

# Impacts of Federal Breastfeeding Policy and Socioeconomic Factors on Indiana Women's Breastfeeding Practices and Attitudes



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## INTRODUCTION

- Breastfeeding is beneficial to infants, yet rates are low in low-income mothers.
- WIC is a **federally funded program** that provides **nutritious food, nutrition education, breastfeeding support, and health care referrals for 9.2 million low-income women, children, and infants at nutritional risk in the United States**<sup>6</sup>.
- Food package benefits based on breastfeeding behavior<sup>5</sup>.
  - Exclusive*: more food, no formula, can participate for 1 year
  - Partial*: less food, some formula, can participate for 6 months
  - None/Formula*: less food, more formula, can participate for 6 months
- The *Interim Rule* (2009) added fresh fruit and vegetables and increased the amounts of food in the exclusive breastfeeding food package (BFP)<sup>5</sup> to **encourage more women to exclusively breastfeed**.
- Nationwide, the *Interim Rule* **appeared to increase exclusive breastfeeding, but the fraction of WIC recipients who did not breastfeed at all also increased and the fraction who partially breastfed decreased**. There was also a small, but significant, increase in mean breastfeeding duration.<sup>5</sup>
- This policy appears to assume that exclusive breastfeeding is unhindered by work and other social and economic factors.
- The *Interim Rule* might be placing undue pressure on vulnerable mothers.
- In this study, I address the question: Does this federal policy (the *Interim Rule*) influence women's breastfeeding behavior in a helpful manner?**

## HYPOTHESES

**Hypothesis 1:** The *Interim Rule* does influence women's decisions about breastfeeding.

**Hypothesis 2:** Employment has a significant impact on decisions about breastfeeding.

**Hypothesis 3:** WIC recipients and non-recipients differ significantly in their breastfeeding behavior.

## STUDY POPULATION & METHODS

- I recruited mothers with young children (up to age 4) through flier advertisements, snowball sampling, and personal contacts
- 92% living in Monroe County, Indiana (high poverty rate, but includes Bloomington, a well-off university town)

	Sample Characteristics	
	WIC recipients	non-recipients
<i>n</i>	23	29
Mother's age (years) (mean ± SD)	27.1 ± 5.8	30.6 ± 3.1
Infant's age (months) (mean ± SD)	13.3 ± 12.0	8.7 ± 9.4
Ethnicity (%( <i>n</i> ))		
Caucasian	74% (17)	97% (28)
African-American	9% ( 2)	
Hispanic	4% ( 1)	
Asian	9% ( 2)	3% ( 1)
Native American	4% ( 1)	
Ever breastfed	83% (19)	100% (29)
Currently breastfeeding	57% (13)	76% (22)

## ABBREVIATIONS KEY

WIC: The Special Supplemental Nutrition Program for Women, Infants, and Children  
 BFP: breastfeeding food package  
 BABS: Bloomington Area Birth Services (local women's health organization)  
 ILC: independent lactation consultant

## RESULTS

**Hypothesis 1: WIC policy had some influence on women's feeding practices.**

- 32% said receiving the BFP influenced their decisions. Many women said BFP was helpful, but they decided to breastfeed for other reasons. Some women said the BFP made it easier to continue breastfeeding.
- 59% of respondents said the BFP did **not** influence their decisions.
- 23% added they would breastfeed anyway without the extra benefits.
- One woman felt penalized through the packages because she could not breastfeed.

Did WIC breastfeeding food package influence breastfeeding decisions?



**Hypothesis 2: Employment status is not associated with current breastfeeding behavior.**

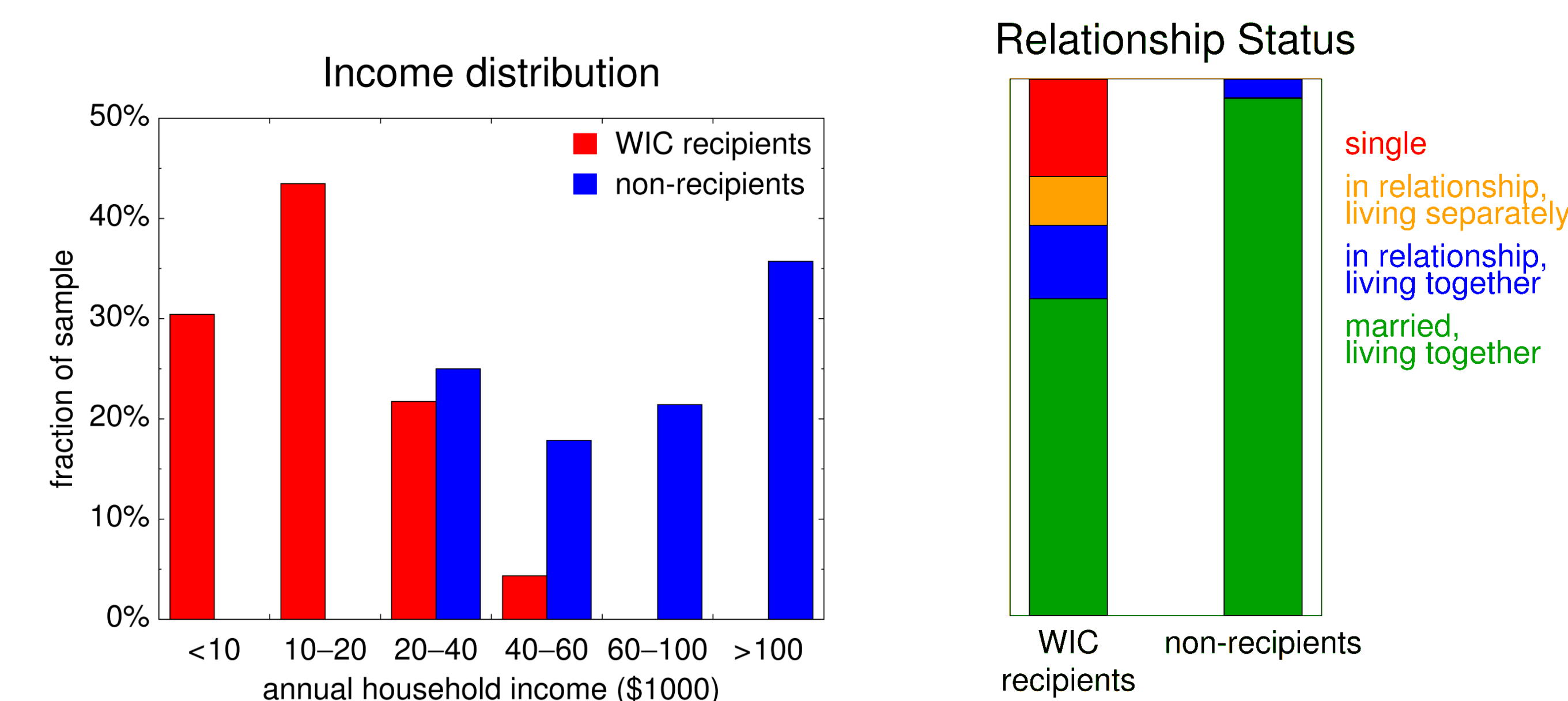
- Helpfulness of employer was not associated with current breastfeeding behavior.
- 46% said employer was helpful, and 29% said employer made no effort.

**Hypothesis 3: WIC recipients and non-recipients differ in breastfeeding initiation rates and sources of instruction/information.**

- WIC recipients (83%) were less likely than non-recipients (100%) to have ever breastfed ( $p=0.019$ ).
- For infants  $\leq 12$  months, there is no association between WIC status and current breastfeeding behavior ( $p=0.133$ ). [For infants  $\leq 6$  months,  $p=0.326$ ]
- Top sources of breastfeeding instruction/information for WIC recipients: hospital (96%), WIC clinic (83%), and BABS. For non-recipients: hospital (79%), BABS, and ILCs ( $p=0.0001$ ).

**Potential confounding factors<sup>1</sup>: Annual household income and marital status.**

- WIC recipients more likely to be single and/or not living with a partner than non-recipients ( $p=0.001$ ). However, among married women, receiving WIC benefits does not influence current breastfeeding behavior ( $p=0.58$ ).
- Participants with annual household income  $< \$40,000$  more likely to be WIC recipients ( $p<0.0001$ ).



## WOMEN'S IMPRESSIONS OF THE FOOD PACKAGE

- "You know, if I was not breastfeeding, there would be a lot less food in this house.'... I still would have done my best to breastfeed without the food package. It just was good to have and it really helped me with my nutrition." –Joanna, 30
- "...I don't necessarily breastfeed for the package or the WIC benefits. I mean they're a great help... [but] if I wanted to stop breastfeeding I wouldn't continue just to get the benefits." – Amanda, 23
- "I wanted to receive as much as I could, especially for him, cuz I know that he receives less baby food and that type of thing [in the formula food package]... So I really did want to try to breastfeed, but unfortunately I couldn't. I mean, it doesn't matter to them [WIC], but. You can only do so much." –Marissa, 21, single first-time mother

## CONCLUSION

- For most women, the BFP did not influence their breastfeeding decisions.** Health and developmental benefits, bonding, and the idea that it's "what's best" were cited as reasons to breastfeed.
- WIC federal policy influenced some women's breastfeeding behavior.**
- BFP benefits do help some women continue to breastfeed for longer** by providing extra economic and nutritional support.
- BFP encouraged some women to breastfeed and it provided support for other mothers who already decided to breastfeed.**
- Most women were positive about WIC and thought it improved their lives.
- Local WIC offices/personnel are important factors in women's experiences with WIC.
- The **mother's employment status did not have a significant association with current breastfeeding behavior**, contrary to the findings of other studies.<sup>2,3,4</sup> Perhaps this is because Bloomington is "breastfeeding friendly" with many community resources.
- WIC recipients were less likely than non-recipients to have ever breastfed but the reasons for this difference are unclear.**



Image 1. Photograph of WIC participants and consultant in a WIC office from the USDA's FNS website ([www.fns.usda.gov/wic](http://www.fns.usda.gov/wic)).

## FURTHER DIRECTIONS FOR RESEARCH

- Does perceived support (from the community, family, medical professionals, etc.) influence breastfeeding outcomes for women at nutritional risk?
- In order to study the importance of different kinds of support for a woman's success in breastfeeding, I would need to repeat this study in other counties and communities that are less supportive of breastfeeding.
- Why do WIC recipients and non-recipients differ in their sources for instruction/information on breastfeeding? A higher % of WIC recipients named the hospital as a source than non-recipients. The hospital lactation consultants are available to every patient, so this disparity is particularly intriguing.
- I also interviewed women about their personal difficulties with breastfeeding. Further analysis of these interviews might identify unique barriers to breastfeeding for WIC recipients and improve WIC policy.

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