.591 *
7	-.058 **	1.234
8	-.031	.987
9	-.092 ***	1.984 ***
10	-.043 *	.950
11	-.055 **	1.380 +
12	-.037 +	1.108
13	-.022	1.204
14	-.038 +	1.132
15	-.074 ***	1.441 *

Fig 1. Special Education teachers: 1984-2002



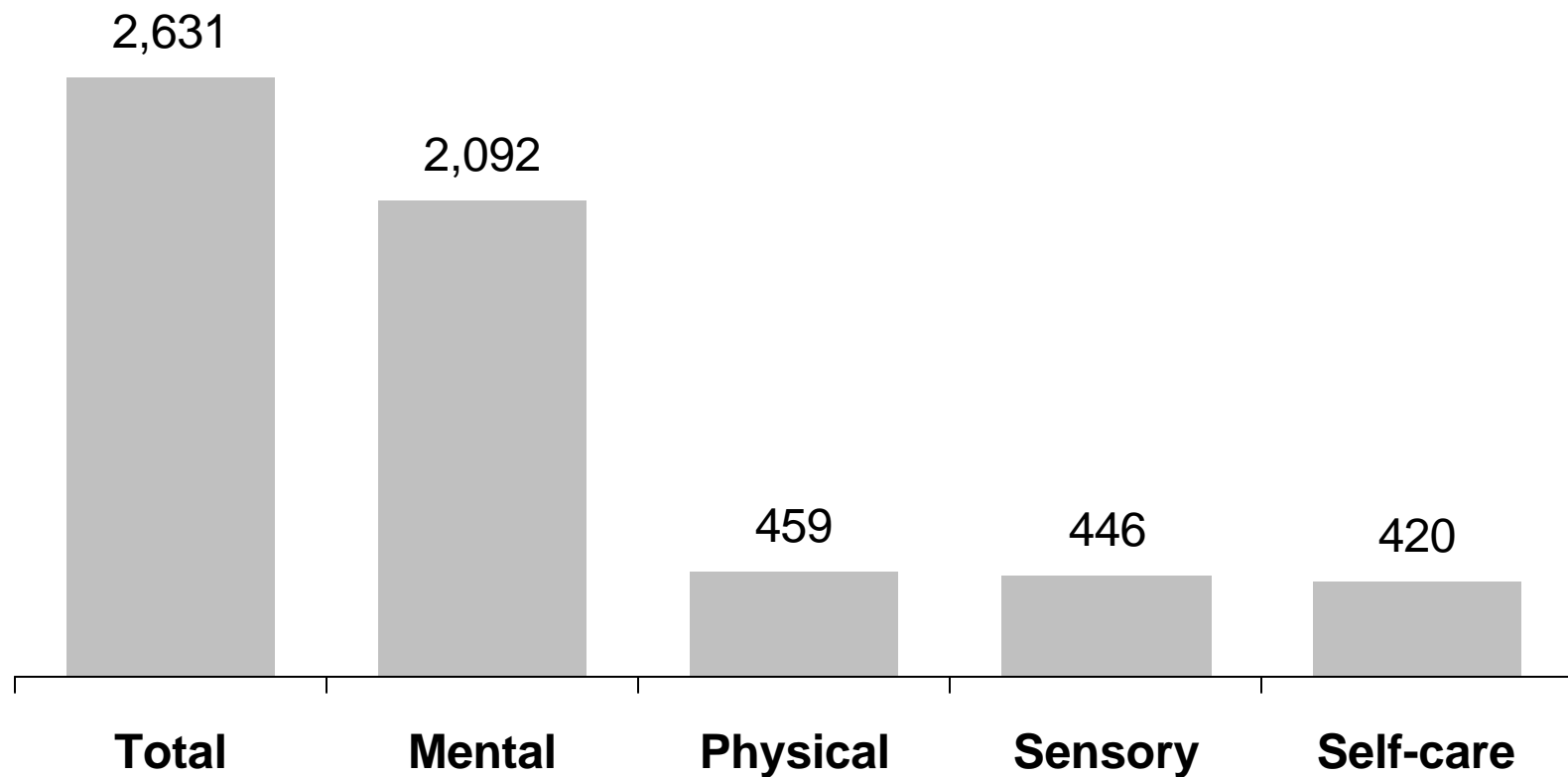
Source: March Current Population Surveys.

Fig 2. Disabilities in the 2000 Census

- | | | | | |
|-----------|---|--------------------------|--------------------------|-------------|
| 16 | Does this person have any of the following long-lasting conditions: | | | |
| | | Yes | No | |
| | a. Blindness, deafness, or a severe vision or hearing impairment? | <input type="checkbox"/> | <input type="checkbox"/> | ← Sensory |
| | b. A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying? | <input type="checkbox"/> | <input type="checkbox"/> | ← Physical |
| 17 | Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have any difficulty in doing any of the following activities: | | | |
| | | Yes | No | |
| | a. Learning, remembering, or concentrating? | <input type="checkbox"/> | <input type="checkbox"/> | ← Mental |
| | b. Dressing, bathing, or getting around inside the home? | <input type="checkbox"/> | <input type="checkbox"/> | ← Self-care |

Fig 3. Children with disabilities

Thousands of children, ages 5-15



Source: 5% PUMS

**Fig 4. Percent attending school,
by disability type and age**

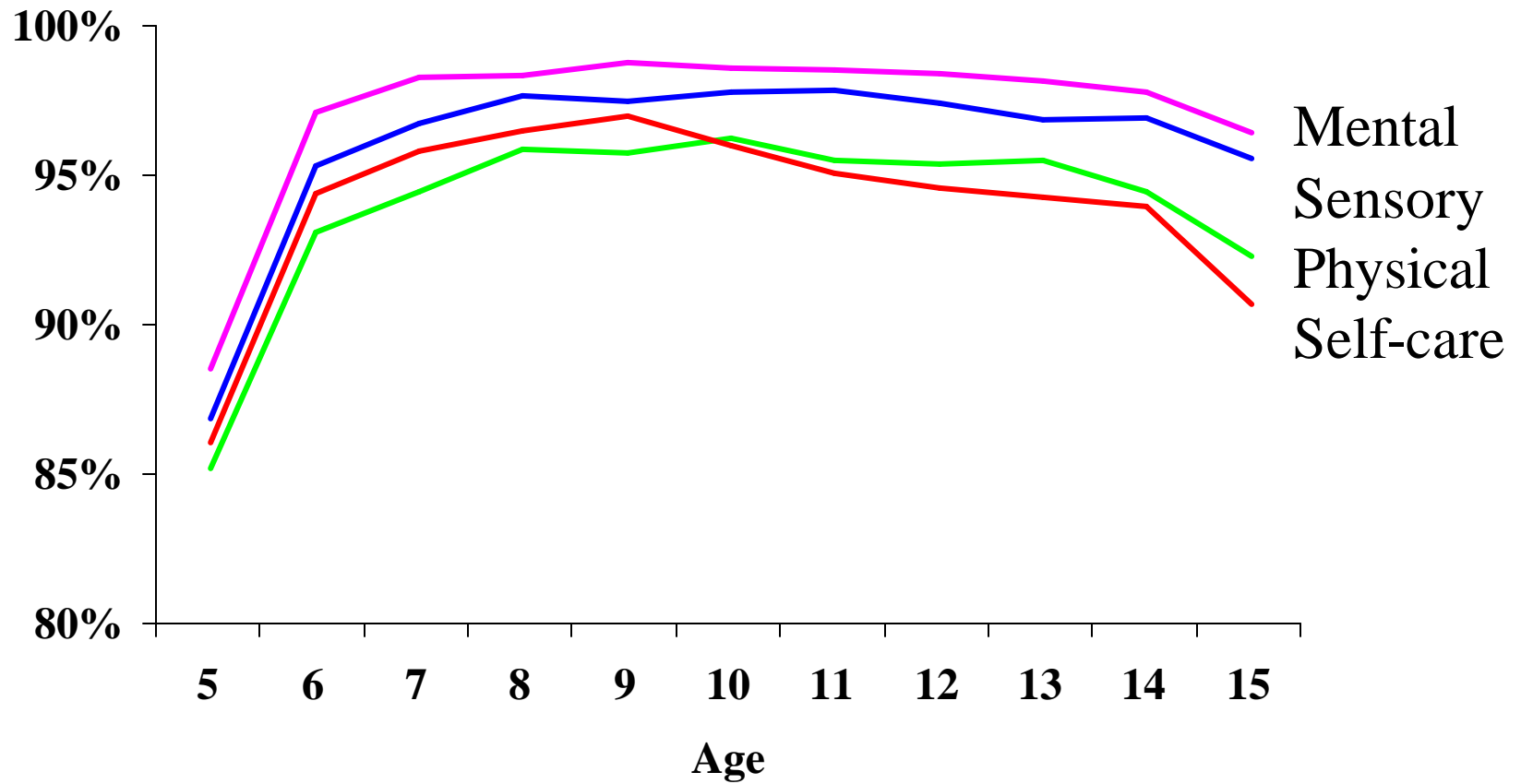


Fig 5. Division of paid work

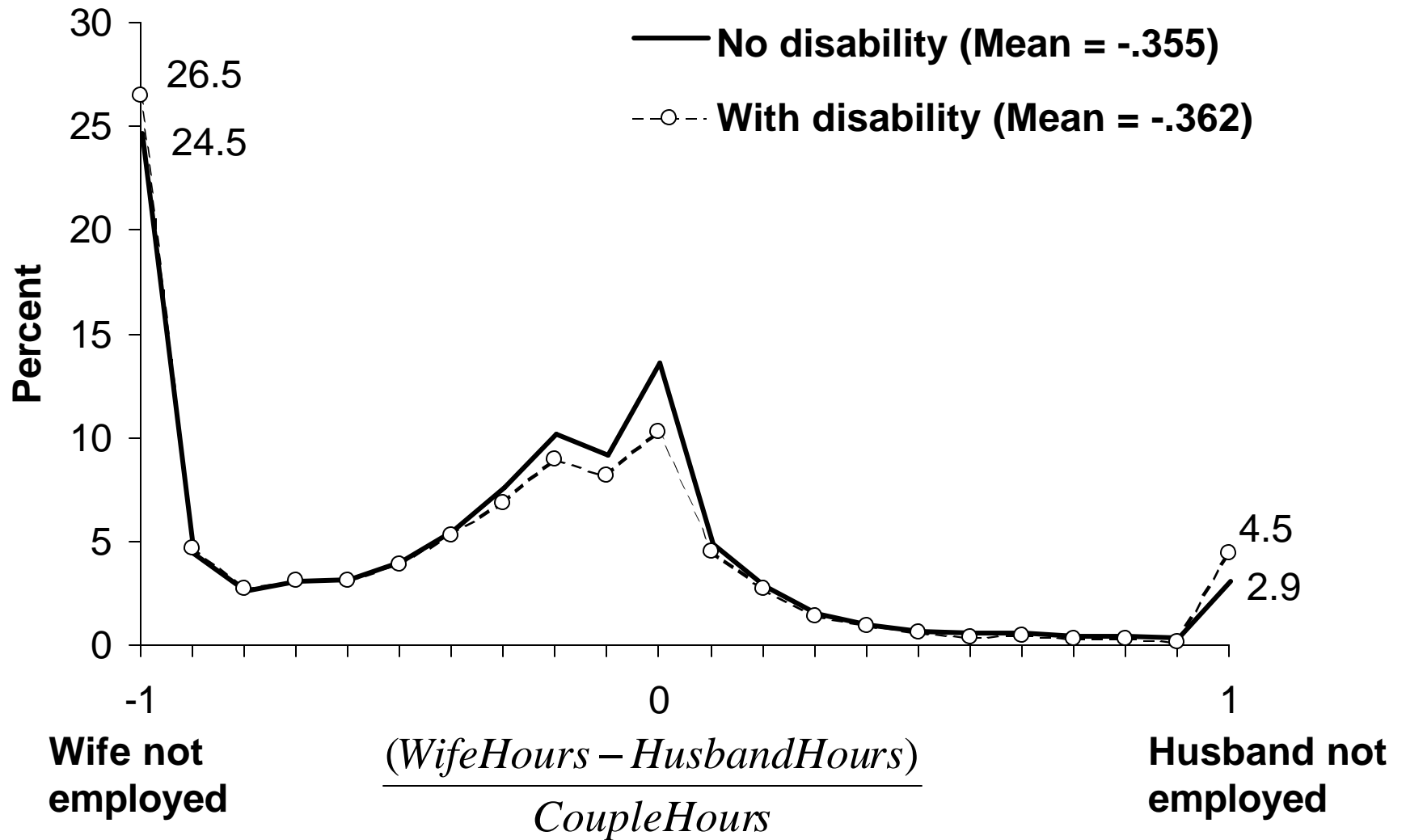


Fig 6. Effects on Division of Paid Work

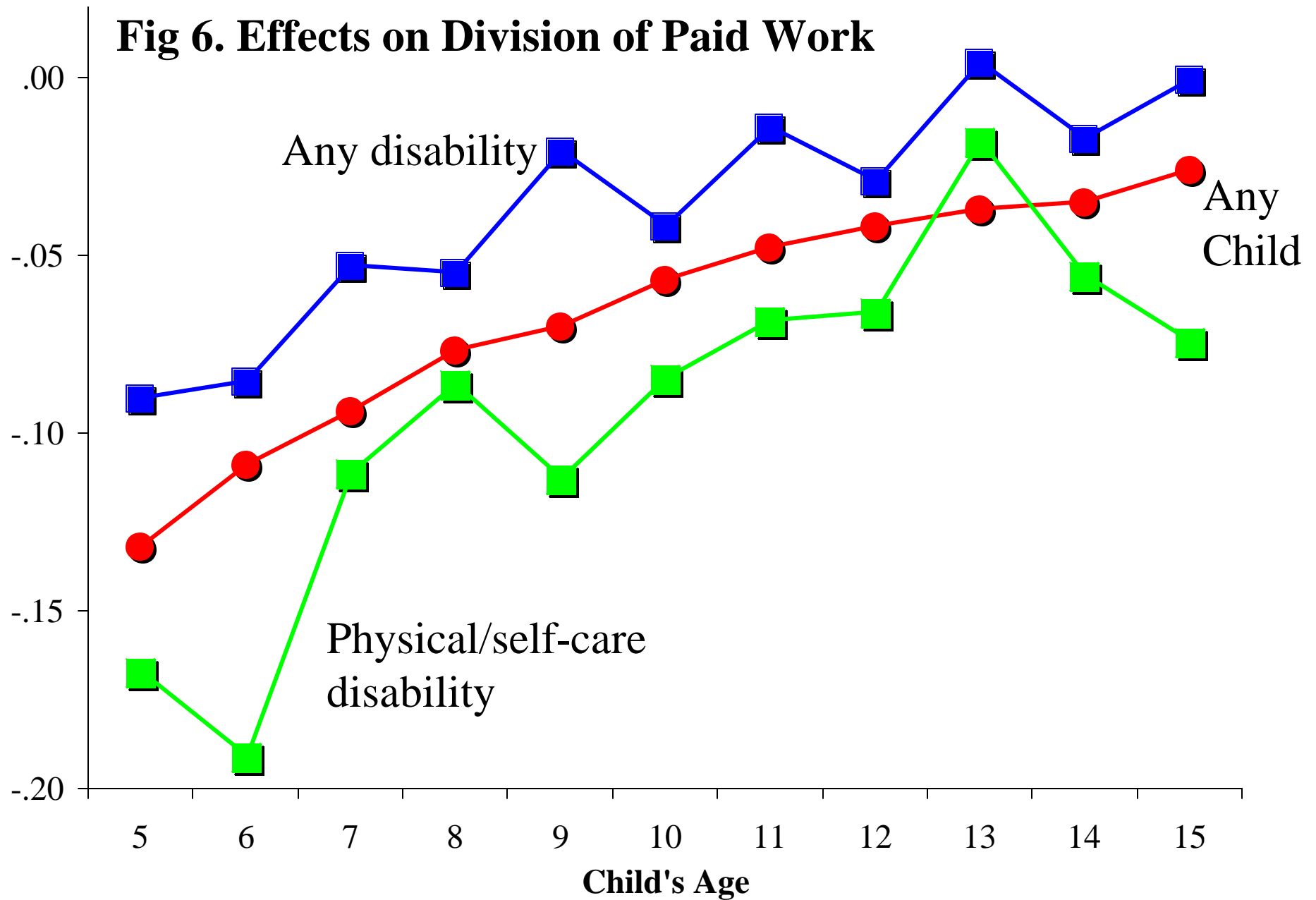


Fig 7. Effects on Odds Wife Not Employed
(Given one not employed)

