THE EXPANSION OF WIC ELIGIBILITY AND ENROLLMENT

Good Intentions, Uncontrolled Local Discretion, and Compliant Federal Officials

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I. Summary and Recommendations

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is supposed to provide "free supplemental food packages, nutrition counseling, and health and social service referrals"[1] to low-income mothers and young children who are at nutritional risk. Its monthly food packages contain such basics as milk (or cheese), adult cereal, fruit juice, eggs, and peanut butter (or an equivalent legume product), worth on average about $40 per person/per month for women and children. Infants also receive iron-fortified formula which brings the value of their package to about $110 per month. The nutritional counseling is normally about one fifteen-minute session every three months.[2]

In 2007, WIC was a $7.3 billion program (about $5.4 billion in federal funding and about $1.9 billion through rebates from infant formula manufacturers)[3] that served about 8.3 million people (including 2.2 million infants, 4.0 million children ages one through four, and 2.1 million pregnant and postpartum mothers). Program expenditures, however, have risen since then. The federal FY 2009 WIC appropriation, alone, is $6.66 billion.[4] (Unless otherwise indicated, all dollar amounts in this paper are in 2007 dollars.)

Officially, eligibility for WIC is based on income at or below 185 percent of the federal poverty line or the receipt of Medicaid, cash assistance under the Temporary Assistance for Needy Families (TANF) program, or food stamps. For the period of July 1, 2008 to June 30, 2009 (hereinafter, "2008/2009"),[5] that was $32,560 for a family of three, and $45,880 for a

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[1]U.S. Department of Agriculture, Economic Research Service, *The Food Assistance Landscape: March 2003* (Washington, DC: USDA, March 2003), 2, http://www.ers.usda.gov/publications/fanrr28-2/fanrr28-2.pdf (accessed August 23, 2005).

[2]Douglas J. Besharov and Peter Germanis, *Rethinking WIC: An Evaluation of the Women, Infants, and Children Program* (Washington, DC: The AEI Press, 2001), 14–15; Carol Olander, *Nutrition Education and the Role of Dosage* (Alexandria, VA: USDA, June 2007), 3, http://www.fns.usda.gov/oane/MENU/Published/NutritionEducation/Files/LitReview_Dosage.pdf (accessed July 19, 2007), stating: "Control group participants received the usual 10 minutes of dietary counseling during bimonthly clinic visits to pick up WIC vouchers." See also U.S. General Accounting Office, *Nutrition Education: USDA Provides Multiple Services through Multiple Programs, but Stronger Linkages among Efforts are Needed* (Washington, DC: GAO, April 2004), 29, http://www.fns.usda.gov/wic/resources/MultiplePrograms.pdf (accessed March 12, 2008), stating: "The average WIC recipient received approximately less than 20 minutes of nutrition education twice every six months."

[3]Because of rounding, the total exceeds the sum of the subtotals.

[4]*Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009*, P.L. 110-329, 110th Cong. 2nd Sess., http://thomas.loc.gov/cgi-bin/query/z?c110:H.R.2638.enr: (accessed October 3, 2008).

[5]Although the Department of Health and Human Services (HHS) issues the poverty guidelines in either late January or early February for immediate application, individual programs are allowed to choose a later effective date. In the case of the WIC program, the new poverty guidelines take effect at the beginning of July and remain in effect until the end of June of the next year. See U.S. Department of Health and Human Services, "Frequently Asked Questions Related to the Poverty Guidelines and Poverty," http://aspe.hhs.gov/poverty/faq.shtml (accessed June 24, 2008).

family of five.[6] This relatively high threshold is presumably meant to be mitigated by the additional requirement that applicants also be found to be at "nutritional risk." Over the years, however, the criteria for determining nutritional risk have been watered down and now just about all WIC applicants are deemed at risk.

Given WIC's purpose, benefit package, and putative eligibility, one would assume that its benefits would be targeted to the most needful Americans. But, as this report documents, various formal and informal changes have liberalized these criteria so that, in 2006, about half of all American infants were on WIC, and about 41 percent of postpartum and breastfeeding mothers received WIC benefits. According to the Census Bureau's Current Population Survey (CPS), in 2006, about 18 percent of WIC recipients lived in families with annual incomes above WIC's putative income cap of 185 percent of poverty, and about 5 percent in families with annual incomes over 300 percent of poverty—about 1.5 million and 400,000 people, respectively.

Expanded eligibility and enrollment

The dramatic increases in eligibility and enrollment are documented in USDA estimates of the number of WIC eligibles. As recently as its estimates for 2003, the USDA had put eligibility at about 33 percent of the relevant demographic categories, including 40 percent of infants, 31 percent of children one to four, and 34 percent of pregnant and postpartum women (see table 7).

Starting in the late 1990s, however, observers noted that the number of mothers and infants actually on WIC was higher than the USDA's eligibility counts. For example, according to the USDA's original methodology, in 2003, about 93 percent of the eligible population was participating in WIC, including about 132 percent of eligible infants and about 135 percent of eligible postpartum and breastfeeding mothers (see table 9).

Some took these over-100 percent coverage rates as an indication that the program was enrolling many ineligible children and mothers. Others took issue with the estimates themselves, arguing that the USDA's methodology underestimated the number of eligibles, thereby overestimating coverage rates. In response, the USDA commissioned various studies that, based as they were on past formal and informal expansions of eligibility criteria, raised eligibility estimates. (The USDA says that this was a "correction," which we take issue with because of their overbreadth. But either way, the estimated number of WIC-eligible persons increased substantially.)

As a result, subsequent USDA estimates calculated much higher eligibility rates. Its most

[6]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Income Eligibility Guidelines 2008-2009," http://www.fns.usda.gov/wic/howtoapply/incomeguidelines.htm (accessed June 24, 2008).

recent estimate, for 2003, placed eligibility at 54 percent of the relevant demographic categories, including 63 percent of infants, 53 percent of children one to four, and 49 percent of pregnant and postpartum women (see table 7). Our estimates are even higher. If one assumes that WIC agencies do not count all household income (just the subfamily's),[7] in 2006, *between 74 and 81 percent of all American infants would be WIC eligible*, with similar increases for WIC's other demographic categories. Moreover, the percent eligible could soon rise further if states continue to raise Medicaid income caps, which would automatically increase the number of adjunctively eligible families (see table 12 and figure 1).

One can see the impact of these expansions of eligibility on WIC's rising enrollment as a percent of all people in WIC-eligible demographic categories between 1977 and 2006:

- In 1977, about 4 percent of all people in eligible demographic categories received WIC benefits, including about 6 percent of infants, about 4 percent of all children ages one to four, about 4 percent of all pregnant women, and about 4 percent of all postpartum or breastfeeding women.

- In 1992, about 22 percent of all people in eligible demographic categories received WIC benefits, including about 41 percent of all infants, about 16 percent of all children ages one to four, about 23 percent of all pregnant women, and about 21 percent of all postpartum or breastfeeding women.

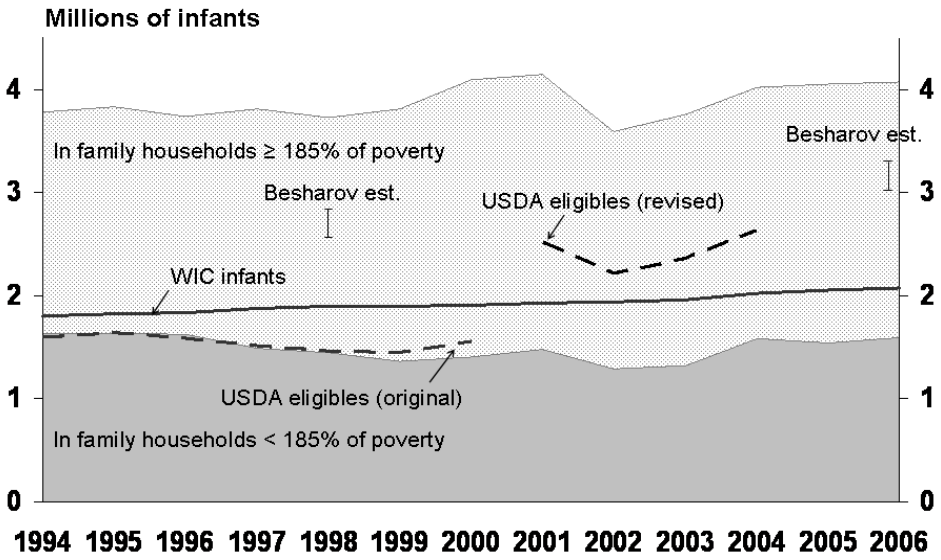
- And, in 2006, about 31 percent of all people in eligible demographic categories received WIC benefits, including about 51 percent of infants,[8] about 25 percent of all children ages one to four, about 30 percent of all pregnant women, and about 41 percent of all postpartum or breastfeeding women (see table 6).

[7]For definitions of "household" and "subfamily," see Box 2.

[8]For our estimated number of infants, we follow FNS and use the CPS estimate as opposed to national vital statistics. We do this because the CPS provides income data form families and households with infants. The difference between the CPS estimates and the national vital statistics is about 2 percentage points. See Joyce A. Martin, Brady E. Hamilton, Paul D. Sutton, Stephanie J. Ventura, Fay Menacker, and Sharon Kirmeyer, "Births: Final Data for 2004" *National Vital Statistics* 55, no.1 (September 29, 2006), http://www.cdc.gov/nchs/data/nvsr/nvsr55/nvsr55_01.pdf (accessed July 10, 2008); and Brady E. Hamilton, Joyce A. Martin, and Stephanie J. Ventura, "Births: Preliminary Data from 2006" *National Vital Statistics* 56, no.7 (December 5, 2007), http://www.cdc.gov/nchs/data/nvsr/nvsr56/nv sr56_07.pdf (accessed July 10, 2008).

Figure 1

WIC Recipient Infants and Changing Definitions of Eligibility



Sources: For total population of infants Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to author, June 14, 2007 and U.S. Census Bureau, DataFerrett, Current Population Survey, Annual Social and Economic (ASEC) Supplement, 2005–2007; for number of infants eligible for WIC, Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to author, June 14, 2007, and Linda Giannarelli and Sandi Nelson, *How Many Women, Infants, and Children are Eligible for WIC? Estimates from the CPS and SIPP* (Washington, DC: The Urban Institute, March 2006); for number of infants receiving WIC, Jay Hirschman (U.S. Department of Agriculture, Food and Nutrition Service), e-mail message to Gordon Green, April 11, 2006, U.S. Department of Agriculture, "WIC Program Participation and Costs," http://www.fns.usda.gov/pd/wisummary.htm (accessed March 12, 2008), and "Special Supplemental Nutrition Program for Women, Infants and Children (WIC)," http://www.fns.usda.gov/pd/37WIC_Monthly.htm (accessed March 12, 2008); for number of infants in family households below 185 percent of the poverty level, UMD/AEI Poverty Tabulator: Software for Examining Historical Trends and Alternative Measurement Definitions, version 4.6.3, http://www.aeimirror.org/poverty (accessed March 12, 2008).
Note: The Besharov estimates are described in Appendix A. For 1994–2003, the total population of infants is adjusted for CPS miscounts as recommended by NRC. For 2004–2006, the total population of infants is unadjusted.

These high rates of eligibility and enrollment are partly explained by the fact that families with young children have lower incomes than the general population, and are an increasing portion of the population. But enrollment is also rising when measured as a percentage of the families with annual incomes below 185 percent of poverty. The number of infants in the program is especially telling. (See figure 2).

- In 1977, the number of WIC recipients represented only about 11 percent of all categorically eligible people in families with annual incomes below 185 percent of poverty. The number of infants on WIC represented only about 17 percent of the infants in families with annual incomes below 185 percent of poverty;

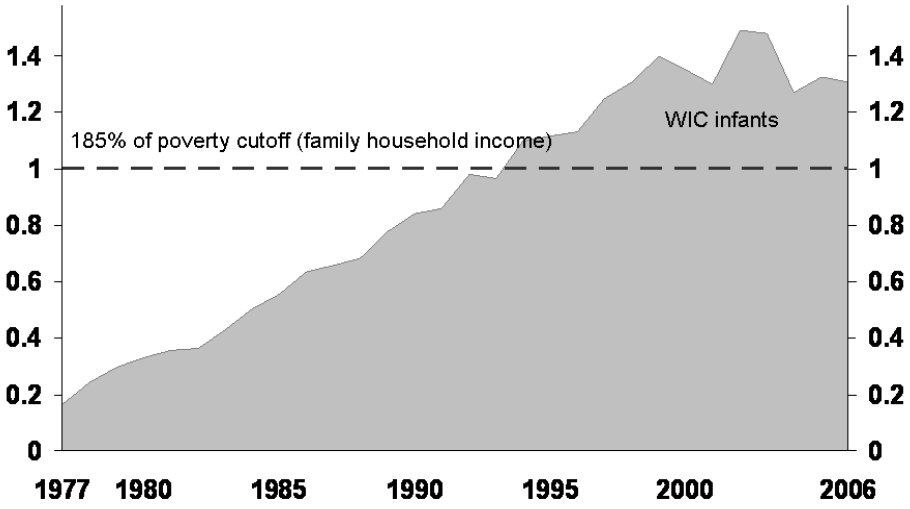
- In 1992, WIC recipients represented about 51 percent of all categorically eligible people in families with annual incomes below 185 percent of poverty. WIC infants about equaled (96 percent) those below 185 percent of poverty; and

- In 2006, WIC recipients represented about 80 percent of all categorically eligible people in families with annual incomes below 185 percent of poverty. *There were 25 percent more WIC infants than infants below 185 percent of poverty (31 percent if family household income is the measure).*

In fact, according to the Census Bureau's Survey of Income and Program Participation (SIPP), in 2004, about 6 percent of WIC infants lived in families with annual incomes above 300 percent of poverty (for a family of three, about $52,808).

Figure 2

Ratio of WIC Infants to Infants in Households < 185% of Annual Poverty



Sources: Authors' calculation based on Jay Hirschman (U.S. Department of Agriculture, Food and Nutrition Service), e-mail message to Gordon Green, April 11, 2006, U.S. Department of Agriculture, "WIC Program Participation and Costs," http://www.fns.usda.gov/pd/wisummary.htm (accessed March 12, 2008); "Special Supplemental Nutrition Program for Women, Infants and Children (WIC)," http://www.fns.usda.gov/pd/37WIC_Monthly.htm (accessed March 12, 2008); and UMD/AEI Poverty Tabulator: Software for Examining Historical Trends and Alternative Measurement Definitions, version 4.6.3, http://www.aeimirror.org/poverty (accessed March 12, 2008).

Definitional liberalization

This paper is part of a multi-part study by the author and his colleagues that explores how income eligibility is determined in selected federal means-tested programs. The first paper in this series (on Head Start),[9] found that the malleability of current definitions of "income" make it easy for staff to expand program eligibility—with little political scrutiny or public debate—by informally adopting more liberal interpretations of existing rules.

This paper similarly explains WIC's expanded eligibility and enrollment as the products of liberalized interpretations of eligibility rules by WIC staff and officials at all levels of government. It also identifies the factors behind this liberalization and makes recommendations about what to do about them. (In the WIC program, there is the added vagueness of the "nutritional risk" requirement, which has been interpreted away as discussed below.)

The major definitional elements that were liberalized in WIC are similar to those loosened in other means-tested programs:

- **Subfamily income vs. shared household income.** To determine income eligibility, WIC agencies are supposed to count the income of the entire household—if it is shared. Many agencies do not do so, however, and instead count the income of only the nuclear family, leaving out other sources of household income—for example, from grandparents, siblings, and boyfriends. The failure to count all of the household's income can, by itself, expand eligibility over the base of those with annual incomes below 185 percent of poverty by about 20 percent.[10]

- **Current income vs. income that "more accurately reflects the family's status."** Because incomes can rise and fall throughout the year, WIC agencies are allowed to choose among annual, monthly, or weekly income. USDA regulations allow (but do not mandate) states to require that agencies select the period that "more accurately reflects the family's status."[11] (The one exception, and it is substantial, is lower current income caused

[9]Douglas J. Besharov and Jeffrey S. Morrow, "Nonpoor Children in Head Start," *Journal of Policy Analysis and Management* 26, no. 3 (2007): 613–631, http://www.welfareacademy.org/pubs/childcare_edu/nonpoor_children_in_head_start.pdf (accessed October 12, 2008).

[10]This is an independent effect, and could be smaller when present in combination with the other practices discussed in this paper.

[11]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(d)(2)(i), (2007): 331, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed July 16, 2007).

by unemployment.)[12] Most WIC agencies, however, simply seem to use the lowest income, whichever it is, in order to maximize eligibility. This failure to use the most appropriate income period can, by itself, expand eligibility over the base of those with annual incomes below 185 percent of poverty by about 20 percent.[13]

- **Certification periods vs. income changes (especially during pregnancy).** Once found income-eligible, successful applicants do not have their income eligibility recertified for six months or more (up to one year for infants)—even if incomes rise during that "certification period" which would make them otherwise ineligible. WIC's six- and twelve-month certification periods can, by themselves, expand eligibility over the base of those with annual incomes below 185 percent of poverty by as much as 30 percent.[14]

- **Expanded adjunctive eligibility vs. income caps.** Eligibility for WIC is also established adjunctively (in some other programs called "categorically"), that is, it is automatically granted to members of families who are receiving[15] food stamps, Medicaid, or TANF (if they can "provide documentation of receipt of assistance").[16] When this provision was added to the law, income eligibility for these programs was set below 185 percent of poverty. Hence, the original purpose of adjunctive eligibility was not to expand eligibility,

[12]See U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(d)(2)(I), (2008): 354, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed July 10, 2008), stating: "However, persons from families with adult members who are unemployed shall be eligible based on income during the period of unemployment if the loss of income causes the current rate of income to be less than the State or local agency's income guidelines for Program eligibility."

[13]This is an independent effect, and could be smaller when present in combination with the other practices discussed in this paper.

[14]This is an independent effect, and could be smaller when present in combination with the other practices discussed in this paper.

[15]Although the statute uses the word "receiving," WIC regulations do not require applicants to actually be receiving assistance, as long as they have been "certified eligible to receive assistance" under the programs. U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7 (2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed June 25, 2007). The certification is made by the Food Stamp, TANF, or Medicaid programs, not WIC. Zoë Neuberger, Center on Budget and Policy Priorities, e-mail message to author, June 29, 2007. Presumably, the difference is de minimus, and most researchers estimate adjunctive eligibility on the basis of being "enrolled in" or being "participants" in the food stamp, Medicaid, or TANF programs. See Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 50; Marianne Bitler and Janet Currie, "Medicaid at Birth, WIC Take-Up, and Children's Outcomes" (discussion paper, Institute for Research on Poverty, University of Wisconsin-Madison, Madison, WI, August 2004), 2, http://www.irp.wisc.edu/publications/dps/pdfs/dp128604.pdf (accessed June 25, 2007).

[16]*Child Nutrition Act of 1966*, as amended through Public Law 109–85, 109th Cong., 1st sess. (October 4, 2005), sec. 17(d), http://agriculture.senate.gov/Legislation/Compilations/FNS/CNA66.pdf (accessed June 25, 2007).

but simply to facilitate the enrollment process. However, recent expansions of Medicaid and SCHIP-funded Medicaid expansions have begun to raise income limits for those programs to as high as 300 percent of poverty, making adjunctive eligibility a potential source of substantially greater WIC eligibility. Under current Medicaid eligibility rules, adjunctive eligibility can, by itself, expand eligibility over the base of those with annual incomes below 185 percent of poverty by as much as 35 percent. And, barring legislative change, there is no limit to how much WIC eligibility can expand—via further expansions of Medicaid and SCHIP.

- **Nutritional risk assumed**. In addition to being income-eligible or adjunctively eligible, WIC applicants are supposed to be at "nutritional risk." It appears, however, that this proviso has little practical impact on eligibility determinations. In a widely noted practice, WIC agencies find almost all applicants to be at nutritional risk. The failure to assess actual nutritional risk can, by itself, expand eligibility by as much as 25 percent.[17]

The USDA's original methodology for estimating WIC eligibility was surely too constricted, and some of the changes made were long overdue. But overall, its revised methodology represents a capitulation to the definitional liberalizations that have occurred at the program level. It legitimates past expansions and sets the groundwork for future ones.

Poor targeting and horizontal inequity

Why should we care about WIC's expansion beyond its putative income limit? Certainly, 185 percent of poverty is not a magic line. Those just above the line are not significantly better off than those just below it. But the failure to respect the spirit of this statutory benchmark has worsened WIC's already poor targeting. WIC is not simply (some would say not primarily) a supplemental food program that provides the equivalent of income support in the way of food stuffs; its nutritional counseling services are widely cited as a major reason for the program.

Even at 185 percent of poverty, WIC is already generously targeted for a supplemental food and nutritional counseling program: $32,560 for a family of three and $45,880 for a family of five.[18] Presumably, WIC's higher income threshold was meant to be moderated by the

[17]This is an independent effect, and could be smaller when present in combination with the other practices discussed in this paper.

[18]Throughout this paper, we use as the income unit "family income" [that is, the income of "a group of two people or more (one of whom is the householder) related by birth, marriage, or adoption and residing together"], but, as we point out in relevant places, WIC eligibility is keyed to "family household" income [that is, "a household maintained by a householder who is in a family, and includes any unrelated people (unrelated subfamily members and/or secondary individuals) who may be residing there"], which, at the median, is about 2 percent higher. See U.S. Census Bureau, "Current Population Survey (CPS) – Definitions and Explanations" (Washington, DC: U.S. Census Bureau, January 20, 2004), http://www.census.gov/population/www/cps/cpsdef.html (accessed November 14, 2007). Author's calculations from Carmen DeNavas-Watt, Bernadette D. Proctor, and Jessica C. Smith, *Income, Poverty,*

requirement that applicants also be at nutritional risk, a restriction that turns out to be meaningless as applied by local grantees.

Because of automatic adjunctive eligibility, in five states, *already*, WIC eligibility for infants (and in four states for children) reaches up to families with annual incomes up to 300 percent of poverty (about $52,880 for a family of three, and $74,400 for a family of five), compared to other states without Medicaid expansions where the income cap remains at only 185 percent of poverty (about $32,600 for a family of three, and $45,900 for a family of five).

According to the Current Population Survey (CPS), in 2006, only about 48 percent of WIC participants had *annual* family incomes at or below poverty, about 23 percent had annual incomes between 100 and 150 percent of poverty, only about 11 percent had annual incomes between 150 and 185 percent of poverty, and about 18 percent had annual incomes above 185 percent of poverty—about 15 percent had annual incomes between 200 and 300 percent of poverty and about 5 percent had annual incomes over 300 percent of poverty.[19]

The way in which eligibility has been liberalized is deeply unfair to those families whose incomes are just above 185 percent of poverty. The three main factors that have raised eligibility do not simply increase the level of WIC's income cap—they leapfrog eligibility to families with significantly higher incomes. Two examples illustrate how large can be this *horizontal inequity*:

- Because total family income is not counted, in 2004, 37 percent of WIC subfamilies with infants living with other related persons had monthly family incomes at or above 200 percent of poverty; 18 percent had annual incomes between 200 percent and 299 percent of poverty, and 19 percent had annual incomes at or above 300 percent of poverty.[20]

- Because only current income is counted, WIC ignores the *higher*, long-term (and truer) income of families in which the mother takes time off from work to have a baby. In the 1990s, an additional 47 to 74 percent of pregnant women became eligible for this reason

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and Health Insurance Coverage in the United States: 2007, Current Population Reports (Washington, DC: U.S. Census Bureau, August 2008), http://www.census.gov/prod/2008pubs/p60-235.pdf (accessed November 17, 2008); and U.S. Census Bureau, "Historical Income Tables—Families: Table F-6. Regions--Families (All Races) by Median and Mean Income: 1953 to 2007," http://www.census.gov/hhes/www/income/histinc/f06AR.html (accessed November 17, 2008).

[19]Author's calculations based on U.S. Census Bureau, DataFerrett, Current Population Survey, Annual Social and Economic (ASEC) Supplement, 2001-2006; Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1139–1179, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008).

[20]Richard Bavier, e-mail message to author, April 7, 2008.

(between about 350,000 and 460,000 women).[21] According to Gordon, Lewis and Radbill, these newly eligible women "were more educated, were more likely to live with the father, were more likely to be white, and had fewer children than those who were income eligible during pregnancy."[22]

The foregoing ignores the long-standing unfairness that results from ignoring various forms of cash and noncash assistance in determining income.[23] This includes, for example, cash assistance such as the Earned Income Tax Credit (an average of more than $1,800 per household) and noncash assistance such as food stamps (an average of more than $2,500 per household) and housing assistance (an average of about $6,400 per household).[24] Most of these programs have almost universal coverage, so that the unfairness is somewhat limited. Housing assistance, however, reaches less than one third portion of these eligible,[25] so that its beneficiaries are much better off than some families denied WIC because their incomes are slightly above 185 percent of poverty.

More fundamentally, this kind of hidden and distorting expansion of eligibility—whether in WIC or any other means-tested programs—undercuts sound program planning. The addition of so many somewhat better-off families makes WIC less able to focus on the deep-seated nutritional and social needs of the most disadvantaged families. Instead of enriching the services WIC can deliver to those below the income threshold, the funds that have been added to the program were used to expand coverage to higher income families.

Explanations

[21]Anne Gordon, Kimball Lewis, and Larry Radbill, *Income Variability Among Families with Pregnant Women, Infants, or Young Children* (Princeton, NJ: Mathematica Policy Research, Inc., January 1997); and Aaron S. Yelowitz, "Income Variability and WIC Eligibility: Evidence from the SIPP," (working paper, National Bureau of Economic Research, 2002).

[22]Anne Gordon, Kimball Lewis, and Larry Radbill, *Income Variability Among Families with Pregnant Women, Infants, or Young Children* (Princeton, NJ: Mathematica Policy Research, Inc., January 1997), xv.

[23]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(d)(2), (2008): 354, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed November 16, 2008).

[24]Douglas J. Besharov, "Two Cheers for American Welfare Reform—Lessons Learned, Questions Raised, Next Steps," in *When Hassle Means Help: The International Lessons of Conditional Welfare*, ed. Lawrence Kay and Oliver Marc Hartwich (London: Policy Exchange, 2008), 36–46, http://www.welfareacademy.org/pubs/welfare/twocheers_pe08.pdf (accessed November 17, 2008).

[25]G. Thomas Kingsley, *Federal Housing Assistance and Welfare Reform: Unchartered Territory*, New Federalism: Issues and Options for States series (Washington, DC: Urban Institute, December 1997), http://www.urban.org/publications/308023.html (accessed November 17, 2008).

The income-related elements of WIC eligibility are roughly the same as those in most other means-tested programs. But, without a formal change in eligibility rules, not all means-tested programs have experienced such large increases in eligibility and enrollment. Several factors seem to account for WIC's expansion.

(1) WIC's status as a popular but little understood program largely insulated from political control. WIC is a popular program, because it is widely believed to "work." After all, it is widely, if inaccurately, claimed that every dollar of WIC spending saves $3 (or more!) in medical and other costs.[26] Never mind that, whatever the original validity of the claim, it is certainly less true now that WIC has expanded to serve so many less needy families.

WIC's popularity makes it difficult for politicians of either party to criticize—or control. Why else did the Bush Administration not try to reign in the program? And why did it, instead, preside over the 2003 recodification of the program's eligibility criteria that increased the total number of WIC eligibles by about 62 percent—roughly 5.1 million additional mothers, infants, and children?[27] It is one thing to fear a backlash for cutting a popular program like WIC; it is quite another to shy away from placing reasonable controls on eligibility criteria, especially after the program has grown to cover about half of all American infants—at the cost of denying enhanced services (such as more extensive nutritional and anti-obesity counseling) for the neediest families. (The only other possible explanation for the Bush Administration's failure to limit the growth in WIC eligibility is that senior staff did not understand what was happening.)

(2) A devoted staff eager to serve as many people as possible. Most WIC staff are strong believers in the program and, hence, are understandably eager to provide benefits to as many families as possible. Prevailing practice seems to reflect the belief that enrollment in WIC should be facilitated because the program is beneficial—even for families that do not meet its eligibility criteria.

When the findings in this paper concerning the incomes of WIC families are presented to WIC supporters, the reaction is often to deny that they pose a problem. In fact, this author has been scolded many times by WIC staff when he argued for targeting of benefits. Some staff even argue that all Americans could benefit from the program. (They mean WIC's counseling, which, however useful, is, for infants at least, overshadowed by the food package that includes free baby formula.) Hence, WIC staffers should not be expected to enforce eligibility rules they deem overly restrictive. Their natural inclination is to sign up families until funding runs out.

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[26]For an analysis of these claims, see Douglas J. Besharov and Peter Germanis, "Is WIC as Good as They Say?" *The Public Interest* 134 (Winter 1999): 21–36, http://web.ebscohost.com/ehost/pdf?vid=3&hid=109&sid=24d10525-83a9-443d-ae54-b1425d5a0246%40sessionmgr104 (accessed October 13, 2008).

[27]See Table 7, "WIC *Eligibles* as a Percent of the Total Population in that Category."

(3) The easy availability of funds to support expansions (especially if they come at little or no cost to the local program or the Congress). Many other means-tested programs also have deeply committed staffs and are politically popular, of course. Why did WIC expand when some others did not? The concurrence of program expansions with rising infant formula rebates strongly suggests that the rebates fed the process. The infant formula rebate program has provided billions of dollars to WIC with little legislative oversight. In 1990, their first year, the rebates provided WIC with about $808 million in additional funds, enough to pay benefits for about 880,000 additional recipients. By 1998, the rebates had grown to about $1.72 billion, enough for more than an additional 1.9 million recipients. In 2007, the rebates totaled about $1.9 billion, enough to pay benefits to about 2.2 million recipients, roughly one-quarter of the program's entire caseload and total spending.[28]

Coming to the program outside the normal appropriations process, these billions of dollars in rebates have been automatically applied under WIC's eligibility and funding rules— without serious consideration of whether the additional funds should be used to expand program benefits or services, rather than simply adding more recipients. (In fact, the applicable rules require that these additional moneys be used just as if they were appropriated funds, which means that they can only be used to expand program coverage, not to expand counseling services or to save state funds.)[29]

As a result, states have been forced to use these savings to expand participation, generally to those with higher incomes (and lower nutritional risk), rather than to improve the program. There are legitimate reasons for placing limits on the things on which a program as large and diverse as WIC can spend money. But forcing states to add more and more families to the program when the program needs to provide greater benefits to the neediest families is not one of them.

Put simply, the increased funding available through rebates enabled federal, state, and local WIC officials (as well as program operators) to make substantially more mothers and children eligible for program benefits—painlessly, that is, without needing to find additional funds to cover them. Hence, as more funds became available, it was predictable that they would enroll as many families as possible, even if it meant relaxing income-eligibility standards.[30]

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[28]Edward Harper, U.S. Department of Agriculture, Food and Nutrition Service, Office of Analysis, Nutrition, and Evaluation, e-mail message to Douglas Call, April 22, 2008.

[29]The percentages of program funds that states can spend on both the WIC food packages and the national average per participant grants (AGP) for administrative costs are limited by law and regulation, so that additional funds must go to additional recipients. [*Child Nutrition Act of 1966* 17(h)(1)(B) and "Special Supplemental Nutrition Program for Women, Infants, and Children" *Code of Federal Regulations* 7, sec. 246.]

[30]See, for example, Douglas J. Besharov and Peter Germanis, *Rethinking WIC: An Evaluation of the Women, Infants, and Children Program* (Washington, DC: The AEI Press, 2001), 22, stating: "Moreover, as program funding has increased, according to some local WIC staff, even income testing seems to have become less rigorous, with many

(4) Minimal state or local interest in controlling costs, either through an audit process or through federal/state cost sharing. This is not a unique phenomenon, of course. Separating the functions of determining eligibility from paying program costs, common to many federal/state/local programs, almost always creates a "moral hazard," that is, decision makers have no incentive to cut costs unless they face effective eligibility monitoring or a rigorously enforced budget limit.

The federal Food Stamp Program, for example, has the same separation between decider and payer. It seeks to deal with this problem through its Quality Control (QC) system, under which state agencies (with federal oversight) continuously sample food stamp recipients to check for errors in eligibility and benefits. The federal government publishes annual error rates for eligibility and benefits, and sanctions states with error rates above a previously defined "tolerance level."[31] The sanctions can be substantial.[32]

The federal school meals programs also have a regular audit process. Local school districts (with state and federal oversight) sample families with children receiving free or reduced school lunch or breakfast where the families have incomes that are considered "error-prone" or within a defined amount of the eligibility threshold.[33] In the 2005-2006 school year, the error rate for the National School Lunch program was over 16 percent and the error rate for the National School Breakfast program was almost 25 percent.[34] In both the Food Stamp and federal school meals programs, recipients who are found to have received benefits in error during the audit

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participants having incomes over eligibility limits."

[31]U.S. House of Representatives, Committee on Ways and Means, *2004 Green Book: Background Material and Data on the Programs Within the Jurisdiction of the Committee on Ways and Means* (Washington, DC: GPO, March 2004).

[32]They are calculated by multiplying the state's food stamp expenditures by "10 percent of the amount by which the State's combined error rate exceeds 6 percent." U.S. House of Representatives, Committee on Ways and Means, *2004 Green Book: Background Material and Data on the Programs Within the Jurisdiction of the Committee on Ways and Means* (Washington, DC: GPO, March 2004), 15-21.

[33]*Richard B. Russell National School Lunch Act*, as amended through Public Law 109–97, 109th Cong., 1st sess. (November 10, 2005), Sec. 9(D), http://www.fns.usda.gov/cnd/Governance/Legislation/Historical/NSLA-Nov-10-2005.pdf (accessed April 29, 2008).

[34]U.S. Department of Agriculture, *FY 2007 Performance and Accountability Review* (Washington, DC: USDA, 2008). See also Michael Ponza, Philip Gleason, Lara Hulsey, and Quinn Moore, *Who Picks Up the Tab? Reducing Payment Errors in School Nutrition Programs* (Princeton, NJ: Mathematica, February 2009), 2, http://www.mathematica-mpr.com/publications/pdfs/nutrition/reducepayerrors09.pdf reporting that, for the 2005-2006 school year, the overall estimated certification error rate for the school meals program was 22.5 percent, with erroneous payments of more than $900 million. The authors report, "Overcertification, at 15 percent, was more common than undercertification, at 7.5 percent. In other words, about two-thirds of certification errors resulted in students being certified for a higher level of benefits than that for which they were eligible."

process may have their benefits reduced or eliminated. However, unlike the Food Stamp program, the school meals programs do not impose financial sanctions on school districts that have high error rates.[35]

There is no similarly frequent audit process for WIC. Instead, every ten years, the USDA conducts a WIC income verification study that measures WIC error rates. It applies, however, the eligibility rules of the state or local WIC agencies—many of which reflect the liberalizations described in this paper.[36] In 1988, the estimated error rate for WIC was 5.7 percent and, in 1998, the estimated WIC error rate was 4.5 percent.[37] (Those who were found to be receiving benefits in error do not appear to have had their benefits terminated or reduced.)[38] The current income verification study will collect data for 2008 at the end of the year and is scheduled to report 2008 error rates in 2009.[39]

Budget pressures

Until recently, rising rebates from infant formula manufacturers enabled WIC to expand without major increases in appropriations. But now, rebates are falling at the same time that costs for food and infant formula and as well as enrollment are rising—thereby raising the cost of WIC to the federal government. Since 2006, WIC appropriations have risen by about 22 percent, going from $5.46 billion to about $6.66 billion.[40]

Falling rebates. As described below, rebates from infant formula manufacturers were a

[35]Kathleen FitzGerald, Congressional Budget Office, e-mail message to author, June 4, 2008.

[36]See Robert G. St. Pierre and Michael J. Puma, "Controlling Federal Expenditures in the National School Lunch Program: The Relationship Between Changes in Household Eligibility and Federal Policy," *Journal of Policy Analysis and Management* vol. 11, no. 1 (Winter 1992): 42–57, http://web.ebscohost.com/ehost/pdf?vid=3&hid=109&sid=743db2cf-857a-4e03-8e23-17eec576ed20%40sessionmgr102 (accessed October 9, 2008).

[37]Nancy Cole, David Hoaglin, and John Kirlin, *National Survey of WIC Participants* (Washington, DC: USDA, October 2001), http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/WICSurvey.pdf (accessed April 4, 2008).

[38]Kathleen FitzGerald, Congressional Budget Office, e-mail message to author, June 4, 2008.

[39]U.S. Department of Agriculture, *FY 2007 Performance and Accountability Report* (Washington, DC: USDA, 2008), http://www.ocfo.usda.gov/usdarpt/pdf/par2007.pdf (accessed April 4, 2008).

[40]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program and Participation Costs," http://www.fns.usda.gov/pd/wisummary.htm (accessed October 9, 2008); and *Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009*, P.L. 110-329, 110th Cong. 2nd Sess., http://thomas.loc.gov/cgi-bin/query/z?c110:H.R.2638.enr: (accessed October 3, 2008).

major source of funds for the program's expansion in the early 1990s (see table 3).[41] In 2007, rebates from infant formula manufacturers amounted to about $1.9 billion,[42] almost 26 percent of total WIC expenditures. After adjusting for inflation, however, total rebate revenues have not much increased since around 1997 (see table 3).

In fact, per-can rebates have been falling. (The total has remained about constant because continuing increases in enrollment have led to the purchase of more formula.) Between 2002 and 2005, for example, the average per-can cost in those states that negotiated new contracts with manufacturers rose more than fourfold.[43] Nationwide, the average amount states pay per can rose 40 percent between 2002 and 2005, a trend that is likely to continue as contracts expire and more states negotiate new contracts.

Higher food costs. Average monthly food costs per person have also increased 8 percent over the first ten months of FY 2008, from $42.01 in October to $45.40 in July.[44] FNS also projected the average monthly food cost per person to be $43.63 in FY 2008 and $45.16 in FY 2009.[45]

Rising enrollment. Enrollment and expenditures are climbing faster than at any time since the early 1990s. As of July 2008, monthly WIC participation had grown to more than 8.9 million, an increase of about 470,000[46] from July 2007[47] and about 400,000 more than anticipated in the

[41]See generally Douglas J. Besharov and Peter Germanis, *Rethinking WIC: An Evaluation of the Women, Infants, and Children Program* (Washington, DC: The AEI Press, 2001).

[42]Edward Harper, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to Douglas Call, April 22, 2008.

[43]U.S. Government Accountability Office, *Food Assistance: FNS Could Take Additional Steps to Contain WIC Infant Formula Costs* (Washington, DC: GAO, March 2006), 17, http://www.gao.gov/new.items/d06380.pdf (accessed July 5, 2007).

[44]U.S. Department of Agriculture, Food and Nutrition Service, "Special Supplemental Nutrition Program for Women, Infants and Children (WIC)," http://www.fns.usda.gov/pd/37WIC_Monthly.htm (accessed October 3, 2008).

[45]U.S. Department of Agriculture, Food and Nutrition Service, *Special Supplemental Nutrition Program with Women, Infants and Children (WIC): August 2008 Report to Congress* (Alexandria, VA: USDA, August 2008).

[46]U.S. Department of Agriculture, Food and Nutrition Service, "Special Supplemental Nutrition Program for Women, Infants and Children (WIC)," http://www.fns.usda.gov/pd/37WIC_Monthly.htm (accessed October 3, 2008).

[47]U.S. Department of Agriculture, Food and Nutrition Service, *Special Supplemental Nutrition Program with Women, Infants and Children (WIC): August 2008 Report to Congress* (Alexandria, VA: USDA, August 2008).

President's FY 2008 budget.[48] In August 2008, FNS projected WIC average monthly participation to be 8.7 million for FY 2008 and 9.0 million in FY 2009. In a marked departure from the past, about 77 percent of the July 2007/July 2008 increase of 470,000 were children ages one to four (rather than infants).

The increased enrollment of older children points to other factors besides definitional liberalization that are now driving up WIC recipiency:

- *Increasing enrollments in Medicaid and food stamps, in part because of outreach and in part because of a weak economy.* Receiving Medicaid or food stamps makes a family adjunctively eligible for WIC. In addition, during the enrollment process for both program, families are often encouraged to enroll in WIC.

  According to the Congressional Budget Office, between 2002 and 2007, the estimated number of children receiving Medicaid increased from about 23 million to about 29.5 million, an increase of about 28 percent.[49] And between July 2007 and July 2008, the estimated number of food stamp recipients increased from 26.6 million to 29.1 million, an increase of about 9.4 percent.[50]

- *Greater income volatility among low-income families than in the past.* WIC agencies tend to use current income rather than annual income in their eligibility decisions. Because eligibility certification periods span periods after incomes rise, the result is longer spells of WIC recipiency and, hence, higher enrollment rates.

- *A weakening economy.* Declining incomes exacerbate the foregoing factors. In the first six months of 2008, real weekly earnings decreased by three percentage points, and, between 2007 and 2008, the number of the unemployed and under-employed increased by about 23 percent and about 32 percent, respectively.[51]

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[48]U.S. Department of Agriculture, Food and Nutrition Service, *Special Supplemental Nutrition Program with Women, Infants and Children (WIC): August 2008 Report to Congress* (Alexandria, VA: USDA, August 2008).

[49]John Holohan and Bowen Garrett, *Rising Unemployment and Medicaid* (Washington, DC: Urban Institute, October 2001), http://www.urban.org/uploadedPDF/410306_HPOnline_1.pdf (accessed August 17, 2008); and Congressional Budget Office, "Fact Sheet for CBO's March 2008 Baseline: Medicaid," http://www.cbo.gov/budget/factsheets/2008b/medicaidBaseline.pdf (accessed August 17, 2008).

[50]U.S. Department of Agriculture, Food and Nutrition Service, "Food Stamp Program Monthly Data," http://www.fns.usda.gov/pd/34fsmonthly.htm (accessed August 17, 2008).

[51]Richard Bavier, "Remarks at August 25, 2008 AEI Poverty Session" (presentation, American Enterprise Institute, Washington, DC, August 25, 2008). Between July 2007 and July 2008, the number of unemployed persons increased from about 7.1 million to 8.7 million and the number of persons working part time for economic reasons (those who would like to work full time but are working part time because their hours have been reduced or because they are unable to find full time employment) increased from about 4.3 million to about 5.7 million. Bureau of Labor

Total enrollment will undoubtedly continue to rise if the economy continues to weaken. The relaxation of WIC's putative eligibility rules allowed program enrollment to creep up in the good economic times of the 1990s. In the current economic downturn, the number and hence the enrollment of families with annual incomes below 185 percent of poverty will undoubtedly rise—creating more funding pressure on WIC agencies than there would have been if eligibility criteria had not been loosened in earlier good times. Now, as the economy slows, and more families have lower incomes, WIC agencies are straining to meet the financial costs of serving so many additional families.

Barring continued infusions of additional funding, the program will have to do a better job managing its eligibility rules. Limiting WIC recipients to those with annual incomes below 185 percent of poverty would very roughly save about $1 billion per year (even after accounting for reasonable additional costs for performing income verifications).[52] It is easy to brush aside savings of this size on the ground that, within the context of an almost $3 trillion federal budget, $1 billion is simply not a great deal of money. But tell that to congressional appropriations committees, which are constantly seeking to find additional sources of money. Since budgeting in the current fiscal environment is essentially a zero-sum game, this will require the Congress to take funds from other programs. (Of course, there is no guarantee that any savings would be put to better use.)

Recommendations

This paper documents how the liberalization of WIC eligibility rules has led to substantial increases in eligibility and enrollment. We believe that WIC would be most effective if its resources were targeted on those families most in need of its services. That would be the best way to make it more successful in meeting its prime goals.[53]

This analysis, however, should be important even for those who do not want to see WIC

Statistics, *The Employment Situation: July 2008* (Washington, DC: Bureau of Labor Statistics, August 2008), http://www.bls.gov/news.release/pdf/empsit.pdf (accessed August 14, 2008).

[52]Mark Prell, an economist at the USDA, estimated that the per case cost of WIC recertification for WIC agencies was about $78.37 per household. Assuming this is accurate, even if every infant on WIC required an income determination, the cost would be only about $190 million. And that does not take into account the presumed ability of states to make the eligibility determination electronically from Medicaid records and then make that information available to the WIC grantee. Mark A. Prell, "Certification Duration For Food Assistance Programs: An Economic Model With An Application to WIC," (paper, presented at Income Volatility and Implications for Food Assistance Programs II conference, Washington, DC, November 16–17, 2006), http://www.npc.umich.edu/news/events/income_volatility_agenda/PRELL_Model2.pdf (accessed October 2, 2008).

[53]See Douglas J. Besharov and Peter Germanis, *Rethinking WIC: An Evaluation of the Women, Infants, and Children Program* (Washington, DC: The AEI Press, 2001).

enrollments reduced and therefore focused on the most disadvantaged. Even those who want expansions in WIC eligibility and recipients should be troubled by the haphazard and unequal expansions this report documents. Because eligibility depends of varying state and local policies concerning the income unit, the income period, and the income limits for Medicaid, the current program is plagued with substantial horizontal inequity in who receives benefits.

Some will read this report about the factors contributing to WIC's expansions and conclude that, without imposing onerous administrative burdens, there is no good way to control the discretion of what sociologists call "street level bureaucrats." This is unnecessarily pessimistic. Seven steps could make a big difference.

1. WIC staff, at all levels, need a better understanding of how income is measured, and the implications of current practices. Many local leaders want to gain control over the eligibility process. An educational process led by USDA could give them the tools to begin to do so, and might even gain the support of frontline workers—especially if they understood the serious horizontal inequities created by current practices.

2. USDA regulations should mandate careful attention to eligibility determinations. In too many key provisions, WIC regulations are permissive rather than mandatory. The almost casual attitude that the WIC regulations take to these issues seems to encourage the lax processes documented in this report. A certain amount of state- and local-level flexibility is necessary and valuable, of course. But current regulations do not require states to mandate that local agencies adopt income-verification procedures.[54] They do not require states to mandate that local agencies "consider the income . . . [that] more accurately reflects the family's status."[55] And they do not require states to disqualify individuals whose income rises sharply during the certification period.[56] The results are the lax procedures and inequitable eligibility decisions documented in

[54]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(d)(2)(v)(D) (2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed November 14, 2007), stating: "The State or local agency *may* require verification of information it determines necessary to confirm income eligibility for Program benefits." (Emphasis added.)

[55]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(d)(2)(i), (2007): 331, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed July 16, 2007).

[56]The portion of the regulations that deal with changes in income makes no mention of any *requirement* for participants to report any changes in income, stating only: "The local agency must reassess a participant's income eligibility during the current certification period if the local agency receives information indicating that the participant's household income has changed. However, such assessments are not required in cases where sufficient time does not exist to effect the change. Sufficient time means 90 days or less before the expiration of the certification period." See U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(1)(i) (2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed November 14, 2007),

this paper.

3. WIC agencies should use as the "income unit" the entire financial household, as required by the applicable USDA regulations, not just the subfamily of parent and child. A first step would be to clarify WIC regulations. They call the economic income unit to be used for measuring income eligibility the "family," even though they actually describe a broader unit: households that share income and resources.[57] For example, a single mother on her own with a family income just above 185 percent of the poverty line would not be eligible for WIC, while a single mother living in a household (with say her mother or boyfriend) that has a mich higher total income could be eligible—as long as her own personal income is below 185 percent of poverty. Correcting this misleading terminology might encourage workers to ask about the household's entire income. In addition, the USDA should provide guidance on how to apply this ambiguous concept, and then monitor its application.

4. The USDA regulations requiring that the "income period" used should be the one that "more accurately reflects the family's status" should be amended to clarify the meaning of the phrase. The regulations currently provide no real guidance in this issue and, as a result, practice has drifted to using the income period when the family had the lowest income. Although this is a general problem caused by increased levels of income variability, it is most sharply apparent in regard to the failure to account for the temporary drop in income of pregnant women who leave their jobs to have a baby. Estimates are that the number of eligible women rises by as much as 74 percent (from nine months before birth to five months after) because of income declines during pregnancy. Once again, the underlying issues are ambiguous. Simply applying an annual income measure in all circumstances would be inappropriate, but surely the regulations could narrow the band of local discretion to limit clearly unjust decisions.

5. The growth of adjunctive eligibility through expansions of Medicaid (directly or through SCHIP) and through the manipulations of food stamps rules should be capped. Opponents of this idea have noted that capping adjunctive eligibility at 185 percent of poverty, or 200 percent, or even 250 percent of poverty, would not remove many families from WIC—because other liberalizations in the definition of income have taken the operational income cap for WIC above those levels. That is true. But failure to place some cap on adjunctive

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[57]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.2, (2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed June, 21, 2007). There is apparently no definition of the relevant economic unit in the two statutes that the form the basis of WIC's legal framework: the *Child Nutrition Act of 1966* (CNA) and the *Richard B. Russell National School Lunch Act* (NSLA). The *Food Stamp Act of 1977*, however, defines a "household" to include "a group of individuals who live together and customarily purchase food and prepare meals together for home consumption." *Food Stamp Act of 1977*, as amended through Public Law 108–269, 108th Cong., 2d sess. (July 2, 2004), sec. 3(i)(1)(B), http://agriculture.senate.gov/Legislation/Compilations/FNS/FSA77.pdf (accessed June 21, 2007).

eligibility is an implicit ratification of past liberalizations of eligibility. Moreover, expansions of Medicaid eligibility continue, and could well expand WIC eligibility even further, and with even less relevance to the program's mission. (Adjunctive eligibility based on receipt of food stamps is discussed in Appendix 3.)

6. WIC's now meaningless test of "nutritional risk" should be dropped from eligibility determinations, or perhaps used as a means for directing program resources. Almost all applicants are now deemed to be at nutritional risk. As both the National Research Council (NRC) and Institute of Medicine (IOM) have recommended, this now meaningless requirement should be dropped. All it does it paint a misleading picture of WIC's purpose. On the other hand, consideration should be given to using some determination of risk or need as the basis for targeting *enhanced* WIC services to those low-income families that need more than WIC's standard benefits.

7. State and local WIC agencies should have a more direct financial stake in the proper governance of their programs, including the eligibility determinations. The absence of an audit process within WIC undoubtedly encouraged loosened eligibility determinations, but given that all program funds come from the federal government (or the infant formula rebates), a substantial liberalization of eligibility determinations was predictable. State and local WIC officials have little reason to be cost conscious—as long as program funds seem available. As in the case of many of other federal, means-tested programs, states should be required to pay a portion of WIC's program costs so that they would have a stake in enforcing eligibility rules. (Properly structured, this would make it possible to give states the flexibility to shift how they spend funds—to spend less on expanding enrollment and more on enhancing services for current recipients, such as putting healthier products in the food package and spending more time in counseling.)

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This review of WIC's eligibility and enrollment practices illustrates how, when means-tested programs are not restrained by legal, financial, or political forces, they can expand beyond their putative income-eligibility limits. Sometimes, such expansions do nothing but add recipients to the program. Too often, though, as in the case of WIC, the addition of less needy recipients diverts the program from its essential purpose, undermines sound program planning, creates significant horizontal inequities, and, at least in a small way, puts pressure on other, less politically popular programs.

All means-tested programs would benefit from a similar examination. Hence, the larger lesson from this paper's analysis is that policymakers, administrators, and the public need a better understanding of the nature and application of income-eligibility rules across the panoply of means-tested programs. Details matter. As we have seen, identifiable variations in how and when to measure income can shift eligibility for large numbers of families.

Table 1

WIC Eligibility at a Glance

Element	Formal or original rule	Implementation
Categories of eligible persons	*Pregnant women* up to entire pregnancy. *Infants* up to age 1. *Children* ages 1 to 4. *Breastfeeding women* up to 1 year. *Postpartum women* up to six months after end of pregnancy.	
Income eligibility	Between 100 and 185 percent of poverty, at state option.	
Maximum income level	All states have set maximum eligibility at 185 percent of the federal poverty guidelines, unless the applicant is adjunctively eligible.	The expansion of Medicaid eligibility has inadvertently raised income limits in a number of states.
Income unit	Households "of related or nonrelated individuals who are living together as one economic unit." Unborn children are counted household members for setting income threshold.	Often, only members of the subfamily and their income is counted.
Income period	Income during the past twelve months or current income, whichever "more accurately reflects the family's status." However, "persons from families with adult members who are unemployed shall be eligible based on income during the period of unemployment if the loss of income causes the current rate of income to be less than" the income guidelines.	Usually, the lowest income is chosen, without regard to whether it "more accurately reflects the family's status."
Included income	Gross cash income before deductions for income taxes, employees' social security taxes, insurance premiums, bonds, etc.	Income verification can be lax.

Element	Formal or original rule	Implementation
Excluded income	Excluded income includes noncash benefits (such as food stamps and housing benefits), military housing allowances, low-income energy assistance, and Title IV student financial aid. Reimbursements for work expenses, such as travel or meals.	
Earnings disregards	None	
Asset tests	None	
Adjunctive eligibility (sometimes called "categorical" or "automatic" eligibility)	Applicants are automatically eligible if they receive food stamps, TANF, or Medicaid benefits (or are certified as eligible by the program). At state agency option, this includes those eligible to participate in other state-administered programs, so long as eligibility for them is based on income at or below 185 percent of poverty. The applicant must still be at nutritional risk.	
Nutritional risk	Applicants must be at "nutritional risk," as determined by a WIC clinic or health professional.	Few applicants fail to qualify under at least one category of nutritional risk.
Priorities for services	Priorities in the following order: (1) Pregnant or breastfeeding women and infants with evident medical problems that demonstrate the need for supplemental foods. (2) Infants whose mothers had medical problems during pregnancy that demonstrated the need for supplemental foods or whose mothers were program participants. (3) Children with medical problems that demonstrate the need for supplemental foods. (4) Infants or pregnant or breastfeeding women at nutritional risk because of an inadequate dietary pattern. (5) Children at nutritional risk because of an inadequate dietary pattern.	Seldom necessary due to funding increases in the 1990s. May change, however, if funding pressures continue to rise.

Element	Formal or original rule	Implementation
	(6) Postpartum women with any nutritional risk. (7) Individuals certified for WIC solely due to homeless or migrant status and current WIC participants who could have medical or dietary problems without WIC.	
Recertification periods		
Basic rules	*Pregnant women* are certified for the duration of their pregnancies, and up to the last day of the month in which the infant becomes six weeks old or the pregnancy ends. *Postpartum women* are certified up to the last day of the sixth month after the baby is born or the pregnancy ends (postpartum). *Breastfeeding women* are certified approximately every six months. (The state agency may permit local agencies to certify a breastfeeding woman up to the last day of the month in which her infant turns one year old, or until the woman ceases breastfeeding, whichever occurs first.) *Infants* are certified approximately every six months. (The state agency may permit its local agencies to certify an infant under six months of age up to the last day of the month in which the infant turns one year old, provided the quality and accessibility of health care services are not diminished.) *Children* are certified approximately every six months ending with the last day of the month in which a child reaches age five.	
State options	As noted above, state agencies may authorize local agencies to increase certification periods by as much as six months for infants and breastfeeding mothers. They may also authorize local agencies to use shorter certification periods than noted above, "on a case-by-case basis," as long as guidance is provided to local agencies. Longer or shorter periods of up to thirty days may be granted when there are scheduling difficulties.	Although we have been unable to find extensive documentation, apparently many states have taken advantage of this provision.

Element	Formal or original rule	Implementation
	State and local agencies may require recipients to report changes in their income during the certification period.	
Verification requirements	State agencies must require proof of identity, residency, pregnancy, and adjunctive eligibility or of family income.	States usually require proof of income through pay stubs, employer statements, or W-2 forms. (Documentation needed for pregnancy unless visually apparent.)
Time limits for receiving benefits	None while eligible because of pregnancy, post-pregnancy status, or child's age.	
Other	Applicants must reside in the state in which they are applying (except for Indian State agencies). Applicants must be physically present at certification.	

II. The WIC Program

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) started as a two-year pilot program in 1972, and was made permanent in 1975. Administered by the Food and Nutrition Service (FNS) of the U.S. Department of Agriculture (USDA), in 2007, WIC was a $7.3 billion program (including $1.9 billion in infant formula rebates), serving about 8.3 million infants, children ages one through four, and pregnant and postpartum mothers. (Unless otherwise indicated, all dollar amounts in this paper are in 2007 dollars.)

According to the USDA, "The program was established during a time of growing public concern about malnutrition among low-income mothers and children. WIC is based on the premise that early intervention programs during critical times of growth and development can help prevent future medical and developmental problems."[58] Although observers disagree about how well WIC meets its important goals,[59] WIC is nevertheless a key component of the federal government's efforts to provide nutritional assistance to low-income mothers and children.

Except in the few states that supplement administrative costs, all costs of the WIC program are borne by the federal government (and, through the rebate system, infant formula manufacturers).[60] Although WIC is a USDA program, most of its grantees are state health departments. These state agencies, in turn, fund WIC services though local health-related agencies such as health departments, hospitals, public health clinics, and community health centers. (As we will see, this separation of the functions of determining eligibility from paying program costs creates a "moral hazard," that is, local decision makers have no incentive to cut costs unless they face effective eligibility monitoring or a rigorously enforced budget limit.)

Program categories and benefits. WIC serves seven groups of low-income women and children (see box 1). As the USDA explains, except possibly for those young infants who are only fed formula, "WIC was never intended to be a primary source of food, nor of general food assistance."[61] That role is assigned to food stamps and other cash and noncash assistance programs. Instead, WIC seeks "to safeguard the health of low-income women, infants, and

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[58]Victor Oliveira, Elizabeth Racine, Jennifer Olmsted, and Linda M. Ghelfi, *The WIC Program: Background, Trends, and Issues* (Washington, DC: USDA, September 2002), 1, http://www.ers.usda.gov/publications/fanrr27/fanrr27.pdf (accessed February 1, 2006).

[59]See generally Douglas J. Besharov and Peter Germanis, *Rethinking WIC: An Evaluation of the Women, Infants, and Children Program* (Washington, DC: The AEI Press, 2001).

[60]For a discussion of this point, see the text accompanying footnote //??XX.

[61]U.S. Department of Agriculture, Food and Nutrition Service, "Special Supplemental Nutrition Program for Women, Infants and Children (WIC): Revisions in the WIC Food Packages," *Code of Federal Regulations*, title 7, sec. 246(II) (2007): 68996, http://www.fns.usda.gov/wic/regspublished/wicfoodpkginterimrulepdf.pdf (accessed December 19, 2007).

children up to age 5 who are at nutrition risk"[62] by providing "free supplemental food packages, nutrition counseling, and health and social service referrals."[63]

WIC's monthly food packages contain such basics as milk (or cheese), adult cereal, fruit juice, eggs, and peanut butter (or an equivalent legume product), worth on average about $40 for women and children. Infants also receive iron-fortified formula which brings the value of their package to about $110 per month (see box 1). Include the benefit for the infant's mother, and the monthly value of the WIC package is about $150 for a mother with one child.

Using 2005 data (the latest available), the average *annual cost* per child is about $706 with a total cost of about $2.83 billion, the average cost per infant was about $450 with a total cost of about $923 million, and an average cost per woman of about $747 with a total cost of about $1.47 billion.[64]

In 2006, the USDA proposed changes in the various WIC food packages to reflect advances in nutrition science and the shifting dietary needs of low-income children and mothers.[65] Approved in late 2007, the changes are designed to reduce obesity and increase intake of nutrients such as iron, fiber, and vitamin E by adding fruits, vegetables, and whole grains.[66] According to the USDA, "The revisions align the WIC food packages with the 2005 Dietary Guidelines for Americans and infant feeding practice guidelines of the American Academy of Pediatrics, . . . with certain cost containment and administrative modifications found necessary by the

[62]U.S. Department of Health and Human Services, "About WIC," http://www.fns.usda.gov/wic/aboutwic/mission.htm (accessed December 2, 2005).

[63]U.S. Department of Agriculture, Economic Research Service, *The Food Assistance Landscape: March 2003* (Washington, DC: USDA, March 2003), 2, http://www.ers.usda.gov/publications/fanrr28-2/fanrr28-2.pdf (accessed August 23, 2005).

[64]Author's calculations of total and per-person costs by category based on U.S. Department of Agriculture, Food and Nutrition Service, *WIC Food Cost Reports* (various years), http://www.fns.usda.gov/wic/fundingandprogramdata/foodcostreports.htm (accessed November 14, 2007); and U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program and Participation Costs," http://www.fns.usda.gov/pd/wisummary.htm (accessed July 9, 2007).

[65]U.S. Department of Agriculture, Food and Nutrition Service, "Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): Revisions in the WIC Food Packages," *Federal Register* 71, no. 151 (August 7, 2006): 44784–44855, http://www.fns.usda.gov/wic/regspublished/foodpackagesrevisions-proposedrulepdf.pdf (accessed June 20, 2007).

[66]U.S. Department of Agriculture, Food and Nutrition Service, "Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): Revisions in the WIC Food Packages," *Federal Register* 71, no. 151 (August 7, 2006): 44784–44855, http://www.fns.usda.gov/wic/regspublished/foodpackagesrevisions-proposedrulepdf.pdf (accessed June 20, 2007).

Department to ensure cost neutrality."[67]

The original deadline for implementation was August 5, 2009. However, transition from the old food package to the new one, especially given the requirement of the cost neutrality, has posed a number of operational challenges. According to Nancy Burstein of Abt Associates, one issue is related to food package sizes. For example, the WIC vouchers in the new food package are for one pound loaves of whole grain bread even though whole grain bread typically comes in two pound loaves.[68] Hence, the deadline for implementation was pushed back to October 1, 2009 as "the August 5, 2009 date poses administrative and management information system challenges for State agencies."[69] The end date for the comment period on the final rule was not changed from February 1, 2010.

[67]U.S. Department of Agriculture, Food and Nutrition Service, "Special Supplemental Nutrition Program for Women, Infants and Children (WIC): Revisions in the WIC Food Packages – Interim Rule," http://www.fns.usda.gov/wic/regspublished/foodpackages-interimrule.htm (accessed January 21, 2007).

[68]See Nancy Burstein, Abt Associates, e-mail message to author, May 30, 2008.

[69]U.S. Department of Agriculture, Food and Nutrition Service, "Special Supplemental Nutrition Program for Women, Infants and Children (WIC): Revisions in the WIC Food Packages; Delay of Implementation Date," *Federal Register* 73, no. 52 (March 17. 2008): 14153, http://edocket.access.gpo.gov/2008/pdf/E8-5249.pdf (accessed June 20, 2008).

Box 1
WIC FOOD PACKAGES
Monthly Contents and Values
2007

- Pregnant women and partially breastfeeding women (up to the infant's first birthday) receive milk (or cheese), adult cereal, fruit juice, eggs, and peanut butter (or an equivalent legume product), worth on average about $40.02.
- Non-breastfeeding postpartum women (up to six months after the end of the pregnancy) receive milk (or cheese, and in lesser quantities than breastfeeding women), adult cereal, fruit juice (in lesser quantities than breastfeeding women), and eggs, worth on average about $32.41.
- Fully breastfeeding women (up to the infant's first birthday) receive milk (and cheese), eggs, cereal, juice, peanut butter (or an equivalent legume product), tuna, and carrots, worth on average about $51.25.
- Infants ages zero to three months receive iron-fortified formula, worth on average about $108.95 (at a cost of about $25.41 after the rebate).
- Infants ages four to twelve months receive iron-fortified formula, infant cereal, and fruit juice, worth on average about $114.16 (at a cost of about $30.62 after the rebate).
- Children ages one to four receive milk (or cheese), adult cereal, fruit juice, eggs, and peanut butter (or an equivalent legume product), worth on average about $35.60.
- Children or women with special dietary needs (that is, those who cannot consume food in the other packages for medically document reasons) are supposed to receive tailored food packages, so that their contents and value vary from person to person, but generally include special forms of formula, cereal, and juice.

Notes:
U.S. Department of Agriculture, Food and Nutrition Service, Office of Analysis, Nutrition, and Evaluation, *WIC Food Packages Costs and Rebates Summary: Fiscal Year 2005* (Washington, DC: USDA, September 2007), http://www.fns.usda.gov/oane/WICFoodCosts/FY2005/FY2005.pdf (accessed July 8, 2008).
These food prices were "based on 2003 retail sales data collected by AC Nielsen. . . . FNS computed average prices for all food items other than infant formula from calendar year 2003 AC Nielsen Homescan data. The price for infant formula was estimated from FY 2004 Nielsen supermarket scanner data." The prices were then inflation-adjusted for 2007, using the Consumer Price Index.
Post-rebate figures are for FY 2007; pre-rebate numbers are for FY 2004 in 2007 dollars.

Changes in these packages were adopted in 2007, and become mandatory in 2009. See U.S. Department of Agriculture, Food and Nutrition Service, "Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): Revisions in the WIC Food Packages," *Federal Register* 71, no. 151 (August 2006): 44844, 44853, http://www.fns.usda.gov/wic/regspublished/foodpackagesrevisions-proposedrulepdf.pdf (accessed June 14, 2007).

Besides the fact that it provides a prescribed food package, WIC's counseling services are what many think set it apart from food stamps, which are essentially vouchers (now in the form of a debit card) with which to obtain food. (In fact, most analysts consider food stamps to be a form

of income support.)[70] WIC, in contrast, additionally offers sessions on nutrition and health to all WIC participants upon certification—although they are normally no more than fifteen minutes long and only once every three months.[71] (These sessions are voluntary; the food package is not conditional on attendance.)

At these sessions, staff provide advice to parents on how to manage their own nutritional risks and those of their children, as well as encouraging breastfeeding.[72] As Abt Associates researchers describe: "Although WIC participants are not required to attend nutrition education, local WIC agencies often schedule nutrition counseling to coincide with food instrument issuance to encourage WIC clients to attend. Education on a variety of health and nutrition-related topics may be provided in individual counseling sessions, through group classes, or via films and videos."[73]

Eligibility. The main basis of eligibility for WIC is income at or below 185 percent of the federal poverty guidelines.[74] For simplicity, and in accord with common practice, this paper refers

[70]See, for example, James C. Ohls and Harold Beebout, *The Food Stamp Program: Design Tradeoffs, Policy, and Impacts* (Washington DC: The Urban Institute Press, 1993).

[71]Douglas J. Besharov and Peter Germanis, *Rethinking WIC: An Evaluation of the Women, Infants, and Children Program* (Washington, DC: The AEI Press, 2001), 14–15; and Carol Olander, *Nutrition Education and the Role of Dosage* (Alexandria, VA: USDA, June 2007), 3, http://www.fns.usda.gov/oane/MENU/Published/NutritionEducation/Files/LitReview_Dosage.pdf (accessed July 19, 2007), stating: "Control group participants received the usual 10 minutes of dietary counseling during bimonthly clinic visits to pick up WIC vouchers." See also U.S. General Accounting Office, *Nutrition Education: USDA Provides Multiple Services through Multiple Programs, but Stronger Linkages among Efforts are Needed* (Washington, DC: GAO, April 2004), http://www.fns.usda.gov/wic/resources/MultiplePrograms.pdf (accessed March 12, 2008).

[72]Douglas J. Besharov and Peter Germanis, *Rethinking WIC: An Evaluation of the Women, Infants, and Children Program* (Washington, DC: The AEI Press, 2001), 14–15.

[73]Bonnie Randall, Kim Sprague, David B. Connell, and Jenny Golay, *WIC Nutrition Education Demonstration Study: Prenatal Intervention* (Alexandria, VA: USDA, March 2001), vii–viii, 1–2, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/WICNutEdPrenatal.pdf (accessed July 19, 2007).

[74]The WIC statute requires the Secretary to establish income eligibility standards for the states to apply for those at nutritional risk in families "with an income that is less than the maximum income limit prescribed under section 9(b) of the Richard B. Russell National School Lunch Act for free and reduced price meals." *Child Nutrition Act of 1966*, as amended through Public Law 109–85, 109th Cong., 1st sess. (October 4, 2005), sec. 17(2)(A)(I), http://www.fns.usda.gov/cnd/Governance/Legislation/Historical/CNA-Oct-4-2005.pdf (accessed January 23, 2008). In turn, the National School Lunch Act provides that, for any given year, they "shall be 185 percent of the applicable family size income levels contained in the nonfarm income poverty guidelines prescribed by the Office of Management and Budget, as adjusted annually in accordance with subparagraph (B)." *Richard B. Russell National School Lunch Act*, as amended through Public Law 109–97, 109th Cong., 1st sess. (November 10, 2005), sec. 9(b)(1)(A), http://www.fns.usda.gov/cnd/Governance/Legislation/Historical/NSLA-Nov-10-2005.pdf (accessed January 9, 2008). See also U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program

to income in relation to the "poverty line" or "poverty," rather than, in this context, the more technically correct "poverty guidelines," "federal poverty level," or "FPL."[75]

Although WIC regulations label the income unit as the "family," they actually encompass a broader unit: households that share income and resources, defined as "a group of related or nonrelated individuals who are living together as one economic unit."[76] Those not living together as an economic unit do not have their collective incomes counted in determining eligibility.

Throughout this paper, we use as the income unit "family income" [that is, the income of "a group of two people or more (one of whom is the householder) related by birth, marriage, or adoption and residing together"], but, as we point out in relevant places, WIC eligibility is keyed to "family household" income [that is, "a household maintained by a householder who is in a family, and includes any unrelated people (unrelated subfamily members and/or secondary individuals) who may be residing there"],[77] which, at the median, is about 2 percent higher.[78]

Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(d)(1), (2007): 331, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed June 14, 2007).

[75]The federal poverty guidelines, issued each year by the Department of Health and Human Services, are a simplified version of the federal poverty thresholds and are used primarily for administrative purposes (such as determining eligibility for certain programs), whereas the thresholds are used for statistical purposes (such as calculating a poverty rate). The guidelines are based solely on family size (which is calculated as a weighted average of the corresponding family size in the thresholds, rounded to multiples of $10), while the thresholds are based on both total family size and the number of children under 18 in the family. In addition, the guidelines have different sets of figures for Alaska and Hawaii (which the thresholds do not) and do not distinguish between elderly and non-elderly individuals (which the thresholds do for family units of one or two persons). Finally, the guidelines for a given year are issued in February of that same year (but are based on the thresholds of the previous year), while the thresholds for a given year are issued in August of the next year. U.S. Department of Health and Human Services, "Frequently Asked Questions Related to the Poverty Guidelines and Poverty," http://aspe.hhs.gov/poverty/faq.shtml#differences (accessed June 14, 2007).

[76]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.2, (2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed June, 21, 2007). There is apparently no definition of the relevant economic unit in the two statutes that form the basis of WIC's legal framework: the *Child Nutrition Act of 1966* (CNA) and the *Richard B. Russell National School Lunch Act* (NSLA). The *Food Stamp Act of 1977*, however, defines a "household" to include "a group of individuals who live together and customarily purchase food and prepare meals together for home consumption." *Food Stamp Act of 1977*, as amended through Public Law 108–269, 108th Cong., 2d sess. (July 2, 2004), sec. 3(i)(1)(B), http://agriculture.senate.gov/Legislation/Compilations/FNS/FSA77.pdf (accessed June 21, 2007).

[77]U.S. Census Bureau, "Current Population Survey (CPS) – Definitions and Explanations" (Washington, DC: U.S. Census Bureau, January 20, 2004), http://www.census.gov/population/www/cps/cpsdef.html (accessed November 14, 2007).

[78]Author's calculations from Carmen DeNavas-Watt, Bernadette D. Proctor, and Jessica C. Smith, *Income, Poverty, and Health Insurance Coverage in the United States: 2007*, Current Population Reports (Washington, DC: U.S. Census Bureau, August 2008), http://www.census.gov/prod/2008pubs/p60-235.pdf (accessed November 17, 2008);

States are permitted to set lower income limit standards for eligibility (as low as 100 percent of poverty),[79] but because of funding increases, all states have set maximum eligibility at 185 percent of poverty.[80] For the period of July 1, 2008 to June 30, 2009 (hereinafter, "2008/2009"),[81] it is $32,560 for a family of three, and $45,880 for a family of five.[82] (The guidelines for Alaska and Hawaii are higher.) Table 2 presents the income maximums for WIC eligibility based on family and, for WIC, household size (in the 48 contiguous states).

and U.S. Census Bureau, "Historical Income Tables—Families: Table F-6. Regions--Families (All Races) by Median and Mean Income: 1953 to 2007," http://www.census.gov/hhes/www/income/histinc/f06AR.html (accessed November 17, 2008).

[79]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(d)(1), (2007): 331, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed January 23, 2007).

[80]Victor Oliveira, Mark Prell, David Smallwood, and Elizabeth Frazao, *WIC and the Retail Price of Infant Formula*, Food Assistance and Research Report 39 (Washington, DC: USDA, May 2004), 7, http://www.ers.usda.gov/publications/fanrr39-1/fanrr39-1.pdf (accessed August 13, 2007).

[81]Although the Department of Health and Human Services (HHS) issues the poverty guidelines in either late January or early February for immediate application, individual programs are allowed to choose a later effective date. In the case of the WIC program, the new poverty guidelines take effect at the beginning of July and remain in effect until the end of June of the next year. See U.S. Department of Health and Human Services, "Frequently Asked Questions Related to the Poverty Guidelines and Poverty," http://aspe.hhs.gov/poverty/faq.shtml (accessed June 24, 2008).

[82]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Income Eligibility Guidelines 2008-2009," http://www.fns.usda.gov/wic/howtoapply/incomeguidelines.htm (accessed June 24, 2008).

Table 2

WIC Income-Eligibility Guidelines

Contiguous United States

2008/2009

Persons in family or household	185% of poverty guidelines
1	$19,240
2	$25,900
3	$32,560
4	$39,220
5	$45,880
6	$52,540
7	$59,200
8	$65,860
For each additional individual add	$6,660

Source: U.S. Department of Agriculture, "How to Apply: WIC Income Eligibility Guidelines 2007–2008," http://www.fns.usda.gov/wic/howtoapply/incomeguidelines07-08.htm (accessed May 31, 2007). In 2007 dollars.

Note: The poverty guidelines for Hawaii and Alaska (each have own) are higher than those for the contiguous United States.

Because WIC uses the poverty guidelines (as do most means-tested programs) rather than the poverty line, for large households, program eligibility reaches far above poverty. The Census Bureau caps the federal poverty thresholds at the level for a family of nine or more (with only one child under 18), which, in 2007, was $46,143.[83] The poverty guidelines, however, are not similarly capped. Under the 2008/2009 guidelines, each additional person in the household beyond eight adds another $6,660 to the income eligibility guidelines.[84]

For the purpose of determining eligibility, countable income is defined as gross money income from all sources (before taxes).[85] Some forms of income are not counted, however, primarily noncash benefits (such as food stamps and housing benefits), military housing

[83]U.S. Census Bureau, Housing and Household Economic Statistics Division, "Poverty Thresholds 2006," http://www.census.gov/hhes/www/poverty/threshld/thresh06.html (accessed June 15, 2007).

[84]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Income Eligibility Guidelines 2007–2008," http://www.fns.usda.gov/wic/howtoapply/incomeguidelines07-08.htm (accessed July 19, 2007).

[85]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(d)(2)(ii), (2007): 331, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed January 2007).

allowances, low-income energy assistance, and Title IV student financial aid.[86] In addition, some states, such as California and Wisconsin, specifically instruct local agencies to exclude "payments as reimbursement for job-related expenses, e.g. travel,"[87] but presumably such payments would be excluded even in the absence of a specific mandate.

There are no asset limits for receiving WIC benefits. Moreover, there are no time limits, as such, for receiving WIC benefits, but they are implicitly imposed because eligibility is based on the mother's pregnancy or breastfeeding status and the age of the child.

Eligibility for WIC can also be established "adjunctively," that is, individuals are automatically eligible if they are receiving food stamps, Medicaid, TANF cash assistance, and certain other state-administered, means-tested programs (with income caps at or below 185 percent of poverty).[88] As described below, adjunctive eligibility can result in income eligibility substantially above WIC's general income cutoff of 185 percent of poverty.

Whether income-eligible or adjunctively eligible, however, applicants must also be at "nutritional risk," a somewhat nebulous term that, as we will see, excludes very few low-income mothers or children from the program.

Funding. Unlike many other programs for low-income Americans (such as food stamps and Medicaid), WIC is not an entitlement to either individual recipients or states. Instead, it is funded by annual congressional appropriations.[89]

Appropriations. In 2007, Congress appropriated about $5.5 billion for WIC. About $4.0 billion was for food and about $1.5 billion was for "Nutrition Service and Administrative costs"

[86]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(d)(2)(iv), (2007): 332, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed July 16, 2007).

[87]California Department of Health Services, *WIC Program Manual* (Sacramento, CA: California Department of Health Services, October 2007), 3, http://www.wicworks.ca.gov/resources/wpm/section200/210-40.2.pdf (accessed June 21, 2007). See also Wisconsin Department of Health and Family Services, *WIC Operations Manual* (Madison, WI: Wisconsin Department of Health and Family Services, April 2006), 19, http://dhfs.wisconsin.gov/wic/WICPRO/pdf_files/OpsManl/policy02-03.pdf (accessed July 5, 2007).

[88]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(D)(vi)(1), (2007): 334, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed July 16, 2007).

[89]United States Department of Agriculture, Food and Nutrition Service, "WIC at a Glance," http://www.fns.usda.gov/wic/aboutwic/wicataglance.htm (accessed June 13, 2007).

(NSA).[90] Approximately two-thirds of nutrition services and administrative (NSA) costs are for "nutrition education, breastfeeding promotion and support, and linkages to health and other client services (such as immunization; drug, alcohol and tobacco education; referrals to family and child health social programs). The remaining third is used for traditional management functions."[91] The NSA amount is derived from a formula based on the state's prior year's grant, its inflation-adjusted administrative cost per participant,[92] and its proportion of the aggregate national number of income-eligible persons. (As mentioned above, the FY 2009 appropriation is about 22 percent higher.)

Some states supplement their NSA expenditures with their own funds.[93] In 1998, the only year for which we found data, states (and localities) spent about $93 million on NSA.[94] The amount of state support varies. In that year, Massachusetts, for example, provided over 37 percent of total NSA costs (about $12.5 million), while West Virginia provided less than 0.2 percent (only about $19,000).[95]

Table 3 shows how much WIC spending and enrollment have grown since the program's inception, and the large impact of the infant formula rebate program on both. At more than $1.9 billion in 2007, manufacturer's rebates contributed about 26 percent of total WIC spending. Enrollment now exceeds eight million people, and spending (including the rebates) is more than $7.3 billion a year. (Table 3 also shows the difference between the amount granted to the states by the federal government and the amount actually spent by the states. The remainder, usually between $100 and $300 million a year, goes back to the federal government for funding the next year's WIC program.)

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[90]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Participation and Costs," http://www.fns.usda.gov/pd/wisummary.htm (accessed June 13, 2007).

[91]U.S. Department of Agriculture, "Special Supplemental Nutrition Program for Women, Infants and Children (WIC)," http://www.fns.usda.gov/pd/37WIC_Monthly.htm (accessed February 7, 2008).

[92]The initial figure was established in 1987 on the basis of the average nationwide cost per participant. See Douglas J. Besharov and Peter Germanis, *Rethinking WIC: An Evaluation of the Women, Infants, and Children Program* (Washington, DC: The AEI Press, 2001), 130.

[93]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.16, (2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed June 14, 2007).

[94]U.S. General Accounting Office, *Food Assistance: Financial Information on WIC Nutrition Services and Administrative Costs* (Washington, DC: GAO, March 2000), 8, http://www.gao.gov/new.items/rc00066.pdf (accessed June 18, 2007).

[95]U.S. General Accounting Office, *Food Assistance: Financial Information on WIC Nutrition Services and Administrative Costs* (Washington, DC: GAO, March 2000), 8, http://www.gao.gov/new.items/rc00066.pdf (accessed June 18, 2007).

Table 3

WIC Spending and Participation

1974–2007

(in millions of 2007 dollars)

Year	Grants to states			State spending of federal grants			Infant formula rebate amounts	Total spending	Total participants (in millions)[c]
	Food	NSA[a]	Total	Food	NSA[a]	Total[b]			
1974	–	–	–	34.45	9.26	43.71	-	42.50	0.088
1975	–	–	–	295.79	48.65	344.44	-	334.90	0.344
1976	–	–	–	445.23	73.95	519.18	-	504.80	0.520
1977	–	–	–	725.08	151.39	876.47	-	852.20	0.848
1978	–	–	–	989.91	216.39	1,206.31	-	1,172.90	1.181
1979	–	–	–	1,225.44	276.76	1,502.20	-	1,460.60	1.483
1980	–	–	–	1,471.76	354.00	1,825.76	-	1,775.20	1.914
1981	–	–	–	1,616.57	366.65	1,983.22	-	1,928.30	2.119
1982	–	–	–	1,628.50	409.44	2,037.94	-	1,981.50	2.189
1983	–	–	–	1,873.48	459.73	2,333.21	-	2,268.60	2.537
1984	–	–	–	2,229.34	536.35	2,765.69	-	2,689.10	3.045
1985	–	–	–	2,294.85	566.18	2,861.03	-	2,781.80	3.138
1986	–	–	–	2,392.76	598.78	2,991.55	-	2,908.70	3.312
1987	–	–	–	2,447.89	606.39	3,054.28	-	2,969.70	3.429
1988	–	–	–	2,508.67	630.46	3,139.13	-	3,052.20	3.593
1989	–	–	–	2,496.85	698.24	3,195.08	-	3,106.60	4.119
1990	–	–	–	2,592.49	758.20	3,350.69	807.77	4,158.46	4.517
1991	–	–	–	2,666.65	828.03	3,494.68	998.55	4,493.23	4.893
1992	–	–	–	2,903.51	937.05	3,830.27	1,118.17	4,958.72	5.403
1993	—	—	—	3,045.44	1,015.93	4,061.37	1,267.09	5,328.46	5.921
1994	–	–	–	3,252.37	1,167.12	4,419.49	1,394.52	5,814.01	6.477
1995	–	–	–	3,409.73	1,228.11	4,637.84	1,432.26	6.070.10	6.894
1996	–	–	–	3,541.17	1,296.81	4,837.98	1,556.09	6,394.07	7.186
1997	–	–	–	3,648.54	1,306.48	4,955.02	1,682.08	6,637.10	7.407
1998	–	–	–	3,581.17	1,353.59	4,934.76	1,721.68	6,656.44	7.367
1999	–	–	–	3,548.67	1,323.97	4,872.64	1,764.67	6,637.31	7.311
2000	3,634.04	1,321.29	4,955.33	3,433.18	1,326.74	4,759.92	1,732.79	6,492.70	7.192
2001	3,579.53	1,321.39	4,900.92	3,526.67	1,302.16	4,828.83	1,729.39	6,558.22	7.306
2002	3,734.42	1,388.04	5,122.46	3,605.14	1,361.92	4,967.05	1,703.68	6,670.74	7.491
2003	3,815.98	1,440.18	5,256.16	3,654.51	1,425.68	5,080.19	1,718.49	6,798.68	7.631
2004	4,045.33	1,431.75	5,477.08	3,919.75	1,400.38	5,320.13	1,806.94	7,127.07	7.904
2005	4,014.89	1,452.32	5,467.21	3,816.39	1,415.09	5,231.48	1,811.47	7,042.94	8.023
2006	3,986.40	1,479.99	5,466.38	3,701.30	1,522.26	5,145.91	1,825.56	6,971.46	8.088
2007	3,992.40	1,524.74	5,517.15	3,886.60	1,480.10	5,366.70	1,906.00	7,323.90	8.285
2008	4,446.21	1,582.01	6,028.23	–	–	–	–		8.700[d]
2009	–	–	6,660.00[d]	–	–	–	–	–	9.000[d]

Sources: For the grants to states, 2000–2008, see U.S. Department of Agriculture, Food and Nutrition Service, "Funding and Program Data" (various years), http://www.fns.usda.gov/wic/fundingandprogramdata/ (accessed October 9, 2008); for WIC program participation and costs, 1974–2007, see U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program and Participation Costs," http://www.fns.usda.gov/pd/wisummary.htm (accessed February 21, 2008); and for infant formula rebate amounts, Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to Mithun Mansinghani, July 9, 2007; Edward Harper, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to Douglas Call, April 22, 2008.

Notes:
[a]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program and Participation Costs," http://www.fns.usda.gov/pd/wisummary.htm (accessed January 8, 2007): "Nutrition Services and Administrative costs. Nutrition Services includes nutrition education, preventative and coordination services (such as health care), and promotion of breastfeeding and immunization."
[b]This total does not include "funds for program evaluation, Farmers' Market Nutrition Program (FY 1989 onward), special projects and infrastructure."
[c]"Participation data are annual averages (6 months in FY 1974; 12 months all subsequent years)."
[d]Projected. See *Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009*, P.L. 110-329, 110th Cong. 2nd Sess., http://thomas.loc.gov/cgi-bin/query/z?c110:H.R.2638.enr: (accessed October 3, 2008); and U.S. Department of Agriculture, Food and Nutrition Service, *Special Supplemental Nutrition Program with Women, Infants and Children (WIC): September 2008 Report to Congress* (Alexandria, VA: USDA, September 2008).

Infant formula rebates. Since 1990, congressional appropriations have been supplemented by rebates from infant formula manufacturers. The rebates are obtained from manufacturers that competitively bid for contracts with state agencies to be the sole providers of WIC-provided formula. The manufacturers usually sell the formula to the states for as little as 2 percent to 15 percent of the wholesale price. Because the federal government essentially reimburses the states for the formula's full wholesale price, the state thus gains additional funds to support the program.

The rebate system is, in effect, a fee charged for getting the advantage of being the WIC infant formula provider in a state. Analysts disagree about the actual cost of the rebate paid (since the firm believes it obtains a benefit from being the provider) and the degree to which the firms versus middle-class purchasers of formula pay the fee.[96] Whatever the answer to both questions, as the percent of American infants covered rises, the financial viability of the rebate system declines.

In any event, the rebates were a major source of funds for the program's expansion in the early 1990s (see table 3).[97] According to Jay Hirschman of the FNS, prior to the infusion of infant formula rebates into the WIC program, "many local agencies had waiting lists, and some could not certify older children (e.g., ages 3 and 4 years) due to lack of funding."[98] In 2007, rebates from infant formula manufacturers amounted to about $1.9 billion,[99] almost 26 percent of total WIC expenditures.

After adjusting for inflation, however, total rebate revenues have not much increased since around 1997 (see table 3). According to the Government Accountability Office (GAO), "Total savings from rebates, which increased from about $800 million in 1990 to more than $1.6 billion in 1997, have remained near $1.6 billion per year since that time after adjusting for inflation."[100]

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[96]See, for example, U.S. Government Accountability Office, *Information on WIC Sole-Source Rebates and Infant Formula Prices* (Washington, DC: GAO, May 1998), http://www.gao.gov/archive/1998/rc98146.pdf (accessed August 4, 2008); and Victor Oliveira, Mark Prell, David Smallwood, and Elizabeth Frazao, *WIC and the Retail Price of Infant Formula,* Food Assistance and Research Report 39 (Washington, DC: USDA, May 2004), http://www.ers.usda.gov/publications/fanrr39-1/fanrr39-1.pdf (accessed August 13, 2007).

[97]See generally Douglas J. Besharov and Peter Germanis, *Rethinking WIC: An Evaluation of the Women, Infants, and Children Program* (Washington, DC: The AEI Press, 2001).

[98]U.S. Department of Agriculture, Food and Nutrition Service, Office of Analysis, Nutrition, and Evaluation, e-mail message to author, June 3, 2008.

[99]Edward Harper, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to Douglas Call, April 22, 2008.

[100]U.S. Government Accountability Office, *Food Assistance: FNS Could Take Additional Steps to Contain WIC Infant Formula Costs* (Washington, DC: GAO, March 2006), 5, http://www.gao.gov/new.items/d06380.pdf (accessed July 5, 2007).

This plateauing of total rebates obscures the fact that *per-can* rebates have been falling. (The total has remained about constant because continuing increases in enrollment have led to the purchase of more formula.) Between 2002 and 2005, for example, the average per-can cost in those states that negotiated new contracts with manufacturers rose more than fourfold.[101] Nationwide, the average amount states pay per can rose 40 percent between 2002 and 2005, a trend that is likely to continue as contracts expire and more states negotiate new contracts.

The USDA's Economic Research Service (ERS) reports that these increases are partially due to "the introduction of more costly formulas supplemented with DHA and ARA (two fatty acids found in breast milk)."[102] As some states adopted these new supplemented formulas in their contracts, their net wholesale costs increased, and this trend is likely to continue because "recent legislation requires that all States offer them as of their next rebate contract."[103] It also appears that these new formulas and other market factors have strengthened the ability of manufacturers to offer smaller rebates and weakened the ability of states to resist.[104] (The ERS also found that the retail markup has been rising.)

The ERS, thus, concluded that "since WIC is a discretionary program with a fixed funding level, higher costs mean that fewer persons will be served, or that additional funds need to be appropriated."[105] A GAO report issued five months earlier reached the same conclusion as the

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[101]U.S. Government Accountability Office, *Food Assistance: FNS Could Take Additional Steps to Contain WIC Infant Formula Costs* (Washington, DC: GAO, March 2006), 17, http://www.gao.gov/new.items/d06380.pdf (accessed July 5, 2007).

[102]Victor Oliveira and David E. Davis, *Recent Trends and Economic Issues in the WIC Infant Formula Rebate Program* (Washington, DC: USDA, August 2006), iii, http://www.ers.usda.gov/publications/err22/err22.pdf (accessed August 21, 2007).

[103]Victor Oliveira and David E. Davis, *Recent Trends and Economic Issues in the WIC Infant Formula Rebate Program* (Washington, DC: USDA, August 2006), 36, http://www.ers.usda.gov/publications/err22/err22.pdf (accessed August 21, 2007).

[104]U.S. Government Accountability Office, *Food Assistance: FNS Could Take Additional Steps to Contain WIC Infant Formula Costs* (Washington, DC: GAO, March 2006), 24–25, http://www.gao.gov/new.items/d06380.pdf (accessed July 5, 2007), stating: "By 2003, all three manufacturers introduced new infant formulas enhanced with the fatty acids DHA and ARA. Like other newly-introduced infant formulas, these enhanced infant formulas were more expensive. Two state officials told us that the manufacturers replaced the milk-based infant formula the state was providing to WIC participants in some parts of the state with the enhanced infant formula. Retail outlets stopped stocking the original milk-based infant formula; as a result, states had to purchase the enhanced infant formula. In contrast, when manufacturers introduced new infant formulas in the past, states had a choice not to provide the new infant formulas or to limit their use because the original milk-based infant formula was still available. At least one state has since introduced a contract provision that requires manufacturers to charge the same price per can for newly-introduced products when those products replace the primary contract infant formula."

[105]Victor Oliveira and David E. Davis, *Recent Trends and Economic Issues in the WIC Infant Formula Rebate Program* (Washington, DC: USDA, August 2006), 36, http://www.ers.usda.gov/publications/err22/err22.pdf (accessed August 21, 2007).

ERS and estimated that, in 2004, if the rebates per can had fallen nationally as much as they fell in some states, the decline in total rebate revenues would have been enough to force a decrease in WIC enrollment of about 400,000 participants (about 21 percent of the total).[106]

As of this writing, these increased costs were still only slowly working their way through the system. In December of 2007, for example, the Center on Budget and Policy Priorities (CBPP) estimated that "the costs associated with the new infant formula contracts [would] add $72 million in program costs during fiscal year 2008."[107]

Budget pressures

Until recently, rising rebates from infant formula manufacturers enabled WIC to expand without major increases in appropriations. But now, in addition to falling rebates from manufacturers, higher costs for food and infant formula and escalating increases in enrollment have led to substantially higher program costs.

Higher food costs. Average monthly food costs per person have also increased 8 percent over the first ten months of FY 2008, from $42.01 in October to $45.40 in July.[108] FNS also projected the average monthly food cost per person to be $43.63 in FY 2008 and $45.16 in FY 2009.[109]

Rising enrollment. Enrollment and expenditures are climbing faster than at any time since the early 1990s. As of July 2008, monthly WIC participation had grown to more than 8.9 million,

[106]U.S. Government Accountability Office, *Food Assistance: FNS Could Take Additional Steps to Contain WIC Infant Formula Costs* (Washington, DC: GAO, March 2006), 5, http://www.gao.gov/new.items/d06380.pdf (accessed July 5, 2007).

[107]Zoë Neuberger, Center on Budget and Policy Priorities, e-mail message to author, December 04, 2007, stating: "An unusually large number of states—22 and the District of Columbia—entered into new infant formula contracts at the start of fiscal year 2008 or will enter into new contracts during fiscal year 2008. In most instances, when a state enters into a new contract, its formula costs increase either because the rebate decreases (rebate levels in the previous generation of infant formula contracts were unusually high) or because under the provisions of the 2004 WIC reauthorization legislation, some states must (under their new contracts) begin to offer infant formulas with certain additives intended to make formula more similar to breast milk. The formulas with these additives are more costly. The Center estimates that the costs associated with the new infant formula contracts will add $72 million in program costs during fiscal year 2008."

[108]U.S. Department of Agriculture, Food and Nutrition Service, "Special Supplemental Nutrition Program for Women, Infants and Children (WIC)," http://www.fns.usda.gov/pd/37WIC_Monthly.htm (accessed October 3, 2008).

[109]U.S. Department of Agriculture, Food and Nutrition Service, *Special Supplemental Nutrition Program with Women, Infants and Children (WIC): August 2008 Report to Congress* (Alexandria, VA: USDA, August 2008).

an increase of about 470,000[110] from July 2007[111] and about 400,000 more than anticipated in the President's FY 2008 budget.[112] In August 2008, FNS projected WIC average monthly participation to be 8.7 million for FY 2008 and 9.0 million in FY 2009. In a marked departure from the past, about 77 percent of the July 2007/July 2008 increase of 470,000 were children ages one to four (rather than infants).

Total enrollment will undoubtedly continue to rise if the economy continues to weaken. The relaxation of WIC's putative eligibility rules allowed program enrollment to creep up in the good economic times of the 1990s. In the current economic downturn, the number and hence the enrollment of families with annual incomes below 185 percent of poverty will undoubtedly rise—creating more funding pressure on WIC agencies than there would have been if eligibility criteria had not been loosened in earlier good times. Now, as the economy slows, and more families have lower incomes, WIC agencies are straining to meet the financial costs of serving so many additional families.

Barring continued infusions of additional funding, the program will have to do a better job managing its eligibility rules. Limiting WIC recipients to those with annual incomes below 185 percent of poverty would very roughly save about $1 billion per year (even after accounting for reasonable additional costs for performing income verifications).[113] It is easy to brush aside savings of this size on the ground that, within the context of an almost $3 trillion federal budget, $1 billion is simply not a great deal of money. But tell that to congressional appropriations committees, which are constantly seeking to find additional sources of money. Since budgeting in the current fiscal environment is essentially a zero-sum game, this will require the Congress to take funds from other programs. (Of course, there is no guarantee that any savings would be put to better use.)

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[110]U.S. Department of Agriculture, Food and Nutrition Service, "Special Supplemental Nutrition Program for Women, Infants and Children (WIC)," http://www.fns.usda.gov/pd/37WIC_Monthly.htm (accessed October 3, 2008).

[111]U.S. Department of Agriculture, Food and Nutrition Service, *Special Supplemental Nutrition Program with Women, Infants and Children (WIC): August 2008 Report to Congress* (Alexandria, VA: USDA, August 2008).

[112]U.S. Department of Agriculture, Food and Nutrition Service, *Special Supplemental Nutrition Program with Women, Infants and Children (WIC): August 2008 Report to Congress* (Alexandria, VA: USDA, August 2008).

[113]Mark Prell, an economist at the USDA, estimated that the per case cost of WIC recertification for WIC agencies was about $78.37 per household. Assuming this is accurate, even if every infant on WIC required an income determination, the cost would be only about $190 million. And that does not take into account the presumed ability of states to make the eligibility determination electronically from Medicaid records and then make that information available to the WIC grantee. Mark A. Prell, "Certification Duration For Food Assistance Programs: An Economic Model With An Application to WIC," (paper, presented at Income Volatility and Implications for Food Assistance Programs II conference, Washington, DC, November 16–17, 2006), http://www.npc.umich.edu/news/events/income_volatility_agenda/PRELL_Model2.pdf (accessed October 2, 2008).

These increases in enrollment and food costs have led to an increase in current WIC expenditures, projected costs, and WIC appropriations. Since 2006, WIC appropriations have risen by about 22 percent, going from $5.46 billion to about $6.66 billion.[114]

Enrollment. WIC enrollment has grown steadily if somewhat unevenly since the program's inception in 1972. Detailed data on enrollment are only available from 1974, when WIC was permanently established and WIC clinics opened. At that time, only about 88,000 people were in the program.[115] As funding increased, enrollment also grew. In 2007, WIC served more mothers and children than ever, about 8.3 million. (See tables 3 and 4.)

In the early 1990s, much of WIC's growth was fueled by the increase in infant formula rebates.[116] The current increases seem to be a function of a combination of different factors including:

- *Medicaid and SCHIP expansions and outreach which leads to increased WIC enrollment*. According to the Congressional Budget Office, between 2002 and 2007, the estimated number of children receiving Medicaid increased from about 23 million to about 29.5 million, an increase of about 28 percent.[117]

- *Food stamp enrollment increases.* Between July 2007 and July 2008, the estimated number of food stamp recipients increased from 26.6 million to 29.1 million, an increase of about 9.4 percent.[118]

- *A weakening economy.* In the first six months of 2008, real weekly earnings decreased by

[114]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program and Participation Costs," http://www.fns.usda.gov/pd/wisummary.htm (accessed October 9, 2008); and *Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009*, P.L. 110-329, 110th Cong. 2nd Sess., http://thomas.loc.gov/cgi-bin/query/z?c110:H.R.2638.enr: (accessed October 3, 2008).

[115]Victor Oliveira, Elizabeth Racine, Jennifer Olmsted, and Linda M. Ghelfi, *The WIC Program: Background, Trends, and Issues* (Washington, DC: USDA, September 2002), 11, http://www.ers.usda.gov/publications/fanrr27/fanrr27.pdf (accessed February 1, 2006).

[116]Of course, besides the availability of funds, changes in enrollment are a function of changes in the number of people eligible for the program (caused, for example, by changes in income or demographics) and changes in eligibility standards.

[117]John Holohan and Bowen Garrett, *Rising Unemployment and Medicaid* (Washington, DC: Urban Institute, October 2001), http://www.urban.org/uploadedPDF/410306_HPOnline_1.pdf (accessed August 17, 2008); and Congressional Budget Office, "Fact Sheet for CBO's March 2008 Baseline: Medicaid," http://www.cbo.gov/budget/factsheets/2008b/medicaidBaseline.pdf (accessed August 17, 2008).

[118]U.S. Department of Agriculture, Food and Nutrition Service, "Food Stamp Program Monthly Data," http://www.fns.usda.gov/pd/34fsmonthly.htm (accessed August 17, 2008).

three percentage points, and, between 2007 and 2008, the number of the unemployed and under-employed increased by about 23 percent and about 32 percent, respectively.[119]

Recipients. Of the approximately 8.3 million people served by WIC in 2007, about 4 million or about 49 percent were children; about 2 million or about 26 percent were infants, and about 2 million or about 25 percent were women. For the women, about 11 percent of total WIC enrollment were pregnant women, about 6 percent were breastfeeding women, and about 8 percent were postpartum women.[120] (See tables 4 and 5.)

[119]Richard Bavier, "Remarks at August 25, 2008 AEI Poverty Session" (presentation, American Enterprise Institute, Washington, DC, August 25, 2008). Between July 2007 and July 2008, the number of unemployed persons increased from about 7.1 million to 8.7 million and the number of persons working part time for economic reasons (those who would like to work full time but are working part time because their hours have been reduced or because they are unable to find full time employment) increased from about 4.3 million to about 5.7 million. Bureau of Labor Statistics, *The Employment Situation: July 2008* (Washington, DC: Bureau of Labor Statistics, August 2008), http://www.bls.gov/news.release/pdf/empsit.pdf (accessed August 14, 2008).

[120]United States Department of Agriculture, Food and Nutrition Service, "Monthly Data—Agency Level, FY2007," http://www.fns.usda.gov/pd/WICAgencies2007ytd.xls (accessed December 6, 2007; file no longer available).

Table 4

WIC Participation by Recipient Category

Average Monthly Participation

FY 1980–2007

(in thousands of recipients)

	Women		Infants		Children		Total	
Fiscal year	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
1980	411	21.5%	507	26.5%	995	52.0%	1,914	100%
1981	446	21.0%	585	27.6%	1,088	51.3%	2,119	100%
1982	478	21.8%	623	28.5%	1,088	49.7%	2,189	100%
1983	542	21.4%	730	28.8%	1,265	49.9%	2,537	100%
1984	657	21.6%	825	27.1%	1,563	51.3%	3,045	100%
1985	665	21.2%	874	27.9%	1,600	51.0%	3,138	100%
1986	712	21.5%	945	28.5%	1,655	50.0%	3,312	100%
1987	751	21.9%	1,019	29.7%	1,660	48.4%	3,429	100%
1988	815	22.7%	1,095	30.5%	1,683	46.8%	3,593	100%
1989	952	23.1%	1,260	30.6%	1,907	46.3%	4,118	100%
1990	1,035	22.9%	1,412	31.3%	2,069	45.8%	4,517	100%
1991	1,120	22.9%	1,559	31.9%	2,214	45.2%	4,893	100%
1992	1,226	22.7%	1,684	31.2%	2,494	46.2%	5,403	100%
1993	1,366	23.1%	1,741	29.4%	2,814	47.5%	5,921	100%
1994	1,499	23.1%	1,786	27.6%	3,192	49.3%	6,477	100%
1995	1,577	22.9%	1,817	26.4%	3,500	50.8%	6,894	100%
1996	1,648	22.9%	1,827	25.4%	3,712	51.6%	7,188	100%
1997	1,711	23.1%	1,863	25.2%	3,833	51.7%	7,407	100%
1998	1,734	23.5%	1,883	25.6%	3,750	50.9%	7,367	100%
1999	1,743	23.8%	1,898	26.0%	3,670	50.2%	7,311	100%
2000	1,749	24.3%	1,893	26.3%	3,551	49.4%	7,192	100%
2001	1,780	24.4%	1,921	26.3%	3,605	49.3%	7,306	100%
2002	1,813	24.2%	1,929	25.8%	3,749	50.0%	7,491	100%
2003	1,857	24.3%	1,948	25.5%	3,826	50.1%	7,631	100%
2004	1,932	24.4%	2,015	25.5%	3,957	50.1%	7,904	100%
2005	1,966	24.5%	2,047	25.5%	4,009	50.0%	8,022	100%
2006	2,023	25.0%	2,076	25.7%	3,988	49.3%	8,088	100%
2007	2,093	25.3%	2,166	26.1%	4,026	48.6%	8,285	100%

Source: U.S. Department of Agriculture, Food and Nutrition Service, "Special Supplemental Nutrition Program for Women, Infants and Children (WIC): Program Participation," http://www.fns.usda.gov/pd/37WIC_Monthly.htm (accessed February 21, 2008).

Table 5

WIC Spending by Recipient Category

1999–2005

(in millions of 2007 dollars)

Fiscal year	Women		Infants		Children		All	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
1999	$1,278	26.2%	$1,052	21.5%	$2,551	52.3%	$4,881	100.0%
2000	$1,278	26.6%	$1,038	21.6%	$2,489	51.8%	$4,806	100.0%
2001	$1,313	26.8%	$1,150	23.5%	$2,440	49.7%	$4,904	100.0%
2002	$1,309	26.1%	$1,118	22.3%	$2,583	51.5%	$5,010	100.0%
2003	$1,395	27.2%	$995	19.4%	$2,734	53.4%	$5,123	100.0%
2004	$1,435	26.7%	$1,154	21.4%	$2,792	51.9%	$5,381	100.0%
2005	$1,468	28.1%	$923	17.7%	$2,830	54.2%	$5,222	100.0%

Sources: Author's calculation based on U.S. Department of Agriculture, Food and Nutrition Service, "Funding and Program Data: WIC Food Cost Reports," (various years), http://www.fns.usda.gov/wic/fundingandprogramdata/foodcostreports.htm (accessed November 14, 2007); for WIC program participation and costs, 1974–2006, see U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program and Participation Costs," http://www.fns.usda.gov/pd/wisummary.htm (accessed July 9, 2007); and for the number of women, infants, and children (to derive the total food costs), see Jay Hirschman, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to author, April 11, 2006.

Notes: The spending figures for each category consist of both food costs and nutrition services and administrative (NSA) costs.
The aggregated amount of food costs are derived from the food cost per person in each category.
The NSA costs by category are derived by distributing the total NSA cost across all categories using the same proportion as food costs by category.

Table 6 shows the historic growth in the proportion of Americans receiving WIC benefits. When WIC was established, the program served a mere 6.4 percent of American infants, but now about half of all infants receive WIC benefits,[121] as do almost a quarter of all children (ages 1–4) and more than a third of pregnant or postpartum women.

[121]For our estimated number of infants, we follow FNS and use the CPS estimate as opposed to national vital statistics. We do this because the CPS provides income data form families and households with infants. The difference between the CPS estimates and the national vital statistics is about 2 percentage points. See Joyce A. Martin, Brady E. Hamilton, Paul D. Sutton, Stephanie J. Ventura, Fay Menacker, and Sharon Kirmeyer, "Births: Final Data for 2004" *National Vital Statistics* 55, no.1 (September 29, 2006), http://www.cdc.gov/nchs/data/nvsr/nvsr55/nvsr55_01.pdf (accessed July 10, 2008); and
Brady E. Hamilton, Joyce A. Martin, and Stephanie J. Ventura, "Births: Preliminary Data from 2006" *National Vital Statistics* 56, no.7 (December 5, 2007), http://www.cdc.gov/nchs/data/nvsr/nvsr56/nv sr56_07.pdf (accessed July 10, 2008)

Table 6

WIC *Recipients* as Percent of the Relevant U.S. Population

1977–2006

Year	Categories of eligible women			Infants	Children (ages 1–4)	All categories of eligible persons
	All categories of eligible women	Pregnant women	Postpartum/ Breastfeeding women			
1977	3.7%	3.8%	3.5%	6.4%	3.8%	4.2%
1978	5.4%	5.5%	5.1%	9.2%	5.1%	5.8%
1979	6.6%	6.8%	6.3%	11.1%	6.2%	7.1%
1980	8.3%	8.6%	7.9%	14.0%	7.8%	9.0%
1981	8.9%	9.3%	8.5%	16.1%	8.2%	9.7%
1982	9.4%	9.8%	8.9%	16.9%	8.0%	9.8%
1983	10.9%	11.4%	10.3%	20.1%	9.1%	11.3%
1984	13.1%	13.7%	12.4%	22.5%	11.1%	13.4%
1985	13.0%	13.5%	12.4%	23.2%	11.4%	13.7%
1986	14.0%	14.5%	13.2%	25.2%	11.6%	14.4%
1987	14.6%	15.1%	13.9%	26.7%	11.7%	14.8%
1988	15.5%	16.1%	14.7%	28.0%	11.8%	15.3%
1989	17.6%	18.2%	16.7%	31.2%	13.2%	17.2%
1990	18.6%	19.3%	17.7%	34.0%	14.2%	18.6%
1991	20.3%	21.0%	19.4%	37.9%	14.7%	19.8%
1992	22.3%	23.1%	21.4%	41.4%	16.2%	21.7%
1993	25.4%	26.2%	24.4%	43.5%	18.0%	23.6%
1994	29.9%	28.3%	31.9%	47.6%	20.7%	26.7%
1995	30.6%	28.2%	33.4%	47.4%	22.6%	28.2%
1996	33.0%	29.9%	36.8%	49.1%	24.4%	30.0%
1997	32.5%	29.7%	35.9%	49.1%	24.9%	30.3%
1998	33.6%	30.7%	36.9%	50.7%	24.6%	30.6%
1999	32.5%	29.4%	36.0%	49.6%	23.9%	29.9%
2000	30.6%	27.4%	34.2%	46.4%	22.7%	28.3%
2001	30.5%	26.4%	35.2%	46.4%	23.9%	29.1%
2002	35.8%	30.6%	41.7%	53.9%	23.3%	30.3%
2003	35.3%	30.0%	41.2%	52.1%	23.9%	30.5%
2004	34.2%	29.1%	40.0%	50.5%	24.5%	30.7%
2005	34.9%	29.6%	40.8%	51.3%	24.9%	31.2%
2006	35.3%	30.0%	41.3%	51.2%	24.5%	31.0%

Sources: Author's calculations based on data from the following sources: For the numbers of WIC participants, see U.S. House of Representatives, Committee on Ways and Means, *1998 Green Book* (Washington, DC: U.S. Government Printing Office, 1998), 1002, table 15-32; U.S. House of Representatives, Committee on Ways and Means, *2004 Green Book* (Washington, DC: U.S. Government Printing Office, 2004): 15–115, table 15-28; and Jay Hirschman (U.S. Department of Agriculture, Food and Nutrition Service), e-mail message to Gordon Green, April 11, 2006; for the numbers of infants, see Joyce A. Martin, Brady E. Hamilton, Paul D. Sutton, Stephanie J. Ventura, Fay Menacker, and Sharon Kirmeyer, "Births: Final Data for 2004" *National Vital Statistics* 55, no.1 (September 29, 2006), http://www.cdc.gov/nchs/data/nvsr/nvsr55/nvsr55_01.pdf (accessed July 10, 2008); and
Brady E. Hamilton, Joyce A. Martin, and Stephanie J. Ventura, "Births: Preliminary Data from 2006" *National Vital Statistics* 56, no.7 (December 5, 2007), http://www.cdc.gov/nchs/data/nvsr/nvsr56/nv sr56_07.pdf (accessed July 10, 2008); for the numbers of children ages 1–4, see U.S. Census Bureau, "National Estimates by Age, Sex, Race: 1900-1979," http://www.census.gov/popest/archives/pre-1980/PE-11.html (accessed July 17, 2007); U.S. Census Bureau, *Statistical Abstract of the United States: 1999* (Washington, DC: U.S. Census Bureau, 2000): 15, table 14, http://www.census.gov/prod/99pubs/99statab/sec01.pdf (accessed July 17, 2007); and Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to author, June 14, 2007; and for breastfeeding rates, Ross Products Division of Abbott Laboratories, "Breastfeeding Trends – 2003," appendix 1, http://www.ross.com/images/library/BF_Trends_2003.pdf (accessed July 17, 2007).

Notes: Breastfeeding rates are for any breastfeeding as opposed to exclusive breastfeeding.
Consistent with common practice, the number women in each category (pregnant, postpartum, and breastfeeding) is based on the number of infants. We assume that the number of pregnant women is 75 percent of the number of infants; the number of postpartum women (including breastfeeding women within six months after giving birth) is 50 percent of the number of infants; and the number of breastfeeding women beyond six months after giving birth is 50 percent of the number of infants multiplied by the breastfeeding rate at six months.
For 1994–2003, the total population of each demographic category is adjusted for CPS miscounts as recommended by the NRC. For 2004–2006, the total population of each demographic category is unadjusted.

For our estimated number of infants, we follow FNS and use the CPS estimate as opposed to national vital statistics. We do this because the CPS provides income data form families and households with infants. The difference between the CPS estimates and the national vital statistics is about 2 percentage points. See Joyce A. Martin, Brady E. Hamilton, Paul D. Sutton, Stephanie J. Ventura, Fay Menacker, and Sharon Kirmeyer, "Births: Final Data for 2004" *National Vital Statistics* 55, no.1 (September 29, 2006), http://www.cdc.gov/nchs/data/nvsr/nvsr55/nvsr55_01.pdf (accessed July 10, 2008); and
Brady E. Hamilton, Joyce A. Martin, and Stephanie J. Ventura, "Births: Preliminary Data from 2006" *National Vital Statistics* 56, no.7 (December 5, 2007), http://www.cdc.gov/nchs/data/nvsr/nvsr56/nv sr56_07.pdf (accessed July 10, 2008)

In 2003, about 48 percent of infants on WIC consumed at least "about 54 percent of all formula sold in the United States."[122] The usual explanation given is that WIC infants consume more formula and then continue the use of formula longer (probably because it is free).

Priorities. Because WIC was once much less well-funded, federal law assigns priorities for WIC benefits based on the category under which the applicant falls.[123] At this writing, however, most WIC agencies seldom need to resort to such priority setting or waiting lists, as there is at least for now usually sufficient funding to serve all eligible applicants.[124] The USDA explains: "Although WIC is a discretionary program, it is important to note that the funding has been sufficient to provide benefits to eligible persons seeking services. There have not been

[122]Victor Oliveira, Mark Prell, David Smallwood, and Elizabeth Frazao, *WIC and the Retail Price of Infant Formula*, Food Assistance and Research Report 39 (Washington, DC: USDA, May 2004), 1, http://www.ers.usda.gov/publications/fanrr39-1/fanrr39-1.pdf (accessed August 13, 2007).

[123]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7, (January 2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed June 14, 2007). Ranked in order from highest to lowest, enrollment priorities are as follows:

1. Pregnant or breastfeeding women and infants with evident medical problems that demonstrate the need for supplemental foods;

2. Infants whose mothers had medical problems during pregnancy that demonstrated the need for supplemental foods or whose mothers were program participants;

3. Children with medical problems that demonstrate the need for supplemental foods;

4. Infants or pregnant or breastfeeding women at nutritional risk because of an inadequate dietary pattern;

5. Children at nutritional risk because of an inadequate dietary pattern;

6. Postpartum women with any nutritional risk; and

7. Individuals certified for WIC solely due homeless or migrant status and current WIC participants who could have medical or dietary problems without WIC.

[124]Victor Oliveira and David E. Davis, *Recent Trends and Economic Issues in the WIC Infant Formula Rebate Program* (Washington, DC: USDA, August 2006), 4, http://www.ers.usda.gov/publications/err22/err22.pdf (accessed August 21, 2007). See also Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 19, stating: "The last year a state had to implement a priority waiting list was 2002. States that experienced shortages of funds to serve all eligible applicants in 2002 obtained supplemental funding from the federal government."

waiting lists to participate in WIC in recent years."[125]

This could change, however, if funding pressures rise because eligibility continues to expand, per-can rebates continue to decline, or retail prices continue to rise. The next section describes the degree to which WIC eligibility has been expanded in recent years. Subsequent sections describe the elements of this expansion in eligibility and its implications for programming.

[125]U.S. Department of Agriculture, Food and Nutrition Service, Office of Analysis, Nutrition, and Evaluation, *WIC Program Coverage: How Many Eligible Individuals Participated in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): 1994 to 2003?* (Alexandria, VA: USDA, February 2006), 3, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/WICEligibles.pdf (accessed June 22, 2007).

III. Expanding Eligibility

As we saw, in 2006, about 51 percent of all infants and 41 percent of all postpartum women received WIC benefits. Although low-income families tend to have more children than the general population,[126] these figures are much higher than one would expect given WIC's putative eligibility framework. This section uses the changes in how the USDA estimates eligibility to illuminate the avenues through which eligibility and hence enrollment have expanded.

USDA's revised eligibility estimates. For years, the USDA estimated the number of WIC eligibles by simply calculating the number of categorically eligible persons in families with annual incomes below 185 percent of poverty plus those about who were on Medicaid.

Starting in the late 1990s, however, observers noted that the number of infants on WIC exceeded this simple count of eligibles. For example, under the USDA's then operative method of estimating eligibility (for simplicity, the USDA's "original methodology"), the NRC concluded that in 1998 about 91 percent of the estimated number of eligible people were participating, including 127 percent of the estimated number of eligible postpartum and breastfeeding mothers, and 128 percent of the estimated number of eligible infants.[127] (Table 9 updates these calculations with more recent CPS data.)

Some took these 100 percent-plus coverage rates as an indication that the program was enrolling many ineligible children and mothers. Besharov and Germanis, for example, report that "as program funding has increased, according to some local WIC staff, even income testing seems to have become less rigorous, with many participants having incomes over eligibility limits."[128]

Others took issue with the estimates themselves, arguing that the USDA's methodology underestimated the number of eligibles, thereby overestimating coverage rates. For example, Marianne Bitler, Janet Currie, and John Karl Scholz estimated much lower participation rates

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[126]See, for example, Lawrence B. Finer and Stanley K. Henshaw, "Disparities in Rates of Unintended Pregnancy in the United States, 1994 and 2001," *Perspectives on Sexual and Reproductive Health* 38, no. 2 (2006): 93, table 1, http://www.guttmacher.org/pubs/psrh/full/3809006.pdf (accessed January 23, 2008).

[127]Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 22. Note that this is a percentage of the estimated eligible population. It is possible that not all eligible people are participating, and that more "ineligibles" exist than the 127 percent and 128 percent participation rate suggest.

[128]Douglas J. Besharov and Peter Germanis, *Rethinking WIC: An Evaluation of the Women, Infants, and Children Program* (Washington, DC: The AEI Press, 2001), 21–22. But see Nancy Burstein et al., *WIC General Analysis Project: Profile of WIC Children* (Cambridge, MA: Abt Associates, March 2000), http://www.abtassociates.com/reports/20003076534761.pdf (accessed January 11, 2008), stating: "The authors determined that many of the income- ineligible households in their sample were in fact on Medicaid, and therefore adjunctively eligible."

when several factors are taken into account, including monthly versus annual income for eligibility determinations, the existence of adjunctive eligibility, and the length of certification periods.[129] Based on SIPP data, they estimated an overall 1998 WIC participation rate of 48 percent, not the USDA's estimate of 91 percent. They also estimated lower 1998 coverage rates for several categories of WIC recipients: 73 percent for infants (rather than 128 percent under the USDA's original methodology), 38 percent for children one to four years old (rather than 74 percent under the USDA's original methodology), and 67 percent for pregnant and postpartum women (rather than 97 percent under the USDA's original methodology).[130] (Table 9 updates these calculations with more recent CPS data.)

A 2005 GAO study on program access in means-tested programs also showed lower coverage rates than USDA estimates. The GAO estimated that, in 2001, the coverage rate for infants was between 79 and 91 percent (rather than 117 percent under the USDA's original methodology) and for children was between 41 and 45 percent (rather than 78 percent under the USDA's original methodology).[131]

Such findings led the USDA to commission the National Research Council's Committee on National Statistics to review the methodology for estimating eligibility and to develop a revised methodology. The committee found that the original methodology "failed to fully reflect

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[129]Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1162, table 7, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008).

[130]Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1160, table 6, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008); Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 22.

[131]For 2001 WIC coverage rates, see U.S. Government Accountability Office, *Means-Tested Program: Information on Program Access Can Be an Important Management Tool* (Washington, DC: GAO, March 2005), http://www.gao.gov/new.items/d05221.pdf (accessed August 16, 2007), 21–22.

To estimate coverage rates for WIC, the GAO used estimates from the Urban Institute's Transfer Income Model, version 3 (TRIM3), which draws data from the CPS and "simulates the process that a caseworker would undergo to determine eligibility by reviewing individual or household characteristics such as household composition, income, disability, and other factors as appropriate for the programs," including both monthly income rates and adjunctive eligibility status for WIC [p. 54]. The GAO did not attempt to estimate coverage rates for women because the CPS does not provide information on whether a woman is pregnant or postpartum.

For 2001 WIC coverage rates based on the original methodology, author's calculation based on U.S. Department of Agriculture, Food and Nutrition Service, Special Supplemental Nutrition Program for Women, Infants and Children (WIC): Program Participation," http://www.fns.usda.gov/pd/37WIC_Monthly.htm (accessed July 19, 2007); and Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to author, June 14, 2007.

current eligibility rules and regulations."[132]

> . . . . USDA estimates of the number of participants have come under critical scrutiny, in part because the number of infants and postpartum women who actually enrolled in the program has exceeded the number projected to be eligible by as much as 20 to 30 percent in recent years. These high coverage rates have led some members of Congress to conclude that some participants are truly ineligible, and that funding could be reduced somewhat and still meet the needs of truly eligible people who would participate under full funding (see U.S. House of Representatives, 1998). In contrast, some advocates and state WIC agencies believe that the estimates of the number of eligible persons are too low and that there are additional people who are eligible and would choose to participate, given their eligibility.
>
> With these concerns in mind, USDA asked the Committee on National Statistics of the National Research Council to convene a panel of experts to review the methods used to estimate the national number of people eligible and likely to participate in the WIC program. The panel is charged with reviewing data and methods for estimating categorical eligibility, income eligibility, adjunctive eligibility from participation in other public assistance programs, and nutritional risk among the income eligible population, as well as for estimating the participation if the program is fully funded. The panel was also asked to consider alternative methods and data for making these estimates."[133]

In 2003, a National Research Council Committee proposed an alternate methodology to estimate WIC eligibility, which the USDA largely adopted in 2006 (see table 12).[134] Using the USDA's *original* approach to estimating eligibility, WIC eligibility in 2003 was about 40 percent of all infants, about 31 percent of children ages one to four, 38 percent of pregnant women, and about 42 percent of all postpartum women. Using the USDA's *revised* methodology, for the same year, WIC eligibility rose to about 63 percent of all infants, about 53 percent of children ages one to four, 43 percent of pregnant women, and about 58 percent of all postpartum women. (As

[132]U.S. Department of Agriculture, Food and Nutrition Service, Office of Analysis, Nutrition, and Evaluation, *WIC Program Coverage: How Many Eligible Individuals Participated in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): 1994 to 2003?* (Alexandria, VA: USDA, February 2006), 1, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/WICEligibles.pdf (accessed July 9, 2007), citing Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003).

[133]Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 14.

[134]U.S. Department of Agriculture, Food and Nutrition Service, Office of Analysis, Nutrition, and Evaluation, *WIC Program Coverage: How Many Eligible Individuals Participated in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): 1994 to 2003?* (Alexandria, VA: USDA, February 2006), 1, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/WICEligibles.pdf (accessed July 9, 2007).

explained below, our estimates are even higher, in 2006, reaching 74 to 81 percent of all infants, for example.)

The USDA's revised approach is summarized below. (All of the adjustment factors given below are for 2003, the latest year for which data are available.)

- *CPS miscounts.* The revised methodology corrects for "miscounts" in the CPS of the number of infants and children, as recommended by the NRC. (The original methodology did not.) In 2003, the CPS underestimated the number of infants, requiring a 6.2 percent increase, and overestimated the number of children, requiring a 1.7 percent decrease. In other years, the correction could be for either underestimates or overestimates.[135]

- *Adjunctive eligibility.* The revised methodology increases the estimated number of eligibles by counting as adjunctively eligible those families participating in either the Food Stamp, TANF, or Medicaid programs. (The original methodology counted only some of those on Medicaid, and did not estimate the impact of the Food Stamp or TANF programs.)[136] Adjunctive eligibility can, by itself, expand eligibility over the base of those with annual incomes below 185 percent of poverty by as much as 35 percent.[137]

- *Monthly income.* The revised methodology increases the estimated number of eligibles by using monthly income instead of annual income, in conjunction with certification periods (using SIPP data). (It does not estimate these effects separately.) (The original methodology used annual income and did not factor in certification periods.)[138] Using

[135]Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 42–46; and Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to author, June 14, 2007.

[136]For infants, the USDA's adjustment factor *for adjunctive eligibility* is based on the difference between number of infants in the CPS in families with annual incomes below 185 percent of poverty (1,491,072) and the additional infants above 185 percent of poverty participating in the Food Stamp, TANF, and Medicaid programs (346,637); for children, the numbers were 6,308,271 and 1,245,213, respectively. For infants and all categories of women, the new adjustment factor is about 1.23 (times the number of infants in the CPS with annual incomes below 185 percent of poverty); for children, the new adjustment factor is about 1.20 (times the number of children in the CPS with annual incomes below 185 percent of poverty).

[137]This is an independent effect, and could be smaller when present in combination with the other practices discussed in this paper.

[138]For infants, the USDA's adjustment factor *for monthly income* is based on the difference between the number of infants in the CPS in families with annual incomes below 185 percent of poverty plus those who are adjunctively eligible (1,837,709) and the additional eligible infants based on monthly income (514,559); for children, the numbers were 7,553,484 and 755,348, respectively. For infants and for all categories of women, the new adjustment factor is about 1.28 (times the number of infants with annual incomes below 185 percent of poverty); for children, the new adjustment factor is about 1.10 (times the number of children in the CPS with annual incomes below 185 percent of poverty).

monthly income can, by itself, expand eligibility over the base of those with annual incomes below 185 percent of poverty by as much as 20 percent.[139]

- *Certification periods.* The revised methodology increases the estimated number of eligibles by taking into account certification periods, which keep recipients eligible—for six or twelve months—regardless of income changes. (The original methodology made no adjustment for certification periods.) The adjustment factor of this correction is combined with the adjustment factor for monthly income (see above). WIC's six- and twelve-month certification periods can, by themselves, expand eligibility over the base of those with annual incomes below 185 percent of poverty by as much as 30 percent.[140]

- *Employed while pregnant.* Overall, the revised methodology increases the estimated number of eligibles by using monthly income. Doing so, for example, captures the income declines associated with leaving work or reducing the hours worked while pregnant. This adjustment slightly lowers eligibility estimates, but taking into account that pregnancies are only nine months long and that many mothers are not eligible for that entire period. (Because the original methodology was based on annual income, it assumed that pregnant women were income-eligible during their entire nine-month pregnancy.)[141]

- *Multiple births and infant deaths.* The revised methodology decreases the estimated number of eligibles by taking into account multiple births and infant deaths on the count of pregnant women. (The original methodology simply assumed that there was one pregnant woman for every infant born.)[142] No similar adjustment is made for the number of breastfeeding and postpartum women.

- *Breastfeeding rates.* The revised methodology increases the estimated number of eligibles

[139]This is an independent effect, and could be smaller when present in combination with the other practices discussed in this paper.

[140]This is an independent effect, and could be smaller when present in combination with the other practices discussed in this paper.

[141]For pregnant women, the USDA's adjustment factor *for the length of the pregnancy* is based on the number of fully eligible infants (2,357,452) and the number of women who were not income-eligible for all nine months of their pregnancy (1,100,928). Because pregnant women are pregnant for only three-quarters of the year (nine months) and often are not income-eligible for a portion of that time, the number of infants is multiplied by 0.53 to estimate the number of pregnant women. The new adjustment factor for pregnant women is about 0.53 (times the number of "fully eligible infants," the number of eligible infants *after* adjusting for the number in the CPS below 185 percent of poverty; adjunctive eligibility; monthly instead of annual income; income eligibles in the U.S. territories; and nutritional risk factors).

[142]For pregnant women, the USDA's adjustment factor *for multiple births and infant* deaths is based on the number of fully eligible infants (2,357,452) and multiple births less infant deaths (8,015). The new adjustment factor for pregnant women is about 0.66 (times the number of eligible infants).

by using more current (and higher) estimates of the proportion of new mothers who breastfeed and who can be WIC eligible for an entire year. (The original methodology used lower breastfeeding rates that were derived from the 1988 National Maternal Infant Health Survey.)[143]

- *Nutritional risk.* The revised methodology increases the estimated number of eligibles by assuming that 97 percent of all income-eligible infants, 99 percent of all of all income-eligible children, and 94 percent of all of all income-eligible women are at nutritional risk. (The original methodology assumed that only 95 percent of infants, 75 percent of children, 91 percent of pregnant women, 89 percent of breastfeeding women, and 93 percent of postpartum women were at nutritional risk.) The new adjustment factors are as indicated. The continuing failure to screen for nutritional risk, however, may have expanded eligibility over the base of those with annual incomes below 185 percent of poverty by as much as 25 percent

As described in the following pages, taken together, these modifications substantially increased the estimated number of WIC eligibles, and significantly decreased estimated program coverage rates. Across all categories of WIC eligible persons, the percent of the relevant U.S. population estimated to be eligible for WIC in 2003 rose from about 33 percent to about 54 percent. The proportion of eligible infants rose from about 40 percent to about 63 percent; for children, it increased from about 31 percent to about 53 percent; and for pregnant and postpartum women, it increased from about 34 percent to about 49 percent.[144] (The difference between the original and revised methodology would be even larger had we not adopted for the original methodology the correction for CPS miscounts embedded in the revised methodology.) (See table 7.)

[143]For breastfeeding women, the USDA's adjustment factor *for breastfeeding rates* is based on the number of fully eligible infants (2,357,452) and the number of non-breastfeeding women (1,677,568). The new adjustment factor for breastfeeding women is about 0.29 (times the number of eligible infants).

[144]In a earlier estimate based on similar but not identical adjustments, Bitler, Currie, and Scholz estimate that, in 1998, approximately 58 percent of infants, 54 percent of pregnant and postpartum women, and 57 percent of children (ages one to five) were eligible for WIC in a given month. Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1139–1179, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008).

Table 7

WIC *Eligibles* as Percent of the Total Population in that Category

Original and Revised USDA Estimates

1994–2003

Year	Number of categorically eligible persons	Original USDA method		Revised USDA method	
		Total number of persons eligible for WIC	Ratio of WIC eligibles to the categorically eligible population	Total number of persons eligible for WIC	Ratio of WIC eligibles to the categorically eligible population
All					
1994	24,785,777	9,119,860	36.8%	13,738,270	55.4%
1995	24,671,474	8,917,653	36.1%	13,522,132	54.8%
1996	24,280,482	8,761,043	36.1%	13,295,747	54.8%
1997	24,368,421	8,304,950	34.1%	12,437,931	51.0%
1998	24,134,362	8,062,953	33.4%	12,181,822	50.5%
1999	24,312,395	7,808,902	32.1%	12,031,003	49.5%
2000	25,481,873	7,927,186	31.1%	12,459,114	48.9%
2001	25,292,176	8,259,439	32.7%	13,046,096	51.6%
2002	24,800,702	8,066,491	32.5%	13,001,686	52.4%
2003	25,196,551	8,297,018	32.9%	13,468,545	53.5%
Infants					
1994	3,775,176	1,586,509	42.0%	2,311,351	61.2%
1995	3,830,657	1,628,236	42.5%	2,439,830	63.7%
1996	3,739,325	1,579,571	42.2%	2,388,734	63.9%
1997	3,804,496	1,505,617	39.6%	2,195,401	57.7%
1998	3,730,709	1,454,434	39.0%	2,173,649	58.3%
1999	3,810,833	1,441,135	37.8%	2,193,329	57.6%
2000	4,094,328	1,552,933	37.9%	2,423,706	59.2%
2001	4,146,550	1,636,027	39.5%	2,507,582	60.5%
2002	3,586,340	1,433,354	40.0%	2,205,820	61.5%
2003	3,759,908	1,485,295	39.5%	2,357,452	62.7%
Children 1–4					
1994	15,919,776	5,583,384	35.1%	8,996,479	56.5%
1995	15,638,785	5,287,713	33.8%	8,505,108	54.4%
1996	15,461,284	5,240,107	33.9%	8,381,717	54.2%
1997	15,313,721	4,949,664	32.3%	7,887,295	51.5%
1998	15,206,775	4,822,310	31.7%	7,653,618	50.3%
1999	15,153,058	4,598,047	30.3%	7,452,274	49.2%
2000	15,626,826	4,465,917	28.6%	7,364,657	47.1%
2001	15,288,624	4,612,048	30.2%	7,767,621	50.8%
2002	16,136,105	4,873,066	30.2%	8,345,813	51.7%
2003	16,120,133	4,987,249	30.9%	8,498,839	52.7%

Table 7

WIC *Eligibles* as Percent of the Total Population in that Category

Original and Revised USDA Estimates

1994–2003

Year	Number of categorically eligible persons	Original USDA method		Revised USDA method	
		Total number of persons eligible for WIC	Ratio of WIC eligibles to the categorically eligible population	Total number of persons eligible for WIC	Ratio of WIC eligibles to the categorically eligible population
All categorically eligible women					
1994	5,090,825	1,949,967	38.3%	2,430,440	47.7%
1995	5,202,032	2,001,704	38.5%	2,577,194	49.5%
1996	5,079,873	1,941,365	38.2%	2,525,296	49.7%
1997	5,250,204	1,849,670	35.2%	2,355,235	44.9%
1998	5,196,878	1,786,209	34.4%	2,354,555	45.3%
1999	5,348,504	1,769,720	33.1%	2,385,400	44.6%
2000	5,760,719	1,908,336	33.1%	2,670,751	46.4%
2001	5,857,002	2,011,364	34.3%	2,770,893	47.3%
2002	5,078,257	1,760,072	34.7%	2,450,053	48.2%
2003	5,316,510	1,824,473	34.3%	2,612,254	49.1%
Pregnant women					
1994	2,831,382	1,133,580	40.0%	1,176,350	41.5%
1995	2,872,993	1,163,657	40.5%	1,241,738	43.2%
1996	2,804,494	1,128,580	40.2%	1,215,733	43.3%
1997	2,853,372	1,075,274	37.7%	1,117,338	39.2%
1998	2,798,032	1,038,382	37.1%	1,106,267	39.5%
1999	2,858,125	1,028,797	36.0%	1,116,283	39.1%
2000	3,070,746	1,109,379	36.1%	1,248,820	40.7%
2001	3,109,913	1,169,273	37.6%	1,292,037	41.5%
2002	2,689,755	1,023,188	38.0%	1,136,554	42.3%
2003	2,819,931	1,060,627	37.6%	1,214,682	43.1%
Postpartum women					
1994	1,175,967	568,650	48.4%	786,761	66.9%
1995	1,185,588	583,738	49.2%	811,264	68.4%
1996	1,168,539	566,142	48.4%	794,274	68.0%
1997	1,209,830	539,401	44.6%	701,400	58.0%
1998	1,199,423	520,895	43.4%	646,778	53.9%
1999	1,209,939	516,086	42.7%	657,896	54.4%
2000	1,289,713	556,510	43.1%	730,122	56.6%
2001	1,306,163	586,555	44.9%	743,209	56.9%
2002	1,131,490	513,273	45.4%	649,180	57.4%
2003	1,255,809	532,054	42.4%	725,703	57.8%

Table 7

WIC *Eligibles* as Percent of the Total Population in that Category

Original and Revised USDA Estimates

1994–2003

Year	Number of categorically eligible persons	Original USDA method		Revised USDA method	
		Total number of persons eligible for WIC	Ratio of WIC eligibles to the categorically eligible population	Total number of persons eligible for WIC	Ratio of WIC eligibles to the categorically eligible population
Breastfeeding women					
1994	1,083,476	247,736	22.9%	467,329	43.1%
1995	1,143,451	254,309	22.2%	524,192	45.8%
1996	1,106,840	246,644	22.3%	515,289	46.6%
1997	1,187,003	234,994	19.8%	536,497	45.2%
1998	1,199,423	226,931	18.9%	601,510	50.1%
1999	1,280,440	224,837	17.6%	611,221	47.7%
2000	1,400,260	242,447	17.3%	691,809	49.4%
2001	1,440,926	255,537	17.7%	735,647	51.1%
2002	1,257,012	223,611	17.8%	664,319	52.8%
2003	1,240,770	231,793	18.7%	671,869	54.1%

Sources: Author's calculations based on data from the following sources: For the numbers of WIC participants, see U.S. House of Representatives, Committee on Ways and Means, *1998 Green Book* (Washington, DC: U.S. Government Printing Office, 1998): 1002, table 15-32; U.S. House of Representatives, Committee on Ways and Means, *2004 Green Book* (Washington, DC: U.S. Government Printing Office, 2004): 15–115, table 15-28; and Jay Hirschman, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to Gordon Green, April 11, 2006; for the numbers of infants, see Joyce A. Martin et al., "Births: Final Data for 2002," *National Vital Statistics Reports* 54, no. 2 (September 8, 2005): 29, table 1, http://www.cdc.gov/nchs/data/nvsr/nvsr54/nvsr54_02.pdf (accessed July 17, 2007); and Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to author, June 14, 2007; for the numbers of children ages 1–4, see U.S. Census Bureau, "National Estimates by Age, Sex, Race: 1900-1979," http://www.census.gov/popest/archives/pre-1980/PE-11.html (accessed July 17, 2007); U.S. Census Bureau, *Statistical Abstract of the United States: 1999* (Washington, DC: U.S. Census Bureau, 2000), 15, table 14, http://www.census.gov/prod/99pubs/99statab/sec01.pdf (accessed July 17, 2007); and Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to author, June 14, 2007; for breastfeeding rates, Ross Products Division of Abbott Laboratories, "Breastfeeding Trends – 2003," appendix 1, http://www.ross.com/images/library/BF_Trends_2003.pdf (accessed July 17, 2007); for the original USDA methodology, see Michele Ver Ploeg and David M. Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 27–29; and for the base figures and revised USDA methodology, Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to author, June 14, 2007; and Linda Giannarelli and Sandi Nelson, *How Many Women, Infants, and Children are Eligible for WIC? Estimates from the CPS and SIPP* (Washington, DC: The Urban Institute, March 2006).

Notes: Consistent with common practice, the number of women in each category (pregnant, postpartum, and breastfeeding women) is based on the number of infants. We assume that the number of pregnant women is 75 percent of the number of infants, because the duration of pregnancy is usually nine months (75 percent of 12 months). We assume that the number of postpartum women (including breastfeeding women within six months after giving birth) is 50 percent of the number of infants, as the certification period (six months) for them is half of that for infants. Further, we assume that the number of breastfeeding women beyond six months after giving birth is 50 percent of the number of infants breastfeeding at six months, because categorically eligible breastfeeding women are required to breastfeed their children at six months and their certification period (six months) is half of that for infants.
The total number of persons eligible under the original methodology is derived by multiplying the USDA's adjusted count of the number of persons under 185 percent of poverty (as proposed by the NRC) by the percent adjustments of the original methodology described in Michele Ver Ploeg and David M. Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003).

The foregoing describes the increased estimated number of eligibles caused by the USDA's revised methodology. This increase was not the product of an increase in poverty. As table 8 shows, shifting from the USDA's original methodology to its revised one substantially raises the proportion eligible with annual incomes above 185 percent of poverty. For example, the proportion of eligible infants rises about 59 percent, going from nearly 100 percent to about 158 percent of those with annual incomes below 185 percent of poverty. For children ages one to four, it rises more than 70 percent, going from 79 percent to 135 percent of those with annual incomes below 185 percent of poverty.

Table 8

WIC *Eligibles* as a Percent of Those with Annual Family Incomes below 185% of Poverty

Original vs. Revised USDA Methodology

Infants and Children (ages 1–4)

1994–2003

Year	Number of persons below 185% of poverty	Original USDA method		Revised USDA method	
		Total number of persons eligible for WIC	Ratio of WIC eligibles to those below 185% of poverty	Total number of persons eligible for WIC	Ratio of WIC eligibles to those below 185% of poverty
All					
1994	8,665,027	7,169,893	82.7%	11,307,830	130.5%
1995	8,328,816	6,915,949	83.0%	10,944,938	131.4%
1996	8,218,562	6,819,678	83.0%	10,770,451	131.1%
1997	7,771,821	6,455,281	83.1%	10,082,696	129.7%
1998	7,556,929	6,276,744	83.1%	9,827,267	130.0%
1999	7,256,370	6,039,183	83.2%	9,645,603	132.9%
2000	7,200,514	6,018,850	83.6%	9,788,363	135.9%
2001	7,471,779	6,248,075	83.6%	10,275,203	137.5%
2002	7,600,541	6,306,420	83.0%	10,551,633	138.8%
2003	7,799,343	6,472,545	83.0%	10,856,291	139.2%
Infants					
1994	1,593,633	1,586,509	99.6%	2,311,351	145.0%
1995	1,635,916	1,628,236	99.5%	2,439,830	149.1%
1996	1,586,603	1,579,571	99.6%	2,388,734	150.6%
1997	1,511,664	1,505,617	99.6%	2,195,401	145.2%
1998	1,459,800	1,454,434	99.6%	2,173,649	148.9%
1999	1,446,324	1,441,135	99.6%	2,193,329	151.6%
2000	1,559,610	1,552,933	99.6%	2,423,706	155.4%
2001	1,643,811	1,636,027	99.5%	2,507,582	152.5%
2002	1,438,439	1,433,354	99.6%	2,205,820	153.3%
2003	1,491,072	1,485,295	99.6%	2,357,452	158.1%
Children 1–4					
1994	7,071,394	5,583,384	79.0%	8,996,479	127.2%
1995	6,692,900	5,287,713	79.0%	8,505,108	127.1%
1996	6,631,959	5,240,107	79.0%	8,381,717	126.4%
1997	6,260,157	4,949,664	79.1%	7,887,295	126.0%
1998	6,097,129	4,822,310	79.1%	7,653,618	125.5%
1999	5,810,046	4,598,047	79.1%	7,452,274	128.3%
2000	5,640,904	4,465,917	79.2%	7,364,657	130.6%
2001	5,827,968	4,612,048	79.1%	7,767,621	133.3%
2002	6,162,102	4,873,066	79.1%	8,345,813	135.4%
2003	6,308,271	4,987,249	79.1%	8,498,839	134.7%

Source: Author's calculation based on data from Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to author, June 14, 2007.

Notes: From the tables provided by Edward Herzog, the total number of estimated eligibles was derived by adjusting the number below 185 percent of the poverty guidelines by accounting for adjunctive eligibility, monthly income variations, income eligibles in the U.S. territories, and nutritional risk. These adjustments vary in size from year to year. The ratio of WIC eligibles to those below 185 percent of poverty was derived by dividing the total number of estimated eligibles by the number of persons below 185 percent of the poverty guidelines. The figures exclude persons with family incomes at 185 percent of the federal poverty guideline, although the WIC regulations on income eligibility include such persons. This exclusion, however, has very slight, if any, effects on the distribution, because few eligible persons have family incomes that coincide exactly with the cutoffs of 185 percent of the guideline. For example, according to Sandi Nelson, a researcher at the Urban Institute, in the CPS March data between 1995 and 2006, only in two years were there a tiny number of such cases (4 cases in 2004 and 5 cases in 2006). See Edward Herzog, email message to the author, August 8, 2007.
The total number of persons under 185 percent of poverty is the USDA's adjusted count to correct for the miscounts in the CPS (as proposed by the NRC). The total number of persons eligible under the original methodology is derived by multiplying the adjusted count of the persons under 185 percent of poverty by the percent adjustments of the original methodology described in Michele Ver Ploeg and David M. Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003).

More "unserved" families. The large increase in estimated eligibility under the USDA's revised approach has sharply lowered calculated coverage rates, that is, the percent of estimated WIC eligibles actually enrolled in the program. Table 9 shows that, using the USDA's original methodology, participation of infants and postpartum women greatly exceeded estimated eligibility in recent years, with coverage rates as high as 135 percent for infants and postpartum/breastfeeding women, and overall WIC participation approaching full coverage of all eligible persons. That is, in some categories, many more were participating than estimated to be eligible.

The USDA's revised methodology substantially lowers WIC's estimated coverage rates. For example, the 2003 coverage estimate for infants (the last year with available data) falls from about 132 percent to about 83 percent. The coverage rates for postpartum women fall from about 135 percent to about 74 percent, and overall from about 93 percent to about 57 percent. This, of course, changes the earlier conclusion that WIC is fully-funded (and in some categories, drastically overfunded) to a view that WIC participation (and funding) still needs to be substantially increased.

Actually, even these are probably a slight overstatement of coverage rates, because they assume that everyone on WIC is eligible. In this regard, the WIC Income Verification Study, conducted in 1988 found that 5.7 percent of WIC recipients should not have been eligible because their income was too high.[145] Ten years later, the National Survey of WIC Participants, 1998, estimated ineligibility at 4.5 percent.[146]

The lower coverage or participation rates for children should perhaps be explained. A significant drop-off in WIC participation occurs among families with older children. Theoretically, a mother who starts in a WIC program when she is pregnant should continue to receive WIC for herself or her child until her youngest child reaches age five (assuming continued income eligibility and nutritional risk). Participation drops off rapidly after the first year, however. Thus, in 2006, about 2.3 million infants participated in the program, but only about 1.5 million one-year-olds did. With each successive year of age, children's participation fell—with

[145]U.S. General Accounting Office, "Efforts to Control Fraud and Abuse in the WIC Program Can Be Strengthened" (Washington, DC: GAO, August 1999) http://www.gao.gov/archive/1999/rc99224.pdf (accessed November 29, 2007), p. 23; U.S. Department of Agriculture, "Annual Report for Fiscal Year 2003: Report on Performance and Accountability" (Washington, DC: U.S. Department of Agriculture, January 2004): 286, http://www.ocfo.usda.gov/usdarpt/par2003/pdf/par09.pdf (accessed November 29, 2007).

[146]U.S. Department of Agriculture, "Annual Report for Fiscal Year 2003: Report on Performance and Accountability" (Washington, DC: U.S. Department of Agriculture, January 2004): 286, http://www.ocfo.usda.gov/usdarpt/par2003/pdf/par09.pdf (accessed November 29, 2007).

only 700,000 four-year-olds in the program.[147]

Although part of the drop-off may be a result of the difference in eligibility criteria for infants and children, as well as the fact that family incomes tend to be higher as children grow older, the primary factor is probably the lesser value of the total food package once the mother is no longer eligible to receive benefits for herself. For example, in 2004, the value of a food package for a breastfeeding mother and her infant was worth about $165 per month, compared to just $37 for only one child.[148] After a while, many mothers may simply decide that the small amount of food is not worth the time or trouble of continued participation. (In a survey of WIC recipients, the supplemental food that WIC provides, and not nutritional counseling, was listed as the most attractive program attribute among mothers in the prenatal and postpartum components.)[149]

[147]U.S. Department of Agriculture, Food and Nutrition Service, *WIC Participant and Program Characteristics 2006* (Alexandria, VA: USDA, December 2007), vi, exhibit E.1, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/pc2006.pdf (accessed April 1, 2008).

[148]See U.S. Department of Agriculture, Food and Nutrition Service, "Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): Revisions in the WIC Food Packages," *Federal Register* 71, no. 151 (August 2006): 44844, 44853, http://www.fns.usda.gov/wic/regspublished/foodpackagesrevisions-proposedrulepdf.pdf (accessed June 14, 2007).

[149]Mary Kay Fox et al., *The WIC Nutrition Education Assessment Study: Executive Summary* (Cambridge, MA: Abt Associates, 1999), ix, http://www.fns.usda.gov/oane/menu/Published/WIC/FILES/momexec.pdf (accessed December 13, 2007), stating "This was the only program characteristic that was consistently included in the top three positive aspects of the WIC Program."

Table 9

WIC Coverage Rates

Original vs. Revised USDA Methodology

1994–2003

Year and category	Total enrolled	Original USDA method		Revised USDA method	
		Total eligible	Coverage rate (enrollees as a % of estimated eligibles)	Total eligible	Coverage rate (enrollees as a % of estimated eligibles)
All					
1994	6,618,898	9,119,860	72.6%	13,738,269	48.2%
1995	6,947,895	8,917,653	77.9%	13,522,132	51.4%
1996	7,279,085	8,761,043	83.1%	13,295,747	54.7%
1997	7,385,265	8,304,950	88.9%	12,437,931	59.4%
1998	7,378,499	8,062,953	91.5%	12,181,822	60.6%
1999	7,258,024	7,808,902	92.9%	12,031,003	60.3%
2000	7,211,494	7,927,186	91.0%	12,459,114	57.9%
2001	7,363,287	8,259,439	89.1%	13,046,096	56.4%
2002	7,514,184	8,066,491	93.2%	13,001,686	57.8%
2003	7,684,365	8,297,018	92.6%	13,468,545	57.1%
Infants					
1994	1,796,083	1,586,509	113.2%	2,311,351	77.7%
1995	1,816,872	1,628,236	111.6%	2,439,830	74.5%
1996	1,834,936	1,579,571	116.2%	2,388,734	76.8%
1997	1,868,648	1,505,617	124.1%	2,195,401	85.1%
1998	1,893,036	1,454,434	130.2%	2,173,649	87.1%
1999	1,891,698	1,441,135	131.3%	2,193,329	86.2%
2000	1,899,835	1,552,933	122.3%	2,423,706	78.4%
2001	1,925,665	1,636,027	117.7%	2,507,582	76.8%
2002	1,931,632	1,433,354	134.8%	2,205,820	87.6%
2003	1,959,486	1,485,295	131.9%	2,357,452	83.1%
Children 1–4					
1994	3,298,240	5,583,384	59.1%	8,996,478	36.7%
1995	3,541,696	5,287,713	67.0%	8,505,108	41.6%
1996	3,769,028	5,240,107	71.9%	8,381,717	45.0%
1997	3,807,929	4,949,664	76.9%	7,887,295	48.3%
1998	3,741,169	4,822,310	77.6%	7,653,618	48.9%
1999	3,629,042	4,598,047	78.9%	7,452,274	48.7%
2000	3,551,309	4,465,917	79.5%	7,364,657	48.2%
2001	3,648,665	4,612,048	79.1%	7,767,621	47.0%
2002	3,763,862	4,873,066	77.2%	8,345,813	45.1%
2003	3,850,275	4,987,249	77.2%	8,498,839	45.3%

Table 9

WIC Coverage Rates

Original vs. Revised USDA Methodology

1994–2003

Year and category	Total enrolled	Original USDA method		Revised USDA method	
		Total eligible	Coverage rate (enrollees as a % of estimated eligibles)	Total eligible	Coverage rate (enrollees as a % of estimated eligibles)
Pregnant women					
1994	802,695	1,133,580	70.8%	1,176,350	68.2%
1995	811,146	1,163,657	69.7%	1,241,738	65.3%
1996	837,961	1,128,580	74.2%	1,215,733	68.9%
1997	848,602	1,075,274	78.9%	1,117,338	75.9%
1998	858,551	1,038,382	82.7%	1,106,267	77.6%
1999	841,256	1,028,797	81.8%	1,116,283	75.4%
2000	841,101	1,109,379	75.8%	1,248,820	67.4%
2001	822,186	1,169,273	70.3%	1,292,037	63.6%
2002	823,681	1,023,188	80.5%	1,136,554	72.5%
2003	845,071	1,060,627	79.7%	1,214,682	69.6%
Postpartum /Breastfeeding women					
1994	721,880	816,386	88.4%	1,254,090	57.6%
1995	778,182	838,047	92.9%	1,335,456	58.3%
1996	837,160	812,785	103.0%	1,309,563	63.9%
1997	860,087	774,395	111.1%	1,237,897	69.5%
1998	885,743	747,826	118.4%	1,248,288	71.0%
1999	896,028	740,923	120.9%	1,269,117	70.6%
2000	919,249	798,957	115.1%	1,421,931	64.6%
2001	966,772	842,092	114.8%	1,478,856	65.4%
2002	995,011	736,884	135.0%	1,313,499	75.8%
2003	1,029,533	763,846	134.8%	1,397,571	73.7%

Sources: Author's calculations based on data from the following sources: For the numbers of WIC participants, see U.S. House of Representatives, Committee on Ways and Means, *1998 Green Book* (Washington, DC: U.S. Government Printing Office, 1998): 1002, table 15-32; U.S. House of Representatives, Committee on Ways and Means, *2004 Green Book* (Washington, DC: U.S. Government Printing Office, 2004): 15–115, table 15-28; and Jay Hirschman, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to Gordon Green, April 11, 2006; for the original USDA methodology, see Michele Ver Ploeg and David M. Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 27–29; and for the base figures and revised USDA methodology, Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to author, June 14, 2007; and Linda Giannarelli and Sandi Nelson, *How Many Women, Infants, and Children are Eligible for WIC? Estimates from the CPS and SIPP* (Washington, DC: The Urban Institute, March 2006).

Note: The total number of persons eligible under the original methodology is derived by multiplying the USDA's adjusted count of the number of persons under 185 percent of poverty (as proposed by the NRC) by the percent adjustments of the original methodology described in Michele Ver Ploeg and David M. Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003).

Higher recipient incomes and more horizontal inequity. The actual income of WIC recipients is the subject of some dispute. According to the USDA's WIC Participant and Program Characteristics survey (WPPC), which collects income data from WIC agencies,[150] in 2004, about 60 percent of WIC participants had family incomes at or below poverty, about 20 percent had annual incomes between 100 and 150 percent of poverty, and only about 8 percent had annual incomes between 150 and 185 percent of poverty, with a bare 2 percent above 185 percent of poverty (see table 10).[151] (There is no income data for about 11 percent, presumably because they are adjunctive eligible for WIC and no income data are collected from them.)

Another USDA survey, the 1998 National Survey of WIC Participants and their Local Agencies, often called simply the National Survey of WIC Participants (NSWP), collected income data from a stratified sample of WIC-certified persons in twenty-five states.[152] It found roughly similar incomes to those in the WPPC: about 62 percent of WIC participants had family incomes at or below poverty, about 22 percent had annual incomes between 100 and 150 percent of poverty, about 7 percent had annual incomes between 150 and 185 percent of poverty, and about 6 percent above 185 percent of poverty (with about 3 percent having no income data).

Both of these USDA surveys, however, seem to understate substantially the incomes of WIC recipients—at least as conventionally measured by the Census Bureau's definition of *annual family income*. Thus, two Census Bureau surveys regularly find that WIC families have substantially higher incomes than reported in either of the USDA surveys.

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[150]U.S. Department of Agriculture, Food and Nutrition Service, *WIC Participant and Program Characteristics 2004* (Alexandria, VA, March 2006), 7, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/pc2000.pdf (accessed June 4, 2007), stating: "The methodology used for PC2004 was first developed for the 1992 report. The 1992 report on WIC Participant and Program Characteristics (PC92) was substantially different from earlier reports with regard to collecting data on WIC participation. FNS developed a prototype reporting system that allows acquisition of all participation data through the automated transfer of an agreed-upon set of data elements. State WIC agencies download routinely collected information from their existing automated client and management information systems. State and local WIC staff obtain these data to certify applicant eligibility for WIC benefits, to guide nutrition education, and to issue food instruments. This Minimum Data Set (MDS) was developed by FNS working with the Information Committee of the National WIC Association and the Centers for Disease Control and Prevention (CDC)."

[151]U.S. Department of Agriculture, Food and Nutrition Service, *WIC Participant and Program Characteristics 2004* (Alexandria, VA: USDA, March 2006), viii, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/pc2000.pdf (accessed June 4, 2007).

[152]Nancy Cole, David Hoaglin, and John Kirlin, *National Survey of WIC Participants: Final Report* (Alexandria, VA: USDA, October 2001), 20, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/WICSurvey.pdf (accessed October 3, 2007). The survey "used hierarchical cluster sampling to obtain a national probability sample of WIC participants." It excluded WIC enrollees who did not "pick up their current food instruments," defined by the USDA as "a voucher, check, electronic benefits transfer card (EBT), coupon or other document which is used by a participant to obtain supplemental foods." U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.2, (2007): 316, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed December 4, 2007).

- According to the Current Population Survey (CPS), in 2006, only about 48 percent of WIC participants had *annual* family incomes at or below poverty, about 23 percent had annual incomes between 100 and 150 percent of poverty, only about 11 percent had annual incomes between 150 and 185 percent of poverty, and about 18 percent had annual incomes above 185 percent of poverty—about 15 percent had annual incomes between 200 and 300 percent of poverty and about 5 percent had annual incomes over 300 percent of poverty.[153]

- According to the Survey of Income and Program Participation (SIPP), in 2004, only about 46 percent of WIC participants had *monthly* family incomes at or below poverty, about 21 percent had monthly incomes between 100 and 150 percent of poverty, only 11 percent had monthly incomes between 150 and 185 percent of poverty, and about 22 percent had monthly incomes above 185 percent of poverty—most of whom had monthly incomes above 200 percent of poverty.[154]

(See table 10.)

Some program advocates challenge the Census Bureau's CPS and SIPP data and claim that the USDA's WIC Participant and Program Characteristics (WPPC) survey is more accurate than either the CPS or the SIPP. For example, Robert Greenstein of the Center on Budget and Policy Priorities argues that:

> I think using the CPS data for this purpose is highly problematic. As you know, the CPS data reflect annual income. As a result, the period the CPS data cover and the period of WIC receipt may match poorly in many circumstances, such as when an unemployed family receives WIC for a couple of months at the start of the year but then gets a decent paying job and leaves the program. Furthermore, the CPS data have an extremely large undercount [of WIC recipients so that it may not be representative].
>
> For these reasons, the more appropriate data to use are those from the biennial WIC Participant and Program Characteristics survey, conducted for USDA by Abt Associates.
>
> A final piece of evidence is USDA's analysis of the participation effects of eliminating

[153]Author's calculations based on U.S. Census Bureau, DataFerrett, Current Population Survey, Annual Social and Economic (ASEC) Supplement, 2001-2006; and Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1139–1179, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008).

[154]Richard Bavier e-mail message to author, June 24, 2007; and Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1139–1179, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008).

> Medicaid adjunctive eligibility for WIC participants at or above 250% of poverty. USDA has estimated this would remove 5,000 participants from the WIC program—or 0.06% of the caseload. Since Medicaid adjunctive eligibility is basically the only way that someone at that income level can get into WIC, this indicates that the share of WIC participants who are in that income range is pretty minuscule.[155]

Others have concluded otherwise, however. Bitler, Currie, and Scholz, for example, conclude that the CPS and the SIPP may be more accurate because: "Incomes frequently fluctuate over the year and people may join the program when their incomes are temporarily low. People may also have opportunities to shield some income from WIC administrators. Moreover, the CPS and SIPP are designed to elicit accurate income information and, if anything, comparisons of consumption and income data suggest that the surveys undercount income."[156] Perhaps more important, they argue, unlike the CPS and SIPP, the USDA data do not include families that are adjunctively eligible, and often have higher incomes (as described below). In their words:

> It is not clear whether the CPS and SIPP or the National Survey of WIC Participants provides more reliable income data. The WIC program has income verification procedures whereby, for example, recipients bring in paycheck stubs to document income. But incomes frequently fluctuate over the year and people may join the program when their incomes are temporarily low. People may also have opportunities to shield some income from WIC administrators. [FN: A WIC clinic visited by one of the authors was explicit about the fact that they used the lowest of monthly income, annual income, or year-to-date income in order to determine eligibility for the program. An alternative reason for administrative data to be lower is that some states did not report income for adjunctively-eligible persons. If adjunctively-eligible persons have incomes higher than do other WIC recipients, omitting them will tend to bias average income downwards in the administrative data. However, even if we focus on ADF recipients who were income eligible for WIC, we find that incomes are 15 percent higher than in the administrative data.] Moreover, the CPS and SIPP are designed to elicit accurate income information and, if anything, comparisons of consumption and income data suggest that the surveys *undercount* income (see, for example, Meyer and Sullivan, 2002). Hence, we think (though we cannot conclusively demonstrate) that the CPS and particularly the SIPP provide the most accurate available picture of the resources available to families receiving WIC.
>
> To conclude this section, it is clear that the CPS FSS and ADF and the SIPP

[155]Robert Greenstein, Center on Budget and Policy Priorities, e-mail message to author, July 2, 2007.

[156]Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1156, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008).

> undercount WIC recipients and that the problem is more severe for WIC than it is for other transfers. [FN: The undercount in the CPS appears to be more severe in the Northeast, Mid-Atlantic and Southeast than it is for other regions in the county. Appendix Table A contains regional comparisons across the CPS FSS, CPS ADF, National Survey, and administrative totals. There is less regional variation in the SIPP.] But these comparisons suggest that missing recipients appear to be randomly distributed across categorically-eligible WIC groups, at least in terms of observables. The incomes of WIC recipients are higher in the CPS and SIPP than in the WIC administrative data, but it is plausible that incomes are underreported to WIC administrators. The discrepancies documented in this section serve as a qualification to CPS- and SIPP-based analyses of WIC.[157]

After examining all the surveys and weighing Greenstein's comments against those of Bitler and her colleagues, supplemented by our own analysis, we think that the CPS and SIPP provide a more accurate picture of the incomes of WIC families. In fact, as mentioned in the above quotation, both the CPS and the SIPP are widely believed to understate income,[158] so that the incomes of WIC families are probably even higher.[159] Here is how we reconcile the four surveys:

- *Current vs. annual income*. The WPPC data come from WIC agencies, and hence reflect their use of current income at the time of application rather than annual income. Similarly, although the NSWP data come from participants, they are asked for income in the month prior to application (again not annual income). The CPS, however, asks for income for the past year (that is, "annual income," the standard Census Bureau period for measuring income), which is higher than average monthly income. (For example, between 1996 and 1999, the monthly poverty rate was about 22 to 29 percent higher than the annual poverty

[157]Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1158, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008).

[158]See Douglas J. Besharov, Jeffrey S. Morrow, and Anne Fengyan Shi, *Child Care Data in the Survey of Income and Program Participation (SIPP): Inaccuracies and Corrections* (College Park, MD: Welfare Reform Academy, 2006), http://www.welfareacademy.org/pubs/sipp_childcare_data.pdf (accessed December 20, 2007); and Mark I. Roemer, *Assessing the Quality of the March Current Population Survey and the Survey of Income and Program Participation Income Estimates, 1990-1996* (Washington, DC: U.S. Census Bureau, 2000), 47, table 3b, http://www.census.gov/hhes/www/income/assess1.pdf (accessed December 20, 2007).

[159]See Douglas J. Besharov, Jeffrey S. Morrow, and Anne Fengyan Shi, *Child Care Data in the Survey of Income and Program Participation (SIPP): Inaccuracies and Corrections* (College Park, MD: Welfare Reform Academy, 2006), http://www.welfareacademy.org/pubs/sipp_childcare_data.pdf (accessed December 20, 2007); and Mark I. Roemer, *Assessing the Quality of the March Current Population Survey and the Survey of Income and Program Participation Income Estimates, 1990-1996* (Washington, DC: U.S. Census Bureau, 2000), 47, table 3b, http://www.census.gov/hhes/www/income/assess1.pdf (accessed December 20, 2007).

rate.)[160] In addition, both the WPPC and the NSWP include the income of pregnant women which are then on average at their lowest levels (and, hence, not reflected in either the CPS or the SIPP). This would help explain why the CPS and the SIPP consistently show higher incomes among WIC recipients than the WPPC and the NSWP.

- *Subfamily not family income*. The WPPC data, coming from WIC agencies, reflect their use of subfamily income, which does not count the income of all adults in the household. Although the NSWP seeks to collect information of shared household income,[161] the survey is conducted in local WIC clinics just after the recipient has been certified for WIC. This may yield inaccurate responses as the recipient may simply report the household income as required by the state or local agency (which is more likely to reflect subfamily income as described below) or may be hesitant to report all household income for fear of losing their recently acquired WIC certification.

  Both the CPS and the SIPP, however, count the income of all family members in the household (they do not count the income of unrelated adults, such as cohabitors, who share resources). This is a standard Census Bureau economic unit for measuring income, and, for the families with subfamilies, it is more than three times higher than subfamily income alone.[162] This would also help explain why the CPS and the SIPP consistently shows higher incomes among WIC recipients than the WPPC and the NSWP.

- *Missed WIC recipients*. Both the CPS and the SIPP miss large numbers of WIC recipients, making their findings potentially inaccurate. However, according to Bitler, Currie, and Scholz, the missing recipients appear to be randomly distributed across categorically-eligible WIC groups, at least in terms of observables.[163] The SIPP asks for monthly income over the past four months, so, all things being equal, it should report lower incomes than the CPS. But the SIPP tends to miss disproportionately more "young adults, males, minority groups, never-married people, poor people, and people with lower

[160]John Iceland, *Dynamics of Economic Well-Being: Poverty 1996–1999* (Washington, DC: U.S. Census Bureau, July 2003), http://www.sipp.census.gov/sipp/p70s/p70-91.pdf (accessed November 29, 2007).

[161]According to the NSWP questionnaire for its in-person interviews, an "economic unit" is a family household in which members (including both related and unrelated persons) "share[d] major expenses." The survey counted the past month's income for all members of this economic unit. See Nancy Cole, David Hoaglin, and John Kirlin, *National Survey of WIC Participants: Final Report* (Alexandria, VA: USDA, October 2001), D-2, D-8, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/WICSurvey.pdf (accessed October 3, 2007).

[162]Author's calculations based on U.S. Census Bureau, DataFerrett, Current Population Survey, Annual Social and Economic (ASEC) Supplement, March 2007.

[163]Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38 (2003): 1158, http://www.ssc.wisc.edu/~scholz/Research/WIC_version16.pdf (accessed June 5, 2007).

educational attainment."[164] Hence, its income estimates are probably higher than they should be, and this helps to explain why they are not lower than those in the CPS. Another reason is that the WPPC and the NSWP report lower income is that they include the income of pregnant enrollees (about 912,000 women in 2006), but as described below, their incomes are temporarily low.

- *Missing income data.* Both the WPPC and the NSWP (especially the WPPC) have a substantial number of families for whom no income was reported. (In the 2006 WPPC, the percent of families with income not reported was about 11 percent and with zero income was about 1.1 percent.)[165] The most likely explanation is that these families are adjunctively eligible, so that the WIC program did not need to collect income data. Presumably, many of these families had annual incomes above 185 percent of poverty. Having no income data on so many families probably understates average incomes. (For the CPS and SIPP, those families with no income reported are included in those below 185 percent of poverty.)

Other differences among the surveys are too small to make a difference, and are not discussed here.[166]

[164]Robert A. Moffitt and Michele Ver Ploeg, eds., "Appendix D: Summaries of National-Level Survey Data Sets Relevant to Welfare Monitoring and Evaluation," in *Evaluating Welfare Reform in an Era of Transition* (Washington, DC: National Academy Press, 2001), 227.

[165]U.S. Department of Agriculture, Food and Nutrition Service, *WIC Participant and Program Characteristics 2006* (Alexandria, VA: USDA, December 2007): 33, exhibit 3.3, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/pc2006.pdf (accessed April 1, 2008).

[166]For example, the WPPC data and NSWP count families whose income is equal to the cutoff line in the lower bound group ("at or *below* 185 percent" of poverty), whereas data from CPS and the SIPP include them in the higher bound groups ("at or *above* 185 percent" of poverty). This difference, however, has a very slight, if any, effect on the distribution, because few eligible persons have family incomes that are exactly at the cutoffs. According to Sandi Nelson of the Urban Institute, among the CPS March data between 1995 and 2006, there are only two years when the CPS contains cases where eligible persons have family incomes that are exactly at the cutoffs (4 cases in 2004 and 5 cases in 2006).

In addition, "recipients" are defined differently in the surveys. In the WPPC, recipients (called "participants") are defined as "persons on WIC master lists or persons listed in WIC operating files who are certified to receive WIC benefits in April [of the data year]." A small proportion of those who were certified for WIC did not "physically pick up WIC benefits at the WIC office" (7 percent in 2002 and 9 percent in 2006). In the CPS, SIPP, and NSWP, the recipients have actually received WIC benefits.

Table 10

Income Distribution of WIC Recipients

WIC Participant and Program Characteristics survey (WPPC), National Survey of WIC Participants (NSWP) Current Population Survey (CPS), and Survey of Income and Program Participation (SIPP)

1998, 2000–2006

Year, data source, and income definition	Income distribution							
	≤100% (<100%) of poverty	101–150% (100–149%) of poverty	151–185% (150–184%) of poverty	186–200% (185–199%) of poverty	> 200 (≥200%) of poverty	Income not reported	< 185% (≤185%) of poverty	≥185% (> 185%) of poverty
1998								
WPPC (current/?subfamily)	56.8%	18.6%	6.6%	0.3%	0.4%	17.4%	82.0%	0.7%
NSWP (current/?subfamily)	62.1%	22.1%	7.4%	1.8%	3.8%	2.9%	91.9%	5.6%
CPS (annual, family)	54.2%	–	–	–	–	–	87.1%	12.9%
SIPP (monthly, family)	45.0%	–	–	–	–	–	76.8%	23.2%
2000								
WPPC (current/?subfamily)	55.6%	20.8%	8.4%	0.4%	0.6%	14.2%	84.8%	1.0%
NSWP (current/?subfamily)	–	–	–	–	–	–	–	–
CPS (annual, family)	40.6%	22.5%	11.5%	3.4%	22.1%	–	74.6%	25.4%
SIPP (monthly, family)	–	–	–	–	–	–	–	–
2001								
WPPC (current/?subfamily)	–	–	–	–	–	–	–	–
NSWP (current/?subfamily)	–	–	–	–	–	–	–	–
CPS (annual, family)	41.6%	23.0%	11.2%	4.4%	19.7%	–	75.9%	24.1%
SIPP (monthly, family)	–	–	–	–	–	–	–	–
2002								
WPPC (current/?subfamily)	53.9%	20.1%	8.2%	0.4%	0.9%	16.4%	82.2%	1.3%
NSWP (current/?subfamily)	–	–	–	–	–	–	–	–
CPS (annual, family)	43.6%	22.4%	10.4%	3.7%	19.8%	–	76.5%	23.5%
SIPP (monthly, family)	–	–	–	–	–	–	–	–
2003								
WPPC (current/?subfamily)	–	–	–	–	–	–	–	–
NSWP (current/?subfamily)	–	–	–	–	–	–	–	–
CPS (annual, family)	46.0%	21.9%	10.9%	3.1%	18.2%	–	78.7%	21.3%
SIPP (monthly, family)	–	–	–	–	–	–	–	–
2004								
WPPC (current/?subfamily)	57.2%	19.3%	7.7%	0.5%	0.9%	14.5%	84.2%	1.4%
NSWP (current/?subfamily)	–	–	–	–	–	–	–	–
CPS (annual, family)	45.4%	21.1%	11.8%	3.7%	18.0%	–	78.3%	21.7%
SIPP (monthly, family)	45.8%	20.9%	10.9%	2.9%	19.4%	–	77.7%	22.3%
2005								
WPPC (current/?subfamily)	–	–	–	–	–	–	–	–
NSWP (current/?subfamily)	–	–	–	–	–	–	–	–
CPS (annual, family)	45.5%	21.7%	11.4%	3.3%	18.0%	–	78.7%	21.3%
SIPP (monthly, family)	–	–	–	–	–	–	–	–
2006								
WPPC (current/?subfamily)	59.8%	19.8%	7.6%	0.7%	1.2%	11.0%	87.2%	1.9%
NSWP (current/?subfamily)	–	–	–	–	–	–	–	–
CPS (annual, family)	47.8%	22.6%	11.4%	3.8%	14.5%	–	81.7%	18.3%
SIPP (monthly, family)	–	–	–	–	–	–	–	–

Sources: For the WPPC data, see Susan Bartlett, Ellen Bobronnikov, and Nicole Pacheco, *WIC Participant and Program Characteristics 2004* (Alexandria, VA: USDA, March 2006), B-1, Exhibit B3.6, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/pc2004.pdf (accessed August 14, 2007), and Susan Bartlett, Ellen Bobronnikov, and Nicole Pacheco, *WIC Participant and Program Characteristics 2006* (Alexandria, VA: USDA, December 2007), 38, Exhibit B3.6, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/pc2006.pdf (accessed February 21, 2008),; for the NSWP, see Nancy Cole, David Hoaglin, and John Kirlin, *National Survey of WIC Participants: Final Report* (Alexandria, VA: USDA, October 2001), http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/WICSurvey.pdf (accessed August 14, 2007); for 1998 CPS data, and Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1139–1179, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008); and for 2000–2006 CPS data, author's calculations based on U.S. Census Bureau, DataFerrett, Current Population Survey, Annual Social and Economic (ASEC) Supplement, March, 2001–2007; for 1998 SIPP data, and Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1139–1179, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008); and for 2004 SIPP data, Richard Bavier e-mail message to author, June 24, 2007, based on U.S. Census Bureau, 2004 SIPP Panel data, wave 1, month 4.

Notes: For 1999, no data on WIC are available from these surveys.
Significant differences exist among the surveys, making them not precisely comparable. Nevertheless, it seems reasonable to draw some conclusions from them, as discussed in the text. Persons who reported zero family income are treated differently among these data sources. In the WPPC data, they are included in the category of "income not reported," whereas in the NSWP, CPS, and SIPP, they are included in the category of "at or below 100 percent of poverty."

Perhaps most convincing is a simple calculation that compares the number of infants and children (ages 1–4) from families with *annual* incomes below 185 percent of poverty with WIC's total enrollment. As table 11 shows, at least since 1994 (the earliest year for which we have data), the number of infants on WIC has consistently exceeded the number of infants from families with annual incomes at or below 185 percent of poverty—since 1998, by about a third (see figure 2).

Furthermore, the SIPP data suggest that, as WIC has expanded, it has enrolled families with higher incomes.[167] Richard Bavier used SIPP data to examine the distribution of WIC participants by income level in the key period between 1988 and 1996. He found that the percentage of WIC participants in families with annual incomes above $25,000 (measured in constant 1996 dollars) rose from 21 percent in 1988 to 29.4 percent in 1996, a 40 percent increase.[168] As Bavier notes, his calculations could be compromised by differences in the reporting of WIC receipt in the two periods, with considerably higher reporting in 1996 than in 1988. (It is unknown whether these differences bias the findings.) Nevertheless, his findings are consistent with informal reports from the field (and common sense). Once the program reached those with the lowest incomes, it naturally expanded by enrolling more participants with higher incomes.

As mentioned at various points in this paper, the mechanisms that allow so many higher income families into WIC—using current income instead of income that "more accurately reflects the family's status,"[169] and using subfamily income instead of the household's total income—makes many households WIC-eligible even though they have substantially more financial resources than those excluded because their income falls just a little above 185 percent of poverty.

One can see the resultant high levels of horizontal inequity in the income distribution of those currently eligible for WIC:

- According to tabulations by Bavier, in 2006, using a *family household* definition of income (rather than a *subfamily* family definition of income) would decrease the number of WIC-eligible infants by about 253,000 (or 14 percent) and decrease the number of

[167]But see Robert Greenstein, Center on Budget and Policy Priorities, e-mail message to author, July 2, 2007, stating: "It also is instructive that despite some caseload growth from 1998 to 2004, the income composition of the participants is essentially unchanged. The percentage at higher income levels is still very small."

[168]Richard Bavier e-mail message to Peter Germanis, June 22, 1999, describing his special tabulations of persons covered by WIC in the first six months of the 1988 SIPP panel, and the first six months of the 1996 panel.

[169]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(d)(2)(i), (2007): 331, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed July 16, 2007).

WIC-eligible children ages one through four by about 761,000 (or 11 percent).[170]

- Because only current income is counted, WIC ignores the long-term (and truer) income of many families. Consider only the families in which the mother takes time off from work to have a baby. In the 1990s, an additional 47 to 74 percent of pregnant women became eligible for this reason (between about 350,000 and 460,000 women).[171] According to Gordon, Lewis and Radbill, these newly eligible women "were more educated, were more likely to live with the father, were more likely to be white, and had fewer children than those who were income eligible during pregnancy."[172]

[170]Richard Bavier, e-mail message to author, November 26, 2007, special tabulation from the 2007 CPS Annual Social and Economic Supplement.

[171]Anne Gordon, Kimball Lewis, and Larry Radbill, *Income Variability Among Families with Pregnant Women, Infants, or Young Children* (Princeton, NJ: Mathematica Policy Research, Inc., January 1997); and Aaron S. Yelowitz, "Income Variability and WIC Eligibility: Evidence from the SIPP," (working paper, National Bureau of Economic Research, 2002).

[172]Anne Gordon, Kimball Lewis, and Larry Radbill, *Income Variability Among Families with Pregnant Women, Infants, or Young Children* (Princeton, NJ: Mathematica Policy Research, Inc., January 1997), xv.

Table 11

WIC *Enrollees* as a Percentage of the Population in that Category with Annual Family Incomes below 185% of Poverty

Infants and Children (ages 1–4)

1994–2003

Year	Total below 185% of poverty	Total WIC enrollment	Ratio of WIC enrollment to population below 185% of poverty
Infants			
1994	1,593,633	1,796,083	112.7%
1995	1,635,916	1,816,872	111.1%
1996	1,586,603	1,834,936	115.7%
1997	1,511,664	1,868,648	123.6%
1998	1,459,800	1,893,036	129.7%
1999	1,446,324	1,891,698	130.8%
2000	1,559,610	1,899,835	121.8%
2001	1,643,811	1,925,665	117.1%
2002	1,438,439	1,931,631	134.3%
2003	1,491,072	1,959,486	131.4%
Children 1–4			
1994	7,071,394	3,298,240	46.6%
1995	6,692,900	3,541,696	52.9%
1996	6,631,959	3,769,028	56.8%
1997	6,260,157	3,807,929	60.8%
1998	6,097,129	3,741,169	61.4%
1999	5,810,046	3,629,041	62.5%
2000	5,640,904	3,551,309	63.0%
2001	5,827,968	3,648,665	62.6%
2002	6,162,102	3,763,861	61.1%
2003	6,308,271	3,850,275	61.0%
All			
1994	8,665,027	5,094,323	58.8%
1995	8,328,816	5,358,567	64.3%
1996	8,218,562	5,603,964	68.2%
1997	7,771,821	5,676,577	73.0%
1998	7,556,929	5,634,205	74.6%
1999	7,256,370	5,520,740	76.1%
2000	7,200,514	5,451,144	75.7%
2001	7,471,779	5,574,330	74.6%
2002	7,600,541	5,695,493	74.9%
2003	7,799,343	5,809,761	74.5%

Sources: For the number of infants and children with annual family income below 185 percent of poverty, Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to author, June 14, 2007; and for the number of infants and children enrolled in WIC, Jay Hirschman, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to Gordon Green, April 11, 2006.

Notes: The ratio of WIC enrollees to the population below 185 percent of poverty is derived by dividing the total WIC enrollment by the number of people below 185 percent of the poverty for each category. These figures exclude persons with family incomes at exactly 185 percent of the poverty guideline, although they are technically eligible for WIC. This exclusion, however, has very slight, if any, effects on the distribution, because few eligible persons have family incomes that coincide exactly with the cutoffs of 185 percent of the guideline. For example, according to Sandi Nelson, a researcher at the Urban Institute, in the CPS March data between 1995 and 2006, only in two years were there a tiny number of such cases (4 cases in 2004 and 5 cases in 2006). See Edward Herzog, email message to the author, August 8, 2007.
The total number of persons under 185 percent of poverty is the USDA's adjusted count to correct for the miscounts in the CPS (as proposed by the NRC).

IV. Explanations and Assessments

The previous section of this paper documents the extent of WIC's expanding eligibility and the concomitant rise in WIC's enrollment. This section seeks to identify the sources of those expansions and, in doing so, to anticipate possible further expansions. To do so, it uses as a framework the key elements of the USDA's revised methodology for estimating the number of WIC eligibles.

As mentioned above, the USDA did not develop its revised methodology out of whole cloth. The changes it made were based on a small body of research (funded in full or in part by the USDA) that attempted to understand the actual eligibility criteria applied by WIC staff at the federal, state, and local levels. As we will see, these practices often reflected the broadest or most liberal application of the WIC statute and regulations, and sometimes reflected outright contradictions and even violations of them.

Table 12 summarizes the respective impacts (for 1998) of the various changes in the methodology for calculating the number of people eligible for WIC together with our estimates of eligibility in that year as well as in 2006 (the most recent year for which we have the relevant data). We use these materials as our initial guide to identify the sources of those expansions and, in doing so, to anticipate possible further expansions.

Table 12

Estimating WIC Eligibility

The Impact of Individual Factors and Estimated Cumulative Impacts

1998 and 2006

	Total population of infants	Total infants <185% of poverty	Monthly income plus certification periods		Adjunctive eligibility		Subfamily income		Eligible infants in territories		Nutritional risk		Total cumulative effect or % ≥185% of poverty	Eligible infants as percent of all infants
			Ind.[a]	Add'l cum.[b]	Ind.[a]	Add'l cum.[b]	Ind.[a]	Add'l cum.[b]	Ind.[a]	Add'l cum.[b]	Ind.[a]	Add'l cum.[b]		
1998														
Bitler, et al (SIPP)	4,078,484	1,433,296	54%	54%	–	7%	–	–	–	–	–	–	65%	58%
NRC (SIPP, CPS)	–	–	54%	–	7–19%[c]	–	0–1%	–	–	–	0%	0%	–	–
Giannarelli & Nelson (SIPP)	3,423,711	1,282,154	49%	49%	22%	12%	–	–	–	–	–	–	67%	57%
Giannarelli & Morton (CPS/TRIM)	3,841,000	1,498,000	–	[12%][d]	–	[25%][d]	13%	[13%][d]	–	–	–	–	65%	64%
USDA (original) (CPS/TRIM)	3,809,450	1,429,626	–	–	1%[e]	–	–	–	–	4%	–	-5%	0%	39%
USDA (revised) (CPS/TRIM)	3,730,709	1,459,800	–	[28%][d]	15%	[15%][d]	–	–	–	4%	–	-3%	49%	58%

Table 12

Estimating WIC Eligib

The Impact of Individual Fact

1998 and 2006

	Total population of infants	Total infants <185% of poverty	Monthly income plus certification periods		Adjunctive eligibility		Subfamily income		Eligible infants in territories		Nutritional risk		Cumulative … of poverty
			Ind. [a]	Add'l cum.	Ind. [a]	Add'l cum.	Ind. [a]	Add'l cum.	Ind. [a]	Add'l cum.	Ind. [a]	Add'l cum.	
Besharov (estimate)[f]	3,809,450	1,462,516	50%	50%	15-20%	10-15%	15-20%	5-10%	–	4%	–	–	

Table 12

Estimating WIC Eligibility

The Impact of Individual Factors and Estimated Cumulative Impacts

1998 and 2006

	Total population of infants	Total infants <185% of poverty	Monthly income plus certification periods		Adjunctive eligibility		Subfamily income		Eligible infants in territories		Nutritional risk		Total cumulative effect or % ≥185% of poverty	Eligible infants as percent of all infants
			Ind.[a]	Add'l cum.[b]	Ind.[a]	Add'l cum.[b]	Ind.[a]	Add'l cum.[b]	Ind.[a]	Add'l cum.[b]	Ind.[a]	Add'l cum.[b]		
2006														
Besharov (estimate)[f]	4,074,649	1,667,481	50%	50%	25-35%	10-15%	15-20%	5-10%	–	4%	–	–	80–97%	74–81%

Sources: Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1162, table 7, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008); Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program, Final Report* (Washington, DC: National Academies Press, 2003); Linda Giannarelli and Sandi Nelson, *How Many Women, Infants, and Children are Eligible for WIC? Estimates from the CPS and SIPP* (Washington, DC: The Urban Institute, March 2006), table B1; Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to the author, June 14, 2007; and UMD/AEI Poverty Tabulator: Software for Examining Historical Trends and Alternative Measurement Definitions, version 4.6.3, http://www.aeimirror.org/poverty (accessed March 12, 2008). Adjustment factors derived from source figures by author's calculations.

Notes:
[a]Independent effect: Impact of the adjustment compared to the total number of infants at or below 185 percent of the poverty line.
[b]Additional cumulative effect: Impact of the adjustment compared to the total number of infants from the prior adjustment
[c]This range represents the NRC's estimates for eligibility using data from the CPS (for the lower-bound estimate) and the SIPP (for the upper-bound estimate)
[d]Figures in brackets are the impacts of the adjustments compared to the total number of infants from the prior adjustments in the authors' original calculations.
[e]In the original USDA method, the adjustment for adjunct eligibility was made for Medicaid only.
[f]The reasons for these estimates are described in Appendix 2.
For 1994–2003, the total population of each demographic category is adjusted for CPS miscounts as recommended by the NRC. For 2004–2006, the total population of each demographic category is unadjusted.

Subfamily income vs. shared household income. To determine income eligibility, WIC agencies are supposed to count the income of the entire household—if it is shared. Many agencies do not, however, and instead count the income of only the nuclear family, leaving out other sources of household income—for example, from grandparents, siblings, and boyfriends. The failure to count all of the household's income can, by itself, expand eligibility over the base of those with annual incomes below 185 percent of poverty by as much as 20 percent.[173]

Although WIC regulations call the economic income unit to be used for measuring income-eligibility the "family," they actually describe a broader unit: households that share income and resources, defined as "a group of related or nonrelated individuals who are living together as one economic unit."[174] Those not living together as an economic unit do not have their collective incomes counted in determining eligibility. (Unborn children are counted as family members, as are all children living in the home.)[175]

State WIC rules, in turn, make similar reference to shared household income and consumption. For example, the California WIC Program Manual defines the "Family Unit" as "a group of related or nonrelated individuals who live together as one household/economic unit. These individuals share income and consumption of goods or services."[176] Among the twenty-five states sampled by the NSWP, all but one defined an "economic unit" in their WIC manuals as "a

[173]This is an independent effect, and could be smaller when present in combination with the other practices discussed in this paper.

[174]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.2, (2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed June, 21, 2007). There is apparently no definition of the relevant economic unit in the two statutes that the form the basis of WIC's legal framework: the *Child Nutrition Act of 1966* (CNA) and the *Richard B. Russell National School Lunch Act* (NSLA). The *Food Stamp Act of 1977*, however, defines a "household" to include "a group of individuals who live together and customarily purchase food and prepare meals together for home consumption." *Food Stamp Act of 1977*, as amended through Public Law 108–269, 108th Cong., 2d sess. (July 2, 2004), sec. 3(i)(1)(B), http://agriculture.senate.gov/Legislation/Compilations/FNS/FSA77.pdf (accessed June 21, 2007).

[175]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.2, (2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed July 16, 2007).

[176]California Department of Health Services, *WIC Program Manual* (Sacramento, CA: California Department of Health Services, October 2007), 2, http://www.wicworks.ca.gov/resources/wpm/section200/210-40.2.pdf (accessed June 21, 2007). See also Wisconsin Department of Health and Family Services, *WIC Operations Manual* (Madison, WI: Wisconsin Department of Health and Family Services, April 2006), 5, http://dhfs.wisconsin.gov/wic/WICPRO/pdf_files/OpsManl/policy02-03.pdf (accessed June 21, 2007), stating: "Family members share economic resources and consumption of goods and/or services."

group of persons who usually live together and who share financial resources."[177] Two states even explicitly require that "an unmarried couple living together should be considered a single economic unit."[178] The one exception, however, required that persons within an economic unit "must be related by blood, marriage, adoption, or guardianship."[179]

Nevertheless, it appears that many WIC eligibility workers do not count all shared household income, instead looking at the income of only the nuclear family. They tend to base income-eligibility determinations, for example, on the mother's own income ("subfamily income"), and not that of the entire household (which could be much higher because it can include the income of relatives and cohabitors).

Evidence of this failure to consider all household income is found in the income data for WIC recipients and also in the 1998 NSWP, which reports that 85 percent of the WIC economic units were "residing by themselves," only 15 percent were residing in larger households, and 4 percent "contained unrelated individuals."[180] Yet, in both the 1996 and 2001 SIPPs, the percentage of WIC mothers ages fifteen to forty-four who lived solely with their immediate family was only about 62 percent in 1996[181] and 66 percent in 2001[182] —more than 20 percent lower. And the proportion who lived with either an unmarried partner or other adult nonrelative(s)

[177]Nancy Cole, David Hoaglin, and John Kirlin, *National Survey of WIC Participants: Final Report* (Alexandria, VA: USDA, October 2001), 162, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/WICSurvey.pdf (accessed October 3, 2007).

[178]Nancy Cole, David Hoaglin, and John Kirlin, *National Survey of WIC Participants: Final Report* (Alexandria, VA: USDA, October 2001), 162, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/WICSurvey.pdf (accessed October 3, 2007).

[179]Nancy Cole, David Hoaglin, and John Kirlin, *National Survey of WIC Participants: Final Report* (Alexandria, VA: USDA, October 2001), 161, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/WICSurvey.pdf (accessed October 3, 2007).

[180]Nancy Cole, David Hoaglin, and John Kirlin, *National Survey of WIC Participants: Final Report* (Alexandria, VA: USDA, October 2001), 59, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/WICSurvey.pdf (accessed October 3, 2007).

[181]U.S. Census Bureau, "Fertility and Program Participation in the United States: 1996 (P70-82), Detailed Tables," table 3, http://www.census.gov/population/www/socdemo/fertility/p70-82.html (accessed December 4, 2007).

[182]U.S. Census Bureau, "Participation of Mothers in Government Assistance Programs: 2001 (P70–102), Detailed Tables," table 3A, http://www.census.gov/population/www/socdemo/fertility/p70-102.html (accessed December 4, 2007).

was almost five times higher, 17 percent in 1996[183] and 19 percent in 2001.[184]

[183]U.S. Census Bureau, "Fertility and Program Participation in the United States: 1996 (P70-82), Detailed Tables," table 3, http://www.census.gov/population/www/socdemo/fertility/p70-82.html (accessed December 4, 2007).

[184]U.S. Census Bureau, "Participation of Mothers in Government Assistance Programs: 2001 (P70–102), Detailed Tables," table 3A, http://www.census.gov/population/www/socdemo/fertility/p70-102.html (accessed December 4, 2007).

Box 2

Census Bureau Definitions of Income Units

- A household "consists of all the people who occupy a housing unit." The Census Bureau divides households between "nonfamily households" and "family households," according to the status of the householders.
- A "nonfamily household" is one in which the householder either lives alone or shares the housing unit with people who are not related to him or her.
- A "family household" is "a household maintained by a householder who is in a family, and includes any unrelated people (unrelated subfamily members and/or secondary individuals) who may be residing there."
- "A family is a group of two people or more (one of whom is the householder) related by birth, marriage, or adoption and residing together; all such people (including related subfamily members) are considered as members of one family."
- The term "primary family" is sometimes used in place of "family" to distinguish it from a subfamily.
- A "subfamily" is "a married couple with or without children, or a single parent with one or more own never-married children under 18 years old. A subfamily does not maintain [sic] their own household, but lives in the home of someone else." Subfamilies are either "related or "unrelated," as described next.
- "A related subfamily is a married couple with or without children, or one parent with one or more own never married children under 18 years old, living in a household and related to, but not including, the person or couple who maintains the household."
- "An unrelated subfamily (formerly called a secondary family) is a married couple with or without children, or a single parent with one or more own never-married children under 18 years old living in a household. Unrelated subfamily members are not related to the householder. An unrelated subfamily may include people such as guests, partners, roommates, or resident employees and their spouses and/or children."

Source: U.S. Census Bureau, "Current Population Survey (CPS) – Definitions and Explanations" (Washington, DC: U.S. Census Bureau, January 20, 2004), http://www.census.gov/population/www/cps/cpsdef.html (accessed November 14, 2007).

Some observers explain this failure to consider all the shared income in the household as the product of worker reluctance to delve into private living arrangements. An ERS report explains:

> An area of particular vulnerability in the process of determining income eligibility is obtaining an accurate income for the economic unit. With the exception of small towns, where staff may know the living situations of applicants, WIC staff must typically rely on the documentation the applicant provides on who is living in the home and how much income they receive.[185]

Moreover, as some have observed, WIC staff may simply be eager to provide WIC benefits to as many families as possible[186]—especially at a time when there do not seem to be immediate funding constraints. They may also be unaware of WIC's household income-sharing rule. (USDA publications tend to use the terms of "family," "economic unit," and "household" interchangeably.)

Using the subfamily definition of income makes many better-off families/households look more needy than they are—and more needy than many who are not in the program. A single mother on her own with a family income just above 185 percent of the poverty line would not be eligible for WIC, while a single mother living in a household (with say her mother or boyfriend) that has a mich higher total income could be eligible—as long as her own personal income is below 185 percent of poverty.

The USDA does not estimate adjustment factors using alternative definitions of household income units, despite stating it does so in its brief overview of the revised methodology,[187] and instead uses only the Census Bureau's income definition for a "family" or "primary family" ("all persons related by blood, marriage, or adoption").[188] This is a narrower definition of the relevant

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[185]Dev R. Chaudhari and Vicki Shaffer, *Methods To Prevent Fraud and Abuse Among Staff and Participants in the WIC Program: Volume I, Final Report* (Washington, DC: USDA, December 2001), 28, http://www.ers.usda.gov/publications/efan01011/efan01011.pdf (accessed July 16, 2007).

[186]Douglas J. Besharov and Peter Germanis, *Rethinking WIC: An Evaluation of the Women, Infants, and Children Program* (Washington, DC: The AEI Press, 2001), 24.

[187]U.S. Department of Agriculture, Food and Nutrition Service, Office of Analysis, Nutrition, and Evaluation, *WIC Program Coverage: How Many Eligible Individuals Participated in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): 1994 to 2003?* (Alexandria, VA: USDA, February 2006), 1–2, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/WICEligibles.pdf (accessed November 16, 2007).

[188]Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to author, June 15, 2007, quoting from an Urban Institute technical report provided to the USDA: "Considering the various options, the NRC Panel recommended that WIC eligibility estimates assume that income is defined as total cash income, that the economic unit is defined using the Census Bureau's concept of the family (all persons related by blood, marriage, or adoption), and that income eligibility is based on monthly income. We follow those recommendations in the

income unit because it leaves out unrelated members of the household that are probably be sharing financial resources and, hence, and has the effect of raising the estimate of eligibles.

Family or primary family income is a standard Census Bureau economic unit for measuring income, and, for the families with subfamilies, it is more than three times higher than subfamily income alone.[189] According to the CPS, in 2006, the median subfamily income of the related subfamilies with children that lived with their relatives (about 7 percent of the total number of families with children) was only $15,430, but the median primary family income of such households was about $59,600.[190] That means that a subfamily in a household with a total income of $59,600 (or more, because this is just the median) could be WIC-eligible, while a mother and a child living alone with an total income of $25,000 would not. (In 2006, the income cutoff was $24,420, or 185 percent of poverty guideline for a two-person family.)[191] Bavier found similar patterns using the SIPP.[192]

The NRC explored the impact on eligibility estimates of using the subfamily as the economic unit for determining income, and concluded that it made only a very small difference compared to using a "family household" measure: about a 1 percent increase for infants and a 1.5 percent increase for children.[193] The NRC explained the smallness of this effect as being the product of considering adjunctive eligibility first, because many subfamilies are also eligible for WIC through adjunctive eligibility. Once this is accounted for, according to the NRC, the effect

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estimates presented in this report."

[189]Author's calculations based on U.S. Census Bureau, DataFerrett, Current Population Survey, Annual Social and Economic (ASEC) Supplement, March 2007.

[190]Author's calculations based on U.S. Census Bureau, DataFerrett, Current Population Survey, Annual Social and Economic (ASEC) Supplement, March 2007.

[191]Authors' calculation based on U.S. Department of Health and Human Services, "The 2006 HHS Poverty Guidelines," http://aspe.hhs.gov/poverty/06poverty.shtml (accessed January 29, 2008).

[192]Richard Bavier, e-mail message to author, April 7, 2008. In the 2004 SIPP, Bavier found that only about 14.9 percent of *all related subfamilies* with an infant had, *themselves*, monthly incomes at or above 185 percent of poverty. However, about 53 percent lived with families with monthly incomes at or above 185 percent of poverty, including 32 percent with monthly incomes at or above 300 percent of poverty. Fifty-four percent of all related subfamilies lived in households with monthly incomes at or above 185 percent of poverty, including 33 percent with monthly incomes at or above 300 percent of poverty. For *all unrelated subfamilies*, only about 2 percent had monthly subfamily incomes at or above 185 percent of poverty, but 46 percent lived in households with monthly incomes at or above 185 percent of poverty, including 22 percent with monthly incomes at or above 300 percent of poverty.

[193]Michele Ver Ploeg and David M. Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Phase I Report* (Washington, DC: National Academies Press, 2001), 45.

of using subfamilies as the economic unit becomes quite small.[194] (Without considering the impact of adjunctive eligibility, using a primary family measure compared to a subfamily measure would have increased the estimated number of eligible infants and children by about 13 percent and 7 percent, respectively.)[195]

But, as suggested above, the NRC did not actually count all household income. It compared eligibility estimates based on subfamily income only to the income of the related persons in the household, what the Census Bureau calls "family income" (or "primary family" income).[196] It did not count the income of the entire household which could contain unrelated persons with income, which is, after all, the relevant income unit for WIC eligibility (as long as the income is shared), thus ignoring the income of cohabitors.[197]

What happens when the income of nonfamily members in the household is counted? Because of the difficulty of judging from national data sets whether income is being shared, Bitler, Currie, and Scholz decided against calculating the impact of counting the incomes of

[194]Michele Ver Ploeg and David M. Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Phase I Report* (Washington, DC: National Academies Press, 2001), 45–46, stating: "Giannarelli and Morton (2001) present estimates of the effect of these alternative unit definitions that suggest a much larger impact on the number of income eligible infants and children. However, the baseline they employed did not account for adjunctive eligibility. Our estimates employ a baseline that does account for adjunctive eligibility. The impact of these alternative definitions appears to be much more modest once adjunctive eligibility is accounted for in the estimates."

[195]Linda Giannarelli and Joyce Morton, "Estimating the Number of Infants and Children Who Are Income Eligible for WIC" (presentation, Panel to Evaluate the USDA's Methodology for Estimating Eligibility and Participation for the WIC program, March, 2000).

[196]Michele Ver Ploeg and David M. Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Phase I Report* (Washington, DC: National Academies Press, 2001), 44–46.

[197]Michele Ver Ploeg and David M. Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Phase I Report* (Washington, DC: National Academies Press, 2001), 44, stating: "The current FNS methodology employs the Census Bureau's family definition to represent the WIC economic unit. A census family is defined as all persons related by blood or marriage who live together. For example, if a mother with an infant and a child lives with her two parents, then the FNS methodology would consider all five persons to constitute an economic unit for determination of WIC eligibility. . . . The panel explored the use of an alternative definition of the economic unit that includes only parents and children under the age of 18 years. In our example, this alternative definition considers only the mother, her infant, and her child as the economic unit. For a lack of a better term, we denote this definition as the narrow family compared with a broad family definition that would consider the two parents of the mother (grandparents of the children) as part of the economic unit. . . . * * * The panel used Urban Institute data and the TRIM model to examine the sensitivity of the estimated number of income eligible persons to the definition of a WIC economic unit. Two scenarios reflect alternative ways that WIC staff might assess different living arrangements. Under a restrictive scenario, we considered the infants and children to be eligible only if they were eligible under both the narrow and the broad definitions of a family. Under a more generous scenario, we considered them eligible if the family meets income eligibility requirements for at least one of the definitions."

nonfamily members of the household.[198] But their analysis hints at its possible significance: they find that the average and median incomes of WIC recipients are more than 25 percent higher using household versus primary family definitions of income.[199]

An indication of the impact of counting the income of nonfamily members of the household is found in the SIPP's estimates of the household income of WIC infants. In 2004, about 47 percent of families receiving WIC for an infant had *monthly family incomes* below poverty, about 20 percent had annual incomes between 100 and 150 percent of poverty, only 12 percent had annual incomes between 150 and 184 percent of poverty, and about 21 percent had annual incomes above 185 percent of poverty—with 12 percent between 200 and 299 percent of poverty and 6 percent at or above 300 percent of poverty.[200]

When using *monthly household incomes* instead of monthly family incomes, however, only about 41 percent of families receiving WIC for an infant had annual incomes below poverty, about 21 percent had annual incomes between 100 and 150 percent of poverty, 14 percent had annual incomes between 150 and 184 percent of poverty, and about 24 percent had annual incomes above 185 percent of poverty—with 14 percent between 200 and 299 percent of poverty and 8 percent at or above 300 percent of poverty.[201] (The number of postpartum and breastfeeding women would increase at a similar level, although the exact numbers are not available.)

This disparity is sometimes defended on the ground that counting the income of the mother's parents might lead her to move out of their home. That is certainly the fear when it comes to welfare payments. But the limited nature of WIC benefits makes that quite implausible.

Current income vs. income that "more accurately reflects the family's status." Because incomes can rise and fall throughout the year, WIC agencies are allowed to choose among annual, monthly, or weekly income. (The one exception, and it is substantial, is lower

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[198]Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1142, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008), stating: "Similarly, WIC rules define a household as people who are living together and sharing resources. Hence, a pregnant woman who moved in with her sister's family might or might not be considered to be part of that family for WIC purposes, depending, for example, on whether or not she paid rent to her sister. Thus, even if the analyst has monthly information about income and family structure, it is often not possible to tell whether the local WIC agency would have regarded a particular person as eligible."

[199]Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1157, table 5, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008).

[200]Richard Bavier, e-mail message to author, April 7, 2008.

[201]Richard Bavier, e-mail message to author, April 7, 2008.

current income caused by unemployment.)[202] The regulations allow (but do not mandate) states to require that agencies select the period that "more accurately reflects the family's status,"[203] and the states have done a poor job encouraging WIC agencies to do so. Most WIC agencies simply seem to use the lowest income, whichever it is, in order to maximize eligibility. This failure to use the most appropriate income period can, by itself, expand eligibility over the base of those with annual incomes below 185 percent of poverty by about 20 percent.[204]

A family's income can be temporarily high or temporarily low. Temporarily high, for example, if a member of the family is in only a temporary job, or had recently received a student grant, a one-time bonus, reimbursement for expenses, or an unusual amount of overtime pay. Temporarily low, if a member of the family is between jobs, on strike, on an unpaid leave of absence (perhaps because of pregnancy), had been laid off for the summer only, is paid on a 10-month basis (like teachers) and the application is made in the summer, or is a seasonal or migrant worker. (The latter could also result in a temporarily high income as well.)

Constance Newman of the USDA used the 1996 panel of the SIPP to track income variability of households with income at or below 185 percent of poverty who were eligible to receive free or reduced school lunch. She found that, in 1996, 65 percent of all households that were eligible for free or reduced school lunch in at least one month of the year had their eligibility status change at least once in the year and 21 percent had their eligibility status change three or more times in the year. She also found 14 percent of households that had been eligible in July 1996 had become ineligible by September and 20 percent had become ineligible by December. There were also a number of households, however, that were ineligible in July that would have been eligible if annual income had been used as opposed to monthly. She concludes

> households with greater volatility (even if only relative) may be more likely to cross the threshold of eligibility and be "caught" on the ineligible side when 1 month's income is used to determine eligibility . . . The evidence here shows that income volatility is relatively more important for low-income households, and it is strongly linked to monthly changes in the characteristics of a household's labor force participation. To the extent that

[202]See U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(d)(2)(I), (2008): 354, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed July 10, 2008), stating: "However, persons from families with adult members who are unemployed shall be eligible based on income during the period of unemployment if the loss of income causes the current rate of income to be less than the State or local agency's income guidelines for Program eligibility."

[203]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(d)(2)(i), (2007): 331, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed July 16, 2007).

[204]This is an independent effect, and could be smaller when present in combination with the other practices discussed in this paper.

> the USDA food assistance programs are to serve the needy, the volatility associated with low-income working households will become an increasing challenge to program administration.[205]

Income variability appears to have increased considerably for many groups over the last three decades. (Reasons include welfare reform and shorter periods of job tenure.)[206] Using the Panel Survey of Income Dynamics (PSID), Jacob Hacker, a professor at Yale University, found that, between 1974 and 1998, income variability doubled for all families in the U.S.[207] and Robert Moffitt, a professor at Johns Hopkins University, found that income variability doubled for low-income families (between 1970 and 2000).[208] One exception seems to be low-income families headed by white males. Benjamin Keys, a professor at the University of Michigan, also used the PSID and found that income variability increased by only 20 percent for these families (between 1970 and 2000).[209]

High levels of income variability have a significant effect on eligibility for means-tested programs. For example, Thomas MaCurdy, a professor at Stanford University, and Grecia Marrufo, a researcher at the SPHERE Institute, used the Monthly Income Dynamic SIPP simulation model to simulate food stamp eligibility in 2002. They found that the number of

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[205]Constance Newman, *The Income Volatility See-Saw: Implications for School Lunch* (Alexandria, VA: U.S. Department of Agriculture, August 2006), http://www.npc.umich.edu/news/events/income_volatility_agenda/newman.pdf (accessed October 3, 2008).

[206]See generally, Karen E. Dynan, Douglas W. Elmendorf, and Daniel E. Sichel, *The Evolution of Household Income Volatility*, Finance and Economics Discussion Series (Washington, DC: Federal Reserve Board, October 2007), http://www.federalreserve.gov/Pubs/feds/2007/200761/200761pap.pdf (accessed November 14, 2008).

[207]Jacob S. Hacker, "Call It the Family Risk Factor," *New York Times*, January 11, 2004, table 1, http://pantheon.yale.edu/~jhacker/PSID_Data_NYT.htm (accessed October 3, 2008).

[208]Moffitt compared the coeffecient of variation (the variance of a household's monthly income from its average annualized monthly income as a proportion of the latter) for households in the 20th, 60th, and 90th percentile of the income distribution in 1970 and 2000. He found that while there was an increase in the coefficient of variability for each percentile, the greatest increase was for those households in the 20th percentile. [Cited in Peter Gosselin, "If America Is Richer, Why Are Its Families So Much Less Secure?" The New Deal, *Los Angeles Times*, October 10, 2004, http://www.latimes.com/business/la-fi-riskshift3oct10,0,3849444.story (accessed November 17, 2008); and Peter Gosselin, "The Poor Have More Things Today—Including Wild Income Swings," The New Deal, *Los Angeles Times*, December 12, 2004, http://www.latimes.com/business/la-fi-poor12dec12,0,5347390.story (accessed November 17, 2008).]

[209]Keys calculated the coefficient of variation for white male heads of household by quartile over the same time period. Although he found that the percent increase was much greater for the top quartile as opposed to the bottom quartile, "the instability in the highest quartile of permanent earnings is roughly four times smaller than the instability in the lowest quartile." Benjamin J. Keys, "Overview Presentation: Trends in Income and Consumption Volatility, 1970–2000," (paper, presented at Income Volatility and Implications for Food Assistance Programs II conference, Washington, DC, November 16–17, 2006), 4, http://www.npc.umich.edu/news/events/income_volatility_agenda/Keys_overview.pdf (accessed October 3, 2008).

households eligible for food stamps declined by about 67 percent when determining eligibility using average monthly income over a six-month period as opposed to monthly income. In addition, they found that households were only eligible for an average of six months of the year when eligibility was determined using monthly income.[210]

Recognizing such variations, some means-tested programs base eligibility on annual or annualized income. In many instances, they seek to identify people whose long periods of poverty bespeak or create other serious problems. For example, the Head Start Act requires that income eligibility be based on annual income either for the twelve months prior to enrollment or for the last complete calendar year before enrollment ("whichever more accurately reflects the needs of the family at the time of application")—presumably to identify those children whose long-term poverty status puts them at social and developmental risk and who therefore presumably need a compensatory early childhood education program.[211] (Within that context, and also because Head Start has a nine-month curriculum, rises in family income after enrollment are ignored.)[212]

Other means-tested programs, such as the food stamp and school meals programs, base eligibility on immediate economic need, using income "during the past 30 days"[213] and "in the prior month,"[214] respectively, to determine eligibility. The original purpose of these programs was to help those who *currently* could not afford to purchase sufficient food.[215] Consequently, both

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[210]Thomas MaCurdy and Grecia Marrufo, "Food Assistance for the Working Poor: Simulating the Impact of the Nutrition Tax Credit on the Food Stamp Program," (paper, presented at Income Volatility and Implications for Food Assistance Programs II conference, Washington, DC, November 16–17, 2006), 30, http://www.npc.umich.edu/news/events/income_volatility_agenda/MaCurdy.pdf (accessed October 3, 2008).

[211]*Head Start Act*, *U.S. Code* 42 (1998), § 9840, sec. 645(a).

[212]See generally Douglas J. Besharov and Jeffrey S. Morrow, "Nonpoor Children in Head Start," *Journal of Policy Analysis and Management* 26, no. 3 (2007): 613–631, http://www.welfareacademy.org/pubs/childcare_edu/nonpoor_children_in_head_start.pdf (accessed October 12, 2008).

[213]U.S. Department of Agriculture, Food and Nutrition Service, "Food Stamp and Food Distribution Program," *Code of Federal Regulations*, title 7, sec. 273.21 (2007): 708, http://a257.g.akamaitech.net/7/257/2422/14mar20010800/edocket.access.gpo.gov/cfr_2003/pdf/7CFR273.10.pdf (accessed December 12, 2007).

[214]U.S. Department of Agriculture, Food and Nutrition Service, "Eligibility Guidance for School Meals Manual" (Alexandria, VA: USDA, 2007), 12–13, http://www.fns.usda.gov/cnd/Guidance/eligibility_guidance.pdf (accessed December 12, 2007; site now discontinued).

[215]*Food Stamp Act of 1977*, as amended through Public Law 108–269, 108th Cong., 2d sess. (July 2, 2004), sec. 3(i)(1)(B), http://agriculture.senate.gov/Legislation/Compilations/FNS/FSA77.pdf (accessed January 4, 2008), stating that its purpose is to "alleviate such hunger and malnutrition, a food stamp program is herein authorized which will permit low-income households to obtain a more nutritious diet through normal channels of trade by increasing food purchasing power for all eligible households who apply for participation." See also *Richard B. Russell National School Lunch Act*, as amended through Public Law 109–97, 109th Cong., 1st sess. (November 10,

programs originally required recipients to report specified changes in income—as small as $50 depending on the circumstances.[216]

Even in these programs, however, we can see a growing liberalization of reporting requirements that seem at odds with the purposes of the programs. In the Food Stamp program, for example, almost all states have taken advantage of the simplified reporting option.[217] This option allows states to extend the certification periods of most food stamp households (not including "households that have no earnings and in which all adult members are elderly or disabled, households in which all members are homeless, or households that include migrant and seasonal farm workers")[218] and to require a household to "report a change during the certification period *only if it* results in income exceeding the food stamp eligibility limit of 130 percent of the federal poverty level. At 6 months, a state must recertify the household or, if it uses a 12-month certification period, require the household to submit a short semiannual report."[219]

Similarly, for the school meals programs, in 2004, Congress extended certification periods from one month to the length of the school year for households that qualify for free or reduced school meals, eliminating the requirement for households to report monthly income changes that

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2005), Sec. 9(b)(9), http://www.fns.usda.gov/cnd/Governance/Legislation/Historical/NSLA-Nov-10-2005.pdf (accessed January 4, 2008), stating that its purpose is to "safeguard the health and well-being of the Nation's children and to encourage the domestic consumption of nutritious agricultural commodities and other food, by assisting the States, through grants-in-aid and other means, in providing an adequate supply of foods and other facilities for the establishment, maintenance, operation, and expansion of nonprofit school lunch programs."

[216]See U.S. Department of Agriculture, Food and Nutrition Service, "Food Stamp and Food Distribution Program," *Code of Federal Regulations*, title 7, sec. 273.12(b) (2007), http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=ca349651b23242bdd8050e100d2559ab&rgn=div8&view=text&node=7:4.1.1.3.21.0.1.12&idno=7 (accessed December 12, 2007); and U.S. Department of Agriculture, Food and Nutrition Service, "Eligibility Guidance for School Meals Manual" (Alexandria, VA: USDA, 2007): 12–13, http://www.fns.usda.gov/cnd/Guidance/eligibility_guidance.pdf (accessed December 12, 2007; file no longer available).

[217]U.S. Department of Agriculture, Food and Nutrition Service, Program Development Division, *Food Stamp Program: State Option Report*, 7th ed. (Alexandria, VA: USDA, November 2007), http://www.fns.usda.gov/fsp/rules/memo/support/state_options/7-state_options.pdf (accessed July 11, 2008).

[218]Carole Trippe, Liz Schott, Nancy Wemmerus, and Andrew Burwick, *Simplified Reporting and Transitional Benefits in the Food Stamp Program—Case Studies of State Implementation: Final Report* (Princeton, NJ: Mathematica, May 2004), viii, http://www.ers.usda.gov/publications/efan04003/efan04003.pdf (accessed July 10, 2008).

[219]Carole Trippe, Liz Schott, Nancy Wemmerus, and Andrew Burwick, *Simplified Reporting and Transitional Benefits in the Food Stamp Program—Case Studies of State Implementation: Final Report* (Princeton, NJ: Mathematica, May 2004), vii, http://www.ers.usda.gov/publications/efan04003/efan04003.pdf (accessed July 10, 2008) (emphasis added).

exceed $50.[220]

What impact do these new rules have on enrollment and program costs? Maria Hanratty of the University of Minnesota found that the relaxing of certification requirements in the food stamp program—that is, extending certification periods to six months and requiring food stamp recipients to report a change in income during the certification period only if it results in their income exceeding 130 percent of poverty—led to a 9.2 percent increase in food stamp participation between 2001 and 2003 using the 2001 panel of the SIPP.[221]

Reflecting the hybrid nature of WIC benefits—addressing both economic need and nutritionally risky behaviors[222]—WIC combines a relatively high income cut-off for a means-tested program (185 percent of poverty) with a requirement of nutritional risk combined with longer certification periods and no obligation to report income rises.

Moreover, recognizing the difference between annual and current income, the WIC regulations authorize—but do not require—states to "instruct local agencies to consider the income of the family during the past 12 months and the family's current rate of income to determine which indicator *more accurately reflects the family's status*."[223] Unfortunately, the regulations provide no guidance about the what that means. (Again, the one exception being households with an unemployed adult. For these households, local agencies are instructed to use current income.)[224] (In the following discussion, we assume the validity of these regulations,

[220]Constance Newman, *The Income Volatility See-Saw: Implications for School Lunch* (Alexandria, VA: U.S. Department of Agriculture, August 2006), http://www.npc.umich.edu/news/events/income_volatility_agenda/newman.pdf (accessed October 3, 2008).

[221]Maria Hanratty, "Has the Food State Program Become More Accessible? Impacts of Recent Changes in Reporting Requirements and Asset Eligibility Limits," *Journal of Policy Analysis and Management* vol. 25, no. 3 (2006): 603–621, http://www3.interscience.wiley.com/cgi-bin/fulltext/112651064/PDFSTART (accessed November 14, 2008).

[222]According to the Child Nutrition Act of 1966, WIC's purpose is "to provide . . . supplemental foods and nutrition education through any eligible local agency that applies for participation in the program. The program shall serve as an adjunct to good health care, during critical times of growth and development, to prevent the occurrence of health problems, including drug abuse, . . . and improve the health status of these persons." *Child Nutrition Act of 1966*, as amended through Public Law 109–85, 109th Cong., 1st sess. (October 4, 2005), sec. 17(a), http://www.fns.usda.gov/cnd/Governance/Legislation/Historical/CNA-Oct-4-2005.pdf (accessed January 9, 2008).

[223]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(d)(2)(i), (2007): 331, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed July 16, 2007) (emphasis added).

[224]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(d)(2)(I), (2008): 354, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed July 10, 2008).

although that might be challenged.)[225]

Most states, in turn, likewise instruct local agencies to do to so.[226] California, for example, instructs local agencies to "consider the income of the family during the past 12 months or the family's current income, whichever most accurately reflects the family's income status."[227] Instructions to Arizona WIC agencies are similar: "Documentation can represent the past twelve (12) month's income or current rate of income, whichever is most representative of the family's status."[228] But in doing so, states usually simply authorize the use of either weekly, monthly, and annual income, and provide no guidelines for deciding which to use.[229] (The various income cutoffs are often monthly, weekly, and hourly amounts set as pro rata percentages of annual

[225]The WIC statute's income-eligibility provision references the School Lunch Act, which authorizes eligibility to be set at any amount below an "annual rate" of income of 185 percent of poverty "at the time the application is submitted." *Richard B. Russell National School Lunch Act*, as amended through Public Law 109–97, 109th Cong., 1st sess. (November 10, 2005), sec. 9(b)(9), http://www.fns.usda.gov/cnd/Governance/Legislation/Historical/NSLA-Nov-10-2005.pdf (accessed June 22, 2007). That could mean either the income in the prior twelve months or an annualized version of weekly or monthly income.

[226]California Department of Health Services, *WIC Program Manual* (Sacramento, CA: California Department of Health Services, October 2004), 5, http://www.wicworks.ca.gov/resources/wpm/section200/210-40.3.pdf (accessed July 5, 2007). See also Minnesota Department of Health, *Minnesota Operations Manual* (St. Paul, MN: Minnesota Department of Health, October 2006), 12, http://www.health.state.mn.us/divs/fh/wic/localagency/program/mom/chsctns/ch5/sctn5_2.pdf (accessed June 15, 2007); Arizona Department of Health Services, Division of Public Health Services, *Arizona WIC Program Policy and Procedure Manual* (Phoenix, AZ: Arizona Department of Health Services, January, 2007), 23, http://www.azdhs.gov/phs/oncdps/wic/wic_local/policymanual_pdf/chapter_02_certification.pdf (accessed July 5, 2007); and Wisconsin Department of Health and Family Services, *WIC Operations Manual* (Madison, WI: Wisconsin Department of Health and Family Services, April 2006), 12–13, http://dhfs.wisconsin.gov/wic/WICPRO/pdf_files/OpsManl/policy02-03.pdf (accessed July 5, 2007).

[227]California Department of Health Services, *WIC Program Manual* (Sacramento, CA: California Department of Health Services, October 2004), 5, http://www.wicworks.ca.gov/resources/wpm/section200/210-40.3.pdf (accessed July 5, 2007).

[228]Arizona Department of Health Services, Division of Public Health Services, *Arizona WIC Program Policy and Procedure Manual* (Phoenix, AZ: Arizona Department of Health Services, January, 2007), 23, http://www.azdhs.gov/phs/oncdps/wic/wic_local/policymanual_pdf/chapter_02_certification.pdf (accessed July 5, 2007).

[229]See, for example, Minnesota Department of Health, "Who is WIC for?" http://www.health.state.mn.us/divs/fh/wic/aboutwic/whoiswicfor.html (accessed February 9, 2007); California Department of Health Services, "WIC Income Guidelines," http://www.wicworks.ca.gov/about/general.html (accessed June 21, 2007); Ohio Department of Health, "Ohio WIC Program Income Guidelines," http://www.odh.ohio.gov/odhPrograms/ns/wicn/weligible.aspx (accessed November 6, 2007); Texas Department of State Health Services, Nutrition Services, "Texas WIC Income Guidelines," http://www.dshs.state.tx.us/wichd/secure-pol/2005_pdf_files/CS_12-0.pdf (accessed November 6, 2007), 2; and Pennsylvania Department of Health, "Women, Infants, and Children (WIC) Income Guidelines," http://www.dsf.health.state.pa.us/health/cwp/view.asp?A=179&Q=237114 (accessed November 6, 2007).

incomes below 185 of poverty.)

A few states give some specific examples of when current income versus annual income should be used. Texas, for instance, instructs local agencies to use annual income for "teachers who are paid on a 10-month basis" or when overtime wages that raise annualized income "are not a normal occurrence."[230] The rules are sometimes shaped by a combination of policy and political considerations. Thus, for example, as part of a long list, Wisconsin instructs agencies to use annual income "for farmers and other self-employed workers" (presumably because of the expected fluctuations in their incomes) and those who receive student grants, but "current rate of income" for the unemployed and strikers.[231]

But, in fact, it is impossible to capture—in a simple word formulation—all the variations involved, as illustrated by this not unlikely example given by the NRC:

> One might believe that, armed with all the relevant information on a WIC applicant, it would be possible to determine whether an individual is eligible for WIC or not. However, the language of the program's eligibility rules and regulations does not lead to strict determination of who is eligible and who is not. Consider the following extreme example. A mother with a child who is 2 years old has annual income that exceeds 185 percent of the poverty guideline. However, in May, she loses her job and her income falls below 185 percent of poverty. In June, she finds a new job and her income again exceeds the WIC income limits. In this case, would the 2-year-old child be eligible for WIC, and, if so, for how many months? If the mother goes to the WIC office in May, her child will meet the WIC income eligible limits and will be certified to receive benefits for 6 months. WIC regulations 246.7(i)(10) state that a participant may not withhold or conceal information to obtain benefits. One interpretation of this regulation is that, in June, the mother is obligated to report to the WIC offices that she has gained employment and report her income. This interpretation implies that the child would have had only one month of eligibility. However, based on correspondence from Food and Nutrition Service (FNS) officials, it is WIC policy to apply the regulation only when the mother is applying for benefits. The mother has no subsequent obligation to reveal that her family's income has changed.[232]

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[230]Texas Department of State Health Services, *WIC Policies and Procedures Manual* (Austin, TX: Texas Department of State Health Services, January 2006), 4–7, http://www.dshs.state.tx.us/wichd/secure-pol/2005_pdf_files/CS_07-0.pdf (accessed June 20, 2007).

[231]Wisconsin Department of Health and Family Services, *WIC Operations Manual* (Madison, WI: Wisconsin Department of Health and Family Services, April 2006), 12–13, http://dhfs.wisconsin.gov/wic/WICPRO/pdf_files/OpsManl/policy02-03.pdf (accessed July 5, 2007).

[232]Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program, Final Report* (Washington, DC: National Academies Press, 2003), 55.

As a result, in determining income eligibility, local WIC staff have wide latitude in deciding what income to use and the evidence indicates that they use the applicant's lowest income in determining eligibility. As Bitler, Currie, and Scholz describe: "A WIC clinic visited by one of the authors was explicit about the fact that they used the lowest of monthly income, annual income, or year-to-date income in order to determine eligibility for the program."[233] (This author observed similar behavior.)[234] According to the National Research Council (NRC):

> While the WIC regulations are vague about the time period for determining family income, many observers suggest that using monthly income of the family would be closer to the rules employed by states and local WIC personnel.[235]

Minnesota instructs local agencies to "assist applicants by suggesting ways to meet the income requirement."[236] The Texas regulations require that "an applicant's current rate of income shall be utilized to calculate monthly income."[237] Applicants are required to present one document of income from the previous sixty days, which is then to be used to determine the monthly income of the applicant.[238]

The difference between annual and current income can have a large impact of the number of eligibles. In 1998, according to Bitler, Currie, and Scholz, 12 percent more families qualified

[233]Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1156, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008).

[234]Douglas J. Besharov and Peter Germanis, "Is WIC as Good as They Say?" *The Public Interest* 134 (Winter 1999), 21-36, http://welfareacademy.org/pubs/wic.shtml (accessed November 29, 2007).

[235]Michele Ver Ploeg and David M. Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Phase I Report* (Washington, DC: National Academies Press, 2001), 41.

[236]Minnesota Department of Health, *Minnesota Operations Manual* (St. Paul, MN: Minnesota Department of Health, October 2006), 14, http://www.health.state.mn.us/divs/fh/wic/localagency/program/mom/chsctns/ch5/sctn5_2.pdf (accessed June 15, 2007) (emphasis added).

[237]Texas Department of State Health Services, Nutrition Services, "Income Screening as a Certification Requirement" in *WIC Policies and Procedures Manual* (Austin, TX: Texas Department of State Health Services, July 2008), 7, http://www.dshs.state.tx.us/wichd/secure-pol/2005_pdf_files/CS_07-0.pdf (accessed July 10, 2008).

[238]Texas Department of State Health Services, Nutrition Services, "Income Screening as a Certification Requirement" in *WIC Policies and Procedures Manual* (Austin, TX: Texas Department of State Health Services, July 2008), http://www.dshs.state.tx.us/wichd/secure-pol/2005_pdf_files/CS_07-0.pdf (accessed July 10, 2008).

for WIC under an average monthly income test than under an annual income test.[239] That does not include the impact of certification periods. When the Urban Institute added the impact of certification periods to its adjustment from annual to average monthly income for 2003 (the latest year available), the number of income-eligible infants increased by 35 percent and children by 12 percent.[240] Moreover, using an eligible-in-any-month income test dramatically increases eligibility estimates,[241] which would be closer to a current-income-at-application income test. Compared with the use of annual income, the SIPP data indicate that there would be between 52 and 64 percent more income-eligible infants in 1997 and 1998, respectively. The estimates for children are equally large—46 and 50 percent in the two years.[242]

Variations in (monthly) earnings are even greater for pregnant women, a key target group for WIC services. Based on calculations from the 1990–1996 SIPP panels, Aaron Yelowitz of the University of Kentucky concludes that "almost all households experience at least one month of decline in total family income during the pregnancy/postpartum."[243] Studies of family income trends before and after the birth show that the average and median incomes of both women and their families (1) fall slightly in the early stages of pregnancy, (2) fall sharply during the end of the third trimester, and (3) increase steadily for about twelve months after the birth of the child

[239]Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1162, table 7, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008).

[240]Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to author, June 14, 2007.

[241]The revised methodology estimates eligibles using both TRIM-imputed CPS data and SIPP data. For the estimate based on TRIM-imputed CPS data, the Urban Institute report states: "To capture the impacts of monthly fluctuations in income and program participation as well as the impact of certification periods, the NRC Panel recommended that an adjustment factor be applied to the initial CPS-based counts of eligible infants and children. . . . Each factor is calculated by dividing a SIPP-based estimate that uses all the SIPP monthly data to determine monthly eligibility and that applies certification periods by a SIPP-based estimate that mimics the type of estimates that can be computed from the March CPS." Linda Giannarelli and Sandi Nelson, *How Many Women, Infants, and Children are Eligible for WIC? Estimates from the CPS and SIPP* (Washington, DC: The Urban Institute, March 2006), 14–15. For the SIPP-based estimates, the report states that "[f]or each month, the SIPP data are used to determine if the income of the infant's or child's broadly-defined family (including all persons related by blood, marriage, or adoption) is below 185 percent of the applicable poverty guideline." Linda Giannarelli and Sandi Nelson, *How Many Women, Infants, and Children are Eligible for WIC? Estimates from the CPS and SIPP* (Washington, DC: The Urban Institute, March 2006), 20.

[242]Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program, Final Report* (Washington, DC: National Academies Press, 2003), 61.

[243]Aaron S. Yelowitz, "Income Variability and WIC Eligibility: Evidence from the SIPP," (working paper, National Bureau of Economic Research, 2002), 17.

but, at least in that period, not to pre-pregnancy levels.[244] According to Yelowitz:

> For a woman with median earnings, [her] earnings fall from more than $800 per month during the first trimester, to zero at birth, and rebound to approximately fifty percent of their initial level by the end of the postpartum period. At the 75th percentile, earnings fall by about 40 percent during pregnancy, but rebound to approximately 90 percent of their initial level by the end of the period.[245]

Modeling WIC eligibility rules, Yelowitz finds that the number of eligible women rises by as much as 74 percent (from nine months before birth to five months after) because of income declines during pregnancy. In the scenario that "is the closest approximation to the actual WIC eligibility process. . . . [A woman's] eligibility is evaluated in each month, but once she is certified as 'WIC eligible'—either through income eligibility or adjunctive eligibility, she does not need to be recertified until" birth, after birth, or up to six months postpartum.[246] "At the onset of the pregnancy, 29.6 percent of the women are WIC eligible." But that number rises to about 44.1 percent around one month before the birth of the child; "[a]t birth, 42.7 percent of women are eligible. From that point, WIC eligibility rises to 51.5 percent" at five months postpartum, declines to 36.8 percent at six months postpartum, and rises to 48.5 percent after that.[247]

Earlier, Gordon, Lewis and Radbill found similar patterns. Using 1990 and 1991 SIPP panels (but measuring family income instead of women's income alone, as Yelowitz does, and apparently not considering certification periods), they find that, for 1992, "[o]n average, family incomes fall in the period around a birth. Mean annualized family income for all women with a birth is approximately [$57,636] in the quarter before the pregnancy, falls steadily throughout pregnancy, and reaches its lowest point [(about $50,247)] right after birth [both in 2007 dollars], in the first quarter postpartum. The downward shift in income appears to occur throughout the income distribution."[248] As a result, the percentage of WIC eligible women increased by about 47

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[244]See, for example, Aaron S. Yelowitz, "Income Variability and WIC Eligibility: Evidence from the SIPP," (working paper, National Bureau of Economic Research, 2002), 11–13, 17; and Anne Gordon, Kimball Lewis, and Larry Radbill, *Income Variability Among Families with Pregnant Women, Infants, or Young Children* (Princeton, NJ: Mathematica Policy Research, Inc., January 1997), 37–56.

[245]Aaron S. Yelowitz, "Income Variability and WIC Eligibility: Evidence from the SIPP," (working paper, National Bureau of Economic Research, 2002): 11.

[246]Aaron S. Yelowitz, "Income Variability and WIC Eligibility: Evidence from the SIPP," (working paper, National Bureau of Economic Research, 2002), 19.

[247]Aaron S. Yelowitz, "Income Variability and WIC Eligibility: Evidence from the SIPP," (working paper, National Bureau of Economic Research, 2002), 20–21.

[248]Anne Gordon, Kimball Lewis, and Larry Radbill, *Income Variability Among Families with Pregnant Women, Infants, or Young Children* (Princeton, NJ: Mathematica Policy Research, Inc., January 1997), 38.

percent between the periods "before pregnancy" and zero-to-two months after birth.[249]

The authors note the regressive consequences of using this temporarily low income to establish WIC eligibility:

> The characteristics of women income eligible before a birth are different than those of women income eligible after a birth. In particular, women who were income eligible after the birth, on average, were more educated, were more likely to live with the father, were more likely to be white, and had fewer children than those who were income eligible during pregnancy.[250]

For these somewhat higher-income families, WIC benefits could be considered as a modest form of paid parental leave for married mothers, albeit not as generous as its proponents would wish.

Certification periods vs. income changes (especially during pregnancy). Once found income-eligible, successful applicants do not have their income eligibility recertified for six months or more—even if incomes rise during that "certification period" which would then make them otherwise ineligible. Because of WIC's six-month certification periods (up to one year for infants), the failure to consider income rises can, by itself, expand eligibility over the base of those with annual incomes below 185 percent of poverty by as much as 30 percent.[251] Longer eligibility periods, which states may establish, further raise the number of eligibles.

Recertification periods for receiving WIC benefits vary for the different categories of applicants. Although the formal rules round off periods to the end of the current month,[252] essentially: (1) pregnant women are certified for the length of their pregnancy plus an additional six weeks; (2) postpartum women are certified for up to six months; (3) breastfeeding women are certified at six month intervals up to the infant's first birthday or until the infant stops breastfeeding, whichever comes first; and (4) infants and children are certified every six months

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[249]Anne Gordon, Kimball Lewis, and Larry Radbill, *Income Variability Among Families with Pregnant Women, Infants, or Young Children* (Princeton, NJ: Mathematica Policy Research, Inc., January 1997), xvi. They estimate that the percent income-eligible of all women was 31.6 percent before pregnancy, 39.2 percent in the first trimester, 40.1 percent in the second trimester, and 42.3 percent in the third trimester. In the first two months after the birth, income eligibility increases to 46.3 percent, and then declines to 43.7 percent over the next nine months.

[250]Anne Gordon, Kimball Lewis, and Larry Radbill, *Income Variability Among Families with Pregnant Women, Infants, or Young Children* (Princeton, NJ: Mathematica Policy Research, Inc., January 1997), xv.

[251]This is an independent effect, and could be smaller when present in combination with the other practices discussed in this paper.

[252]Technically, the certification periods always end at the end of the month, so, for example, a breastfeeding woman is certified until the end of the month in which her infant turns one. (Thus, an infant born on June 8, 2006 would turn age one on June 8, 2007, but the mother would be certified until June 30.)

until age five (when they are no longer eligible).[253] (See table 1.)

State agencies, however, may permit local agencies to certify infants who are under six months of age up to the child's first birthday, as long as "the quality and accessibility of [WIC] health care services are not diminished"[254] (meaning that nutritional counseling and other services continue to be offered). States may also permit their local agencies "to certify a breastfeeding woman up to the last day of the month in which her infant turns 1 year old, or until the woman ceases breastfeeding, whichever occurs first."[255] Conversely, state agencies may authorize local agencies to use shorter certification periods than noted above "on a case-by-case basis," as long as they provide guidance to local agencies on this matter.[256] Lastly, longer or shorter periods of up to thirty days may be granted when there are scheduling difficulties.[257]

WIC regulations require state agencies to ensure that local agencies disqualify individuals *during* the certification period if they are no longer income eligible. The WIC regulations do not, however, require that local agencies reassess income eligibility during the period of certification.[258] WIC regulations require them to do so only "if the local agency receives

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[253]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(g) (2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed July 16, 2007).

[254]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(g) (2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed July 16, 2007).

[255]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(B)(g) (2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed January 9, 2008), 339.

[256]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(g) (2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed July 16, 2007).

[257]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(B)(3) (2007), 340, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed November 14, 2007), stating: "In cases where there is difficulty in appointment scheduling for persons referenced in paragraphs (g)(1)(iii), (iv) and (v) of this section, the certification period may be shortened or extended by a period not to exceed 30 days."

[258]The portion of the regulations that deal with changes in income makes no mention of any *requirement* for participants to report any changes in income, stating only: "The local agency must reassess a participant's income eligibility during the current certification period if the local agency receives information indicating that the participant's household income has changed. However, such assessments are not required in cases where sufficient time does not exist to effect the change. Sufficient time means 90 days or less before the expiration of the certification period." See U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of*

information indicating that the participant's household income has changed."[259] And neither the WIC statute nor regulations require participants to report any changes (increases) in income to the WIC agency.[260]

Some states, however, have rules requiring WIC participants to report changes in their income, household size, and other factors that could affect their eligibility for WIC during the certification period. Some require WIC applicants to sign a certification form saying that they will report changes in their income and other factors that affect their eligibility for WIC, even if these changes occur during the certification period. Washington's form, for example, provides:

> I will immediately report any changes in my income, family size, address, or eligibility for Medicaid, Basic Food Program, TANF (Temporary Assistance for Needy Families) or FDPIR (Food Distribution Program on Indian Reservations) . . .
>
> By signing this form I agree to the above.[261]

However, there is no evidence concerning the degree to which recipients report changes in income.

Most states, moreover, ignore changes in income. According to the NRC, "based on correspondence from Food and Nutrition Service (FNS) officials, it is WIC policy to apply [an income test] only when the mother is applying for benefits. The mother has no subsequent obligation to reveal that her family's income has changed."[262] Bitler, Currie, and Scholz made the same assumption, stating: "Once an individual becomes eligible for WIC, we assume that person

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Federal Regulations, title 7, sec. 246.7(1)(i) (2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed November 14, 2007), 340.

[259]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7 (2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed June 25, 2007).

[260]Michele Ver Ploeg and David M. Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 55; stating "based on correspondence from Food and Nutrition Service (FNS) officials, . . . the mother has no subsequent obligation to reveal that her family's income has changed."

[261]Washington State Department of Health, "WIC Program Rules," http://www.doh.wa.gov/cfh/wic/materials/rights/rights.pdf (accessed July 10, 2007). See also Idaho State WIC Office, "WIC Participant Rights and Responsibilities," http://healthandwelfare.idaho.gov/DesktopModules/DocumentsSortable/DocumentsSrtView.aspx?tabID=0&ItemID=3961&MId=11555&wversion=Staging (accessed July 10, 2007).

[262]Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 55.

remains eligible for the relevant certification period. . . . We incorporate certification periods in our eligibility and participation calculations."[263]

One reason frequently given for these certification periods is that shorter ones could place an undue burden on mothers who must miss work or make burdensome trips to WIC offices and long waiting times once there.[264] That does not, however, explain why there is no obligation to report rises in income. A better explanation might be the desire to continue the dietary counseling for those families deemed to be at nutritional risk.[265] And, of course, there is also the pervasive aversion to making income determinations shared with other social welfare programs. (Many have argued that frequent redeterminations are not cost effective.)[266]

Adding the impact of certification periods to estimated eligibility based on monthly income by itself increases the number of estimated eligibles in all categories. Based on data from Bitler, Currie, and Scholz, for 1998, accounting for certification periods increases the number of eligible infants by about 31 percent, increases the number of eligible children by about 28 percent, increases the number of eligible pregnant women by 25 percent, and increases the

[263]Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1159, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008).

[264]Victor Oliveira, Elizabeth Racine, Jennifer Olmsted, and Linda M. Ghelfi, *The WIC Program: Background, Trends, and Issues* (Washington, DC: USDA, September 2002), 26, http://www.ers.usda.gov/publications/fanrr27/fanrr27.pdf (accessed February 1, 2006).

[265]Nutrition education plays a crucial role in the WIC Program and is viewed as an essential benefit directed toward achieving positive changes in participant knowledge, attitudes, and behavior about food consumption. FNS regulations require WIC service agencies to offer to participants (or their mothers or other care providers) at least two nutrition education sessions during each—usually six-month— certification period. Participants may be counseled in one-on-one settings or attend group classes on a variety of health and nutrition-related topics. As part of nutrition education and counseling, breastfeeding is being promoted as the optimal source of infant nutrition. [Susan Bartlett, Ellen Bobronnikov, and Nicole Pacheco, *WIC Participant and Program Characteristics 2004* (Alexandria, VA: USDA, March 2006), 4, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/pc2004.pdf (accessed July 19, 2007).]

[266]See, for example, Mark A. Prell, "Certification Duration For Food Assistance Programs: An Economic Model With An Application to WIC," (paper, presented at Income Volatility and Implications for Food Assistance Programs II conference, Washington, DC, November 16–17, 2006), http://www.npc.umich.edu/news/events/income_volatility_agenda/PRELL_Model2.pdf (accessed October 2, 2008). Using the 1996 panel of the SIPP and administrative data, Prell estimated that the optimal WIC certification period (calculated by taking into account the administrative costs to the government of certification and of providing benefits to ineligible WIC recipients) is four months for children receiving WIC in households with high income volatility as opposed to the current six months.

number of eligible postpartum women by about 16 percent.[267] As mentioned above, Urban Institute researchers estimated that the combination of using current income and applying WIC's certification periods results in an eligibility increase of between 52 and 64 percent more income-eligible infants in 1997 and 1998, respectively. The estimates for children are equally large—46 and 50 percent in the two years.[268]

Because it uses annual income as the base (rather than monthly income), the NRC estimate is even higher:

> Unlike the CPS data, the SIPP panel data permit a more accurate representation of the WIC certification process. When this process is considered (e.g., if the monthly family income for a child is below the income eligibility threshold, the child is considered eligible for the next 6 months; for infants, someone who becomes eligible in a month is then considered eligible for the next 12 months or until the end of the calendar year for which the estimates are being made), combined with the use of SIPP monthly income, there remains a significant and large increase in the number of months that infants and children are income eligible compared with the situation when annual income is used. In 1997 and 1998, there are 46 and 54 percent more infants and 34 and 36 percent more children who are income eligible for WIC.[269]

The NRC also separately estimated the impact of certification periods on eligibility. For example, a child may be income-eligible for only two months out of the year, though his certification period was six months or even twelve months. It found that about 18 percent of infants and 15 percent of children were income-eligible for less months than they were certified.[270] Of these, infants were certified for an average of 5.8 months but were eligible for an average of only 1.6 months and children were certified for an average of 4.5 months but only eligible for an average of 1.9 months.[271]

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[267]Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1162, table 7, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008).

[268]Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program, Final Report* (Washington, DC: National Academies Press, 2003), 61.

[269]Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 61.

[270]Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 66.

[271]Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 67.

Expanded adjunctive eligibility vs. income caps. Eligibility for WIC is also established adjunctively (in some other programs called "categorically"), that is, it is automatically granted to members of families who are receiving[272] food stamps, Medicaid, or TANF, if they can "provide documentation of receipt of assistance."[273] When this provision was added to the law, income eligibility for these programs was set below 185 percent of poverty. Hence, the original purpose of adjunctive eligibility was not to expand eligibility, but simply to facilitate the enrollment process. Recent expansions of the Medicaid and SCHIP programs, however, have sharply raised the income limits for those programs as high as 300 percent of poverty, making adjunctive eligibility potentially major basis of WIC eligibility. In fact, barring legislative change, there is no limit to how much WIC eligibility can expand—based on expansions of Medicaid and SCHIP.

WIC's adjunctive eligibility was first established in 1989 as a convenient aid to eligibility determinations when applicants were already receiving benefits from programs whose income eligibility limits were then *lower* than WIC's.[274] Thus, during the Senate floor debate when this provision was added to the law, Senator Robert Dole (R-KS) explained that one of the purposes of adjunctive eligibility was to increase "WIC's coordination with other public assistance programs,"[275] and Senator Patrick Leahy (D-VT) added that it was also meant "to reduce the level of paperwork involved" in determining income eligibility.[276]

Adjunctive eligibility did not increase the number of WIC eligibles because WIC's income-eligibility limit was higher than those of the three other programs. It merely facilitated

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[272]Although the statute uses the word "receiving," WIC regulations do not require applicants to actually be receiving assistance, as long as they have been "certified eligible to receive assistance" under the programs. U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7 (2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed June 25, 2007). The certification is made by the Food Stamp, TANF, or Medicaid programs, not WIC. Zoë Neuberger, Center on Budget and Policy Priorities, e-mail message to author, June 29, 2007. Presumably, the difference is de minimus, and most researchers estimate adjunctive eligibility on the basis of being "enrolled in" or being "participants" of the food stamp, Medicaid, or TANF programs. See Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 50; Marianne Bitler and Janet Currie, "Medicaid at Birth, WIC Take-Up, and Children's Outcomes" (discussion paper, Institute for Research on Poverty, University of Wisconsin-Madison, Madison, WI, August 2004), 2, http://www.irp.wisc.edu/publications/dps/pdfs/dp128604.pdf (accessed June 25, 2007).

[273]*Child Nutrition Act of 1966*, as amended through Public Law 109–85, 109th Cong., 1st sess. (October 4, 2005), sec. 17(d), http://agriculture.senate.gov/Legislation/Compilations/FNS/CNA66.pdf (accessed June 25, 2007).

[274]Dawn Horner, Wendy Lazarus, and Beth Morrow, "Express Lane Eligibility," *Health Insurance for Children* 13, no. 1 (Spring 2003): 225, http://www.futureofchildren.org/usr_doc/tfoc13-1q.pdf (accessed December 3, 2007).

[275]Senator Dole of Kansas, speaking for the Child Nutrition and WIC Reauthorization Act, on October 24, 1989, to the President of the Senate, HR 24, 101st Cong., 1st sess., *Congressional Record* 135: S 14014.

[276]Senator Leahy of Vermont, speaking for the Child Nutrition and WIC Reauthorization Act, on October 24, 1989, to the President of the Senate, HR 24, 101st Cong., 1st sess., *Congressional Record* 135: S 14022.

eligibility determinations for those clearly eligible for WIC. (Further evidence of this intent is the provision that allows states to establish adjunctive eligibility for other state-administered, means-tested programs, so long as eligibility for them is based on income at or below 185 percent of poverty.)[277] Adjunctive eligibility satisfies only the income element of WIC eligibility; applicants must still establish that they are at nutritional risk (although, as described below, that is all but assumed by the program). (Inversely, before recipients can be dropped from WIC because they are no longer adjunctively eligible, however, their possible income eligibility must be considered.)[278]

Although not originally intended, adjunctive eligibility now makes many families eligible for WIC even though their incomes are above WIC's income limits—largely because of unanticipated expansions in Medicaid income-eligibility.[279] When the adjunctive eligibility provision was added in 1989, income-eligibility for Medicaid was far below income-eligibility for WIC—usually 133 percent versus 185 percent of poverty, respectively.[280] Since then, however, many elements of the Medicaid program may have higher income limits (at state option). In addition, states that use Medicaid to implement their SCHIP programs also create adjunctive eligibility.[281]

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[277]See U.S. Department of Agriculture, Food and Nutrition Service, "Food Stamp and Food Distribution Program," *Code of Federal Regulations*, title 7, sec. 246.7(B) (2007): 334, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed December 7, 2007), stating: "The State agency may accept, as evidence of income within Program guidelines, documentation of the applicant's participation in State-administered programs not specified in this paragraph that routinely require documentation of income, provided that those programs have income eligibility guidelines at or below the State agency's Program income guidelines."

[278]U.S. Department of Agriculture, Food and Nutrition Service, "Food Stamp and Food Distribution Program," *Code of Federal Regulations*, title 7, sec. 246.7(B)(1)(ii) (2007): 340, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed December 7, 2007), stating that "adjunctively-eligible WIC participants (as defined in paragraphs (d)(2)(vi)(A) or (d)(2)(vi)(B) of this section) may not be disqualified from the WIC Program solely because they, or certain family members, no longer participate in one of the other specified programs. The State agency will ensure that such participants and other household members currently receiving WIC benefits are disqualified during a certification period only after their income eligibility has been reassessed based on the income screening procedures used for applicants who are not adjunctively eligible."

[279]See Kimball Lewis and Marilyn Ellwood, *Medicaid Policies and Eligibility for WIC* (Cambridge, MA: Mathematica Policy Research, Inc., July 24, 1998).

[280]Victor Oliveira, Elizabeth Racine, Jennifer Olmsted, and Linda M. Ghelfi, *The WIC Program: Background, Trends, and Issues* (Washington, DC: USDA, September 2002), http://www.ers.usda.gov/publications/fanrr27/fanrr27.pdf (accessed February 1, 2006).

[281]Zoë Neuberger, Center on Budget and Policy Priorities, e-mail message to author, June 29, 2007, stating: "With regard to your first question, my understanding is that a state can use SCHIP funds either to expand its Medicaid program or to create a separate SCHIP program (or both). Medicaid expansions funded with SCHIP dollars create adjunctive eligibility for WIC. Separate SCHIP programs do not create adjunctive eligibility for WIC."

Moreover, WIC uses gross income to determine income eligibility,[282] while Medicaid allows states to disregard a certain amount or percentage of income in determining eligibility.[283] According to the Kaiser Family Foundation, as of January 2008, forty-six states did not use gross income tests to determine initial Medicaid eligibility, and the vast majority disregarded specific amounts of income from $90 to $150. Three states disregarded at least 20 percent of an applicant's income and many increased income disregards after twelve months of enrollment in Medicaid. In addition, forty-four states disregarded at least $175 of child care expenses per month with four states disregarding all child care expenses.[284]

In each of the previous four budgets, the Bush administration has proposed capping Medicaid adjunctive eligibility for WIC at 250 percent of poverty, but the proposal has been consistently blocked by Congress.[285] Besides substantive objections to limiting eligibility, a main argument against such caps is that local agencies have become so dependent on adjunctive eligibility that many have limited capacity to perform additional income determinations without an increase in staff (which, it is sometimes argued, could cost as much as would be saved).

[282]U.S. Department of Agriculture, Food and Nutrition Service. "WIC Income Eligibility Guidelines," http://www.fns.usda.gov/wic/howtoapply/incomeguidelines07-08.htm (accessed March 12, 2008).

[283]U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services, "Medicaid Eligibility Groups and Less Restrictive Methods of Determining Countable Income and Resources: Questions and Answers," http://www.cms.hhs.gov/MedicaidEligibility/downloads/DefinitionElig1902r2.pdf (accessed March 12, 2008).

[284]Donna Cohen Ross, Aleya Horn, Robin Rudowitz, and Caryn Marks, *Determining Income Eligibility in Children's Health Coverage Programs: How States Use Disregards in Children's Medicaid and SCHIP* (Washington, DC: Kaiser Family Foundation, May 2008), http://www.kff.org/medicaid/upload/7776.pdf (accessed February 17, 2009).

[285]Office of Management and Budget, *Budget of the United States Government* (Washington, DC: Office of Management and Budget, 2005–2008).

As table 13 shows, in 2004, the primary route for adjunctive eligibility for infants (in families with incomes above 185 percent of poverty) was through Medicaid.

Table 13

Percent of Families Adjunctively Eligible for WIC, by Monthly Income

All Families with an Infant and All Families Receiving WIC for an Infant
Survey of Income and Program Participation (SIPP)
2004

	% Medicaid recipients	% Food Stamp recipients	% TANF recipients	% receiving Medicaid, Food Stamps, or TANF
All families with an infant				
<100%	44.4%	39.6%	9.5%	61.8%
100–149%	29.8%	19.9%	3.5%	43.7%
150–185%	22.9%	9.1%	0.7%	29.0%
185–199%	15.4%	3.3%	0.0%	16.6%
≥200%	8.0%	2.3%	0.8%	9.4%
All families receiving WIC for an infant2				
<100%	53.9%	49.8%	12.7%	75.2%
100–149%	36.2%	22.4%	4.1%	49.9%
150–185%	33.0%	16.6%	1.3%	45.0%
185–199%	28.8%	8.1%	0.0%	31.7%
≥200%	35.8%	13.6%	4.5%	42.9%

Source: Richard Bavier, e-mail message to author, April 7, 2008.

A number of estimates have been made on the impact of adjunctive eligibility, but they are difficult to compare because they refer to different years (often before the major Medicaid/SCHIP expansions) and because of differences in how they treat other aspects of eligibility. As Bitler, Currie, and Scholz note, for 1998:

> The National Survey of WIC Participants implies that over 94 percent of WIC recipients have incomes below 185 percent of poverty, suggesting that most adjunctively-eligible WIC households would also be income eligible. The CPS data imply that roughly 13 percent of WIC recipients have incomes above 185 percent of poverty, while SIPP data imply that 23 percent have incomes above 185 percent of poverty. Hence, the data sets provide very different perspectives on the importance of adjunctive eligibility on the targeting of WIC benefits.[286]

The NRC used both the CPS and the SIPP to measure the increase of those eligible from an annual income base, using TRIM-adjusted figures for enrollment in food stamps, TANF, and Medicaid. Using the CPS, the NRC found that, in 1998, accounting for full adjunctive eligibility based on Medicaid, TANF, and food stamps increases the number of infants who were eligible to receive WIC benefits increased by 19 percent, from 39.2 percent to 46.7 percent.[287] The number of eligible children increases by about 14 percent, from 40.4 percent to 46 percent.[288]

The NRC's SIPP-based estimates were considerably smaller, however, apparently because the SIPP does not impute missing recipients in its counts (which TRIM does) and because the SIPP, which uses a monthly income measure (rather than an annual one), finds more people to be income-eligible for WIC.[289] According to the NRC:

> The marginal impact of using the SIPP-reported enrollment in TANF, food stamps, and Medicaid to simulate adjunctive eligibility is smaller in comparison to the impact of monthly income and is smaller in comparison with the impact that was found in the CPS.

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[286]Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1156, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008).

[287]Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 62.

[288]Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 62.

[289]See Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 63.

> Compared with the estimates that incorporate monthly income and certification periods, adjunctive eligibility increases the estimates of the number of WIC-eligible infants by roughly 6 percent, while estimates of income-eligible children are increased by 5 percent. To the extent that comparisons between the CPS and SIPP can be made, these estimates suggest that a significant proportion of the impact of adjunctive eligibility found in the CPS reflected eligibility that also could be gained through consideration of low monthly income.[290]

Linda Giannarelli and her Urban Institute colleagues have performed a number of eligibility analyses for the USDA. In one study, she and Joyce Morton used 1998 TRIM-adjusted CPS data to estimate eligibility. After adjusting for subfamilies, monthly income, and certification periods, they found that adjunctive eligibility increased the number of eligible infants by about 25 percent (from about 2 million to about 2.5 million), and the number of eligible children by about 18 percent (from about 7.8 million to about 9.2 million).[291] In another study, Giannarelli and Nelson used data from the 1998 SIPP panel. After adjusting for monthly income and certification periods, they found that adjunctive eligibility increased the number of eligible infants by about 12 percent (from about 1.9 million to about 2.1 million) and the number of eligible children by about 9 percent (from about 7.5 million to 8.2 million).[292]

Using the 2003 Medical Expenditure Panel Survey (MEPS), Patton Boggs projected the number of WIC recipients in 2008 that would also receive Medicaid and have incomes over 185 percent of poverty (using used the 2003 Medical Expenditure Panel Survey (MEPS). Assuming that adjunctive eligibility and income distribution "are proportional to the distributions observed in MEPS 2003,"[293] the study projected that about 20 percent (or more than 1.6 million) WIC recipients would have incomes over 185 percent of poverty and about one million recipients would have incomes above 250 percent of poverty. The study also estimated that capping adjunctive eligibility at 250 percent of poverty would save about $550 million in FY 2008.[294] (Of course, the net savings would have to take into account the increase in administrative costs for verifying income.)

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[290]See Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 63.

[291]Linda Giannarelli and Joyce Morton, "Estimating the Number of Infants and Children Who Are Income Eligible for WIC" (presentation, Panel to Evaluate the USDA's Methodology for Estimating Eligibility and Participation for the WIC program, March, 2000).

[292]Linda Giannarelli and Sandi Nelson, *How Many Women, Infants, and Children are Eligible for WIC? Estimates from the CPS and SIPP* (Washington, DC: The Urban Institute, March 2006).

[293]Karen Thiel, "Estimating the Impact of Adjunctive Eligibility for WIC" (presentation, National WIC Association, Washington, DC, March 9, 2008).

[294]Karen Thiel, "Estimating the Impact of Adjunctive Eligibility for WIC" (presentation, National WIC Association, Washington, DC, March, 9, 2008).

Mark Prell, an economist at the USDA, estimated that the per case cost of WIC recertification for WIC agencies was about $78.37 per household.[295] Assuming this is accurate, even if every infant on WIC required an income determination, the cost would be only about $190 million. And that does not take into account the presumed ability of states to make the eligibility determination electronically from Medicaid records and then make that information available to the WIC grantee.

Table 14 portrays the results of one of the steps in the USDA's revised methodology for estimating WIC eligibility. But it can easily be misinterpreted. It shows a steady increase in the number of adjunctively eligible persons with annual incomes above 185 percent of poverty compared to the number below. However, this reflects the individual impact of adjunctive eligibility when income eligibility is based on annual income. (As mentioned above, the NRC found that, when income eligibility is determined based on current income and certification periods are taken into consideration, the impact of adjunctive eligibility is smaller.)

Thus, in 2005, the Bush Administration estimated that capping Medicaid adjunctive eligibility at 250 percent of poverty would only reduce the number of WIC recipients by 5,000.[296] The explanation for the vast disparity in the estimates seems to be in the method of calculating eligibility. The Patton Boggs estimate calculates adjunctive eligibility without making adjustments for monthly income, certification periods, or subfamily income. The Administration's estimate calculates adjunctive eligibility after making the aforementioned adjustments.

[295]Mark A. Prell, "Certification Duration For Food Assistance Programs: An Economic Model With An Application to WIC," (paper, presented at Income Volatility and Implications for Food Assistance Programs II conference, Washington, DC, November 16–17, 2006), http://www.npc.umich.edu/news/events/income_volatility_agenda/PRELL_Model2.pdf (accessed October 2, 2008).

[296]Zoë Neuberger, Center on Budget and Policy Priorities, e-mail message to author, April 7, 2008.

Table 14

Adjunctively Eligible Persons with Annual Family Incomes above 185% of Poverty

1994–2003

Year	All		Infants		Children		Women					
							Pregnant		Breastfeeding		Postpartum	
	Number	Percent above 185 of poverty	Number	Percent above 185 of poverty	Number	Percent above 185 of poverty	Number	Percent above 185 of poverty	Number	Percent above 185 of poverty	Number	Percent above 185 of poverty
1994	1,348,811	12%	198,427	12%	881,272	12%	130,252	12%	51,745	12%	87,115	12%
1995	1,429,602	14%	255,757	16%	825,405	12%	167,885	16%	70,872	16%	109,684	16%
1996	1,404,673	14%	265,453	17%	777,272	12%	174,250	17%	73,856	17%	113,842	17%
1997	1,166,098	12%	190,496	13%	712,018	11%	125,046	13%	60,042	13%	78,497	13%
1998	1,209,019	13%	225,495	15%	668,481	11%	148,020	15%	80,483	15%	86,540	15%
1999	1,444,283	16%	263,447	18%	813,286	14%	172,000	18%	94,179	18%	101,371	18%
2000	1,700,425	18%	329,746	21%	904,557	16%	217,954	21%	120,740	21%	127,427	21%
2001	1,827,312	19%	310,929	19%	1,075,633	18%	205,517	19%	117,015	19%	118,218	19%
2002	1,936,930	20%	281,069	20%	1,255,378	20%	185,780	20%	108,589	20%	106,114	20%
2003	2,084,585	21%	346,637	23%	1,245,213	20%	229,119	23%	126,731	23%	136,885	23%

Sources: For number of infants and children, Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to author, June 14, 2007; and for the number of women in all categories, author's calculation based on data from Edward Herzog, U.S. Department of Agriculture, Food and Nutrition Service, e-mail message to author, June 14, 2007.

Note: The derivation of the number of women in each category (pregnant, postpartum, and breastfeeding women) uses the number of fully eligible infants (after the CPS data have been adjusted for CPS miscount, adjunctive eligibility, monthly income and nutritional risk factors) as the starting point to calculate those who are adjunctively eligible and those who are below 185 percent of the poverty guideline. In this computation, we assume that the ratio of adjunctively eligible women to women at or below 185 percent of poverty is the same as the ratio for adjunctively eligible infants to infants at or below 185 percent of poverty. This assumption is the same as the one used by the current USDA methodology that uses fully eligible infants (after adjusting for adjunctive eligibility) as the base for estimating the number of women in each category.

The foregoing estimates are based on Medicaid income-eligibility levels in the years analyzed (1998, and 1994–2003). Since then, income limits have risen—sometimes substantially. Between 2002 and 2008, the number of states with Medicaid (or SCHIP-funded Medicaid) income caps for infants of above 200 percent of poverty rose from seven to eight, and for children from five to seven. The number of states with income eligibility for infants at or above 300 percent of poverty rose from three to five, and for children from two to four.

In addition, in 2008, three more states had major proposals to expand Medicaid eligibility that had either been adopted but not yet implemented or had a serious chance of passing the state legislature in the coming year.[297] Proposals in two of the states will raise eligibility to 300 percent of poverty.

[297]Zoë Neuberger, Center on Budget and Policy Priorities, e-mail message to author, July 7, 2008.

Table 15

Infant and Children's Medicaid and SCHIP-Funded Medicaid Income Eligibility as a Percent of Poverty

(Shaded states have triggered WIC adjunctive eligibility at 200% of poverty; cross-hatched states have triggered WIC adjunctive eligibility above 200% of poverty)

State	Medicaid Eligibility *and* SCHIP-Funded Expansions of Medicaid (2008)		Proposed SCHIP-funded Medicaid Expansions (2008)
	Infants 0–1	Children 1–5	Child Eligibility
Alabama	133%	133%	
Alaska	175%	175%	
Arizona	140%	133%	
Arkansas	200%	200%	
California	200%	133%	
Colorado	133%	133%	
Connecticut	185%	185%	
Delaware	200%	133%	
District of Columbia	300%	300%	
Florida	200%	133%	
Georgia	200%	133%	
Hawaii	300%	300%	
Idaho	133%	133%	
Illinois	200%	133%	
Indiana	200%	150%	
Iowa	200%	133%	300% (infants only)
Kansas	150%	133%	
Kentucky	185%	150%	
Louisiana	200%	200%	
Maine	200%	150%	
Maryland	300%	300%	
Massachusetts	200%	150%	
Michigan	185%	150%	
Minnesota	280%	275%	
Mississippi	185%	133%	
Missouri	185%	150%	
Montana	133%	133%	
Nebraska	185%	185%	
Nevada	133%	133%	
New Hampshire	300%	185%	
New Jersey	200%	133%	
New Mexico	235%	235%	

Table 15

Infant and Children's Medicaid and SCHIP-Funded Medicaid Income Eligibility as a Percent of Poverty

(Shaded states have triggered WIC adjunctive eligibility at 200% of poverty; cross-hatched states have triggered WIC adjunctive eligibility above 200% of poverty)

State	Medicaid Eligibility *and* SCHIP-Funded Expansions of Medicaid (2008)		Proposed SCHIP-funded Medicaid Expansions (2008)
	Infants 0–1	Children 1–5	Child Eligibility
New York	200%	133%	
North Carolina	200%	200%	
North Dakota	133%	133%	
Ohio	200%	200%	300%
Oklahoma	185%	185%	250%
Oregon	133%	133%	
Pennsylvania	185%	133%	
Rhode Island	250%	250%	
South Carolina	185%	150%	
South Dakota	140%	140%	
Tennessee	185%	133%	
Texas	185%	133%	
Utah	133%	133%	
Vermont	300%	300%	
Virginia	133%	133%	
Washington	200%	200%	
West Virginia	150%	133%	
Wisconsin	250%	250%	
Wyoming	133%	133%	

Sources: Kaiser Commission on Medicaid and the Uninsured, "Income Eligibility Levels for Children's Regular Medicaid and Children's SCHIP-funded Medicaid Expansions by Annual Incomes and as a Percent of Federal Poverty Level (FPL), 2008" Kaiser State Health Facts, http://www.statehealthfacts.org/comparetable.jsp?ind=203&st=3 (accessed March 28, 2008); National Council of State Legislatures, "Children's Health Insurance Reform: Increasing Coverage and Expanding Access in the States," National Council of State Legislatures, http://www.ncsl.org/programs/health/kidsins.htm (accessed March 28, 2008); and Zoë Neuberger, Center on Budget and Policy Priorities, e-mail message to author, July 7, 2008).

Note: Proposed expansions only include those measures that have been passed or have a serious chance of passing state legislatures.

Table 16 summarizes the expansions that took place between 2002 and 2008, as well as the pending proposed expansions.

Table 16

Child Eligibility for Medicaid and SCHIP-Funded Medicaid Expansions

	>185% of poverty	>200% of poverty	≥300% of poverty
2002 (January)			
Infants (0–1)	24	7	3
Children (1–5)	13	5	2
2008 (January)			
Infants (0–1)	25 (3 pending)	9 (3 pending)	5 (2 pending)
Children (1–5)	13 (2 pending)	8 (2 pending)	4 (1 pending)

Sources: For 2002, Donna Cohen Ross and Laura Cox, Center on Budget and Policy Priorities, "Enrolling Children and Families in Health Coverage: The Promise of Doing More" (Washington, DC: CBPP, 2002), http://www.cbpp.org/6-30-02health.pdf (accessed April 9, 2008); for 2008, Kaiser Commission on Medicaid and the Uninsured, "Income Eligibility Levels for Children's Regular Medicaid and Children's SCHIP-funded Medicaid Expansions by Annual Incomes and as a Percent of Federal Poverty Level (FPL), 2008" Kaiser State Health Facts, http://www.statehealthfacts.org/comparetable.jsp?ind=203&st=3 (accessed April 1, 2008); and Zoë Neuberger, Center on Budget and Policy Priorities, e-mail message to author, July 7, 2008).

More expansions are on the horizon. Adjunctive eligibility based on the receipt of Medicaid (directly or through SCHIP)—although not yet a major independent basis of WIC eligibility—and promises to become even more so in the years to come. How much a difference could these Medicaid expansions make? In the 2004 SIPP, Bavier found that 10 percent of all families with an infant that had annual incomes at or above 185 percent of poverty were already adjunctively eligible for WIC. Only 62 percent of these families were actually receiving WIC.[298] If all of these adjunctively eligible infants went on WIC, about 155,000 more infants would be added to the program, at an annual cost of about $66 million (based on 2005 cost of food packages).

Some have questioned whether those with higher incomes who are newly eligible for Medicaid, and hence WIC, will actually enroll in WIC. Using combined data on four-year-olds in the 1996 and 2001 SIPP panels, Bitler and Currie found that, when comparing states that expanded Medicaid through SCHIP to those that did not, WIC eligibility for four-year-olds between 200 and 350 percent of the poverty thresholds increased by 7 percent points (from 4 to 11 percent), but enrollment increased only by 0.6 percent points (from 1.2 to 1.8 percent). They conclude that enrollment "among children who became eligible because of SCHIP was low, and so SCHIP had little impact on WIC caseloads."[299]

This analysis, however, was for four-year-olds, for whom participation rates are low to start with.[300] For infants, Bitler and Currie say that their study "shows that the income cutoff in effect at the time of the child's birth has a strong positive effect on the child's probability of being on WIC at age 4."[301] From this, they conclude "that Medicaid and WIC use are very closely linked among infants, so that Medicaid policies that affect take-up among infants are likely to have long-term effects on participation in the WIC program. In particular, the income cutoffs for Medicaid that were in effect when a child was born affect the probability of WIC participation 4 years later."[302] Thus, higher Medicaid income cutoffs lead to higher enrollment of infants, which

[298]Richard Bavier, e-mail message to author, April 7, 2008.

[299]Marianne Bitler and Janet Currie, "Medicaid at Birth, WIC Take-Up, and Children's Outcomes" (discussion paper, Institute for Research on Poverty, University of Wisconsin-Madison, Madison, WI, August 2004), 3, http://www.irp.wisc.edu/publications/dps/pdfs/dp128604.pdf (accessed June 25, 2007).

[300]See the text at footnote //??77, citing Susan Bartlett, Ramona Olvera, Nicole Gill, and Michele Laramie, *WIC Participant and Program Characteristics 2004* (Alexandria, VA: USDA, March 2006), v, exhibit E.1, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/pc2000.pdf (accessed December 3, 2007).

[301]Marianne Bitler and Janet Currie, "Medicaid at Birth, WIC Take-Up, and Children's Outcomes" (discussion paper, Institute for Research on Poverty, University of Wisconsin-Madison, Madison, WI, August 2004), 20–22, http://www.irp.wisc.edu/publications/dps/pdfs/dp128604.pdf (accessed December 6, 2007).

[302]Marianne Bitler and Janet Currie, "Medicaid at Birth, WIC Take-Up, and Children's Outcomes" (discussion paper, Institute for Research on Poverty, University of Wisconsin-Madison, Madison, WI, August 2004), 27, http://www.irp.wisc.edu/publications/dps/pdfs/dp128604.pdf (accessed December 6, 2007).

in turn leads to higher enrollment of children in later years, because the infants enrolled in WIC are more likely to stay in the program as they become older.

Moreover, we are in the early stages of what could be a major expansion of Medicaid. In the coming years, expect major efforts to enroll more children and families—that will add many more higher income families to Medicaid and, hence, WIC.

Through its effect on food stamp eligibility, the Temporary Assistance for Needy Families (TANF) program is another way that eligibility for WIC can exceed 185 percent of poverty. As of this writing, however, this is not a significant source of WIC eligibility, so we discuss it in Appendix 3.

Nutritional risk assumed. In addition to being income-eligible or adjunctively eligible, WIC applicants are supposed to be at "nutritional risk." It appears, however, that this proviso has little practical impact on eligibility determinations. In a widely noted practice, WIC agencies find almost all applicants to be at nutritional risk. The failure to assess actual nutritional risk can, by itself, expand eligibility by as much as 25 percent.[303]

The determination of nutritional risk is supposed to be made at a WIC office by a professional on staff or by an outside qualified health professional. At a minimum, it is supposed to include the measurement of height and weight and a blood check for anemia.

> If the applicant is income eligible, the next step is a nutrition certification, which is based on medical documentation and an abbreviated physical examination by a physician, nutritionist, nurse, or specially trained health care worker. The examination typically involves measuring the applicant's height and weight, reviewing the applicant's medical history, and drawing blood to test for anemia. It also includes an assessment of the applicant's dietary habits.[304]

The WIC regulations define "nutritional risk" as follows:

- Detrimental or abnormal nutritional conditions detectable by biomedical or anthropometrical measurements (such as nutritional anemia, overweight, or underweight).

- Other documented nutritionally related medical conditions (such as metabolic disorders, failure to thrive, and chronic infections).

[303]This is an independent effect, and could be smaller when present in combination with the other practices discussed in this paper.

[304]Douglas J. Besharov and Peter Germanis, *Rethinking WIC: An Evaluation of the Women, Infants, and Children Program* (Washington, DC: The AEI Press, 2001), 18.

- Dietary deficiencies that impair or endanger health (such as inadequate dietary patterns that can be assessed by a 24-hour dietary recall).
- Conditions that directly affect nutritional health (such as alcoholism and drug abuse).
- Conditions that predispose persons to inadequate nutritional patterns or nutritionally related medical conditions (such as homelessness or migrancy).[305]

The states may establish their own lists of specific conditions deemed to be nutritional risks,[306] but can only choose from a list prepared by the FNS.[307]

In 2006, 64 percent of women participating in WIC had dietary deficiencies, 64 percent had anthropometric risks (primarily obesity), 49 percent had clinical risks (including being young or pregnant with twins), 19 percent had biochemical risks, and 16 percent had "other" risks. Eighty-two percent of certified children had dietary deficiencies, 38 percent had anthropometric risks, 8 percent had clinical risks, 10 percent had biochemical risks, and 3 percent had other risks. Twenty-two percent of infants had dietary deficiencies, 34 percent had anthropometric risks, 5 percent had clinical risks, and 1 percent had biochemical risks. Eighty-one percent of WIC infants could have been determined WIC eligible solely on the basis of their mothers' having been deemed to be at nutritional risk.[308] (Infants are automatically eligible if their mother is eligible, and that probably accounts for the high number deemed to have dietary deficiencies.)[309]

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[305]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.2, (2007), 338, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed July 16, 2007).

[306]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.2, (2007), 359, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed August 8, 2008).

[307]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Policy Memorandum 98–9" (Alexandria, VA: USDA, June 1998).

[308]Susan Bartlett, Ramona Olvera, Nicole Gill, and Michele Laramie, *WIC Participant and Program Characteristics 2004* (Alexandria, VA: USDA, March 2006), http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/pc2000.pdf (accessed December 3, 2007). According to Bartlett et al., "Other risks include regression/transfer (nutritional risk unknown), presumptive eligibility, breastfeeding mother and infant dyad, and homelessness/migrancy."

[309]See U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(1)(i) (2007): 336, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed November 14, 2007), stating: "An infant under six months of age may be determined to be at nutritional risk if the infant's mother was a Program participant during pregnancy or of medical records document that the woman was at nutritional risk during pregnancy because of detrimental or abnormal nutritional conditions detectable by biochemical or anthropometric measurements or other documented nutritionally related medical conditions."

On the surface, then, the phrase "nutritional risk" and the procedures required to determine it suggest that, to be enrolled into WIC, applicants must be faced a serious threat to physical health or well-being. But that is not the case. In a 1996 report, the Institute of Medicine's Committee on Scientific Evaluation of WIC Nutrition Risk Criteria, described how some states have used "generous" cutoff points and "loosely defined risk criteria." The committee concluded that there were "serious gaps on the evidence" for some of the risk criteria, with unreliable tools used to measure them.[310] As a result, Peter Rossi describes that "street-level bureaucrats" were able to qualify someone who was marginally at risk or not at risk at all.[311]

In 1999, the USDA attempted to tighten the process for determining nutritional risk.[312] It reduced the number of allowable nutritional risk criteria to eighteen, and provided definitions and cut-off points for all but two of the criteria: "failure to meet Dietary Guidelines" and "inadequate diet."[313] Unfortunately, by not providing definitions and cut-off points for these two criteria, it negated the tightening effort.

These attempted reforms have had little or no effect. A 2001 NRC study concluded that, in practice, just about all WIC applicants are determined to meet at least one of these guidelines, that is, to be at nutritional risk.[314] Besharov and Germanis wrote in 2001, "most agencies seem to have assumed that *all* income-eligible applicants are at nutritional risk.[[315]] Hence, in most places,

[310]Institute of Medicine, *WIC Nutrition Risk Criteria: A Scientific Assessment* (Washington, DC: National Academies Press, 1996), 7.

[311]Peter H. Rossi, *Feeding the Poor: Assessing Federal Food Aid* (Washington, DC: The AEI Press, 1998), 98.

[312]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Policy Memorandum 98–9, Revision 8: Nutrition Risk Criteria" (Alexandria, VA: USDA, March 2005).

[313]Institute of Medicine, *Dietary Risk Assessment in the WIC Program* (Washington, DC: National Academies Press, 2002), 20, stating "Although *failure to meet Dietary Guidelines* (401) and *inadequate diet* (422) are included among the 18 allowable dietary risk criteria, they are the only two for which definitions and cut-off points have not been set officially. State agencies continue to be accorded discretion within broad federal guidelines to define these two criteria (the indicators and cut-off points to be used) and choose tools to assess them." (italics in the original).

[314]Michele Ver Ploeg and David M. Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Phase I Report* (Washington, DC: National Academies Press, 2001), 19, stating: "In practice, however, it appears that very few income eligible people fail to meet at least one of the nutrition risk criteria."

[315]Like so many other areas of WIC implementation, little systematic evidence of such practices exists. However, this is the most likely explanation for estimated participation levels that otherwise imply that all income-eligible people are at nutritional risk, even as medical evidence indicates otherwise. Compare Peter H. Rossi, *Feeding the Poor: Assessing Federal Food Aid* (Washington, DC: The AEI Press, 1998), 98, with Institute of Medicine, *WIC Nutrition Risk Criteria: A Scientific Assessment* (Washington, DC: National Academies Press, 1996), 7.

eligibility essentially has become solely a matter of income."[316] Similarly, in 2003, Bitler, Currie, and Scholz report that "in practice virtually all categorically-eligible persons who present themselves for screening are certified to be at risk on the basis of an inadequate diet, even if no other risk criteria is identified."[317]

Besides the desire to enroll as many low-income families as possible (at least when funding is sufficient), the main explanation is the breadth of the applicable criteria. In 2003, the NRC estimated the percentage of potential WIC recipients at nutritional risk using the Continuing Survey of Food Intake by Individuals (CSFII) and the National Health and Nutrition Examination Survey (NHANES).[318] The NRC applied only one criterion of nutritional risk (out of more than 80): the Institute of Medicine's (IOM) "failure to meet dietary guidelines" criterion, defined as "consuming fewer than the recommended number of servings from one or more of the five basic food groups (grains, fruits, vegetables, milk products, and meat or beans) based on an individual's estimated energy needs."[319]

On the basis on this one criterion, the NRC found that 97 percent of pregnant women, 100 percent of postpartum women, 98 percent of children, and 97 percent of infants who were income eligible also met nutrition risk criteria.[320] (Because infants are deemed to be at nutritional risk if their mother was at nutritional risk during pregnancy, estimates for the number of infants at nutritional risk followed an older USDA practice of using the percentage of pregnant women at nutritional risk as a lower-bound estimate of the percentage of infants at risk.)

In fact, these criteria are so broad that other studies using earlier CSFII data have found that *less than 1 percent of all women and children* (ages 2–5) consume the recommended number

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[316]Douglas J. Besharov and Peter Germanis, *Rethinking WIC: An Evaluation of the Women, Infants, and Children Program* (Washington, DC: The AEI Press, 2001), 21.

[317]Marianne P. Bitler, Janet Currie, and John Karl Scholz, "WIC Eligibility and Participation," *Journal of Human Resources* 38, no.4 (September 2003): 1141, http://web.ebscohost.com/ehost/pdf?vid=3&hid=4&sid=dd4e1a93-e6bb-41bb-bd9d-a46075f5adf8%40sessionmgr103 (accessed October 13, 2008); see also Marianne P. Bitler, Craig Gundersen, and Grace S. Marquis, "Are WIC Nonrecipients at Less Nutritional Risk Than Recipients? An Application of the Food Security Measure," *Review of Agricultural Economics* 27 (September 2005): 433–438.

[318]See Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 83–112.

[319]Institute of Medicine, *Dietary Risk Assessment in the WIC Program* (Washington, DC: National Academies Press, 2002).

[320]See Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 83–112. The figure for children includes only children from ages 2–5. Estimates for children from ages 1–2 were not included in the report due to a lack of data, but were assumed to be similar to children 2–5.

of servings from every food group, *regardless of income*.[321] That is, almost all Americans are at nutritional risk because of inadequate diets.

One reason for these outsized findings is how the data are collected: both the CSFII and NHANES surveys, like the practices of most WIC agencies,[322] measure an individual's diet by a 24-hour dietary recall (or, at most, two non-consecutive 24-hour recalls). The NRC concludes that this way of determining nutritional risk, given the large amount of variability in a person's diet from day to day, will almost always lead to an applicant being determined at nutritional risk (regardless of overall dietary practices), and leads the NRC to state that "it is arguably impossible for WIC field staff to distinguish the persons who do not meet the dietary risk criterion from those who do."[323]

These apparently immutable practices lead the NRC to recommend that *all applicants be presumed to be at nutritional risk* and that the criteria should probably be done away with altogether. It explained, "Given very high estimates of the prevalence of nutritional risk among income-eligible populations, gross inaccuracies in screening procedures for dietary risk, and cost-benefit calculations of administering the screen, the panel concludes that a nutritional risk screen is not useful for determining eligibility."[324] An earlier Institute of Medicine (IOM) report also

[321]Susan M. Krebs-Smith et al., "Characterizing food intake patterns of American adults," *American Journal of Clinical Nutrition* 65 (1997): 1264S–1268S; Kathryn A. Muñoz et al., "Food intake of U.S. children and adolescents compared with recommendations," *Pediatrics* 100, no. 3 (1997): 323–329.

[322]Susan Bartlett et al., *WIC Participant and Program Characteristics 1998* (Washington, DC: USDA, May 2000), 70, exhibit 5.3, http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/PC98rpt.pdf, (accessed January 27, 2007), finding that, in 1998, nearly 82 percent of states reported using twenty-four hour recall to assess dietary intake. In addition, nearly 80 percent of states reported using a "Food frequency/food item checklist," and about 8 percent of states reported using computer-assisted analysis. (As the authors note in this exhibit, "Responses are not mutually exclusive, so percentages do not sum to 100 percent. Percentages are based on the number (88) of reporting State WIC agencies.")

[323]Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 105. Basically, a 24-hour food recall is too small a sample to derive what the average ("usual") dietary intake is for any one particular applicant, and so, given the large day-to-day variance around food intake, the 24-hour food intake would have to be significantly above the cut-off point for the staff member to be statistically confident that the applicant was, *on average*, at or above the cut-off. The panel estimated "the day-to-day standard deviation of number of servings of fruits and grains to be 0.98 and 1.64 servings, respectively. Then [it] computed the mean intake based on one day of data that would result in rejection of the hypothesis that the child's usual intake does not meet the criterion. . . . [Based on its estimates] a WIC field member would need to observe a very high intake on one day before she could be sure that, on average, the child consumes enough of the food."

[324]Michele Ver Ploeg and David Betson, eds., *Estimating Eligibility and Participation for the WIC Program: Final Report* (Washington, DC: National Academies Press, 2003), 110–111.

recommended dropping the nutritional risk requirement.[325]

In 2005, the Food and Nutrition Services seemed to throw in the towel. It issued WIC Policy Memorandum 98-9, Revision 8 which reduced the number of dietary risk criteria from nineteen to five and provided definitions for each of the five criteria. Most importantly, in accordance with the recommendation from the IOM's 2002 report, FNS included "presumed dietary risk" as a part of the criterion "Failure to Meet *Dietary Guidelines for Americans*." This criterion indicates that "women and children two years of age and older who meet the eligibility requirements of income, categorical, and residency status may be presumed to be at nutritional risk."[326] This criterion was adopted in accordance with the findings of the IOM that "nearly all U.S. women and children usually consume fewer than the recommended number of servings specified by the Food Guide Pyramid and, therefore, would be at dietary risk based on the criterion *failure to meet Dietary Guidelines*."[327] Presumed risk may only be invoked if no other nutritional risk criterion has been met.

If this provision is meaningless, then, as the NRC and IOM have recommended, it should be removed from the law. All it does is add a meaningless step in the application process and obscures from the public the fact that WIC eligibility is based solely on low income. On the other hand, consideration should be given to using some determination of risk or need as the basis for targeting *enhanced* WIC services to those low-income families that need more than WIC's standard benefits.

From the available data, it is not possible for this author to estimate the impact of this extremely broad definition of nutritional risk, but it is noteworthy that, as recently as 1997, the USDA estimated that only 80 percent of applicants were at nutritional risk.[328]

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[325]Institute of Medicine, *Dietary Risk Assessment in the WIC Program* (Washington, DC: National Academies Press, 2002), 133, stating: "Presume that all women and children ages 2 to 5 years who meet the eligibility requirements of income, categorical, and residency status also meet the requirement of nutrition risk through the category of dietary risk based on *failure to meet Dietary Guidelines*, where *failure to meet Dietary Guidelines* is defined as consuming fewer than the recommended number of servings from one or more of the five basic food groups (grains, fruits, vegetables, milk products, and meat or beans) based on an individual's estimated energy needs."

[326]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Policy Memorandum 98–9, Revision 8: 401 Failure to Meet Dietary Guideline for Americans" (Alexandria, VA: USDA, March 2005), 1

[327]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Policy Memorandum 98–9, Revision 8: 401 Failure to Meet Dietary Guideline for Americans" (Alexandria, VA: USDA, March 2005), 2.

[328]U.S. Department of Agriculture, Food and Nutrition Service, Office of Analysis and Evaluation, *Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): Eligibility and Coverage Estimates 1997 Update* (Alexandria, VA: USDA, 1999), quoted in Douglas J. Besharov and Peter Germanis, *Rethinking WIC: An Evaluation of the Women, Infants, and Children Program* (Washington, DC: The AEI Press, 2001), 131–132, and stating: "The nutritional risk estimates are based on health survey data and approximate the percentage of the

income-eligible population who also have at least one nutritional risk. It is estimated that infants are most likely to have a nutritional risk (95 percent) and older children are least likely to have one (75 percent)."

Appendix 1

Annotated Bibliography on WIC Eligibility

Besharov, Douglas J. and Peter Germanis. *Rethinking WIC: An Evaluation of the Women, Infants, and Children Program*. Washington, DC: The AEI Press, 2001.

The authors, both researchers at the American Enterprise Institute (AEI), evaluate all aspects of the Women, Infants, and Children (WIC) program, including program benefits, program coverage, and the program's efficacy. Regarding program coverage and eligibility, they conclude that "[b]ecause of the relatively high income cutoff (almost twice the poverty line), loose interpretations of nutritional risk, and the fact that the middle class is having relatively fewer children than in the past compared with lower-income Americans, a surprisingly large proportion of Americans receive WIC benefits" (p. 17). They note, however, that "[m]any valid reasons exist for why more individuals participate in the program than are estimated to be eligible," citing (1) adjunctive eligibility through Medicaid; (2) problems with Census data; and (3) differences "between the family unit and income measures WIC agencies use and those the USDA uses to estimate eligibility" (p. 23).

Bitler, Marianne, and Janet Currie. "Medicaid at Birth, WIC Take-Up, and Children's Outcomes." Discussion paper. Institute for Research on Poverty. University of Wisconsin-Madison, August 2004. http://www.irp.wisc.edu/publications/dps/pdfs/dp128604.pdf.

The authors, researchers at RAND, UCLA and the National Bureau of Economic Research, examine the effect of Medicaid policies on WIC participation rates using data from the 1996 and 2001 panels of the Survey of Income and Program Participation (SIPP). Their initial hypothesis is that "two types of changes to the Medicaid program may have increased WIC participation among four year old children. . . . First, higher Medicaid cutoffs for infants are likely to affect childhood WIC participation because most children who use WIC began using the program as infants, and Medicaid confers automatic eligibility for WIC" (p. 2). The second Medicaid eligibility change "occurred through the State Child Health Insurance Program (SCHIP) . . . [and] states that used SCHIP to expand Medicaid also expanded eligibility for WIC among children" (p. 3). The authors find that "the income cutoffs for Medicaid that were in effect when a child was born affect the probability of WIC participation 4 years later. . . . By contrast, increases in the generosity of Medicaid towards older children increased WIC eligibility without having much impact on participation" (p. 22). They conclude that this result "also indicates that increases in children's WIC participation have not been driven by increased participation by children from higher income families made eligible as a result of SCHIP" (p. 22).

———, and John Karl Scholz. "WIC Eligibility and Participation." *Journal of Human Resources* 38 (2003).

The authors, researchers at RAND, UCLA, UW-Madison and the National Bureau of Economic Research, examine WIC eligibility and participation by comparing data from the Current Population Survey (CPS) and the Survey of Income and Program Participation (SIPP) to administrative data from the Food and Nutrition Service (FNS). They find that participation is significantly undercounted in both the CPS and the SIPP, but the demographic characteristics of those in both surveys are similar to the characteristics of WIC recipients found in national administrative reports. They estimate 1997 eligibility rates based on both annual and monthly income. Compared to using annual income to determine eligibility, monthly income "increases total eligibility counts by 9 to 12 percent" (p. 26); adding adjunctive eligibility increases the total number of eligible households by an additional 8 to 9 percent. They find that "[t]aken together, the *combination* of monthly income, certification periods, and adjunctive eligibility increases counts of WIC eligibility by 44 to 51 percent relative to the 'CPS-like' baseline measure" (p. 27). The authors note that "[d]emographic characteristics are similar but the incomes that WIC participants report in the CPS and the SIPP are much higher than those recorded in administrative records. . . . This finding suggests either that WIC recipients underreport income to program administrators (though not to survey takers) or that families turn to WIC when their incomes are at a temporary low, and then stay on the program for some time after incomes rebound" (p. 37). States that require proof of income and stricter program rules have less participation.

Black, Maureen M. et al. "Special Supplemental Nutrition Program for Women, Infants, and Children Participation and Infants' Growth and Health: A Multisite Surveillance Study." *Pediatrics* 114, no. 1 (2004). http://pediatrics.aappublications.org/cgi/reprint/114/1/169?ck=nck.

The authors, researchers at various medical and public health schools, examine "associations between WIC participation and indicators of underweight, overweight, length, caregiver-perceived health, and household food security among infants <12 months of age, at 6 urban hospitals and clinics" (p. 169). The study was conducted at multiple sites "with cross-sectional surveys administered at urban medical centers in 5 states and Washington, DC, from August 1998 though December 2001," and "[a] total of 5923 WIC-eligible caregivers of infants <12 months of age were interviewed at hospital clinics and emergency departments" (p. 169). It reports that "[n]inety-one percent of WIC-eligible families were receiving WIC assistance. Of the eligible families not receiving WIC assistance, 64% reported access problems and 36% denied a need for WIC. The weight and length of WIC assistance recipients, adjusted for age and gender, were consistent with national normative values. With control for potential confounding family variables (site, housing subsidy, employment status, education, and receipt of food stamps or Temporary Assistance for Needy Families) and infant variables (race/ethnicity, birth

weight, months breastfed, and age), infants who did not receive WIC assistance because of access problems were more likely to be underweight . . . , short . . . , and perceived as having fair or poor health . . . compared with WIC assistance recipients" (p. 169).

Giannarelli, Linda, and Joyce Morton. "Estimating the Number of Infants and Children Who Are Income Eligible for WIC." Presentation. Panel to Evaluate the USDA's Methodology for Estimating Eligibility and Participation for the WIC program, March, 2000.

The authors of this presentation, both researchers at the Urban Institute, present various methods for estimating WIC eligibility based on different definitions of income, including adjunctive eligibility, and using monthly instead of annual income. They find, for example, that without considering the impact of adjunctive eligibility, using a family household measure compared to a subfamily measure would have increased the estimated number of eligible infants and children by about 13 percent and 7 percent, respectively. Further, they find that relative to an estimate based solely on monthly income (without accounting for certification periods), accounting for adjunctive eligibility (with TRIM adjustments) increased eligible infants by about 25 percent (from about 2 million to about 2.5 million), and increased eligible children by about 18 percent (from about 7.8 million to about 9.2 million).

Giannarelli, Linda, and Sandi Nelson. *How Many Women, Infants, and Children are Eligible for WIC? Estimates from the CPS and SIPP*. Washington, DC: The Urban Institute, March 2006.

The authors of this report, both of the Urban Institute, contracted with the Food and Nutrition Service (FNS) to apply the NAS-recommended and revised USDA methodology to CPS and SIPP data. The report summarizes methods for estimating WIC eligibility (as well as the limitations and complexities of these methods), and eligibility and coverage estimates for all categories of participants. Using the revised methodology, the report concludes that, in 2004, "[a]pproximately 63 percent of all infants, 48 percent of their mothers, 52 percent of young children, and 42 percent of pregnant women were eligible for WIC." (p. 53). The report also notes that the "new CPS-based WIC eligibility estimates developed under this project suggest that approximately 55 percent of all the individuals eligible for WIC in a particular month of 2004 received those benefits. The percentage of eligibles enrolled in WIC was highest for infants (77 percent), lowest for young children (45 percent), and in between those figures for women (65 percent for pregnant women and 66 percent for postpartum women)" (p. 55).

Gordon, Anne, Rebecca Kliman, Jim Ohls, Jacqueline Anderson, and Kristin LaBounty. "Estimating the Number of People Eligible for WIC and the Full-Funding Participation Rate: A Review of the Issues." Washington D.C.: Mathematica Policy Research, Inc. 1999.

The authors, researchers at Mathematica Policy Research, Inc., attempt to "identify the key issues, in terms of both data choices and analytical methods, involved in estimating the number of WIC eligibles and the proportion of eligibles likely to participate in WIC" (p. 3). In particular, they review literature on monthly versus annual measures of WIC eligibility, adjusting for the length of the certification period, the number of participants with annual incomes above the WIC threshold, income eligibility over long periods, and adjunctive eligibility through Medicaid. We have all the pertinent references from their review. However, numerous datasets are referred to that may be helpful as we proceed (such as the National Survey of WIC Participants and Their Local Agencies).

Gordon, Anne, Kimball Lewis, and Larry Radbill. *Income Variability Among Families with Pregnant Women, Infants, or Young Children*. Princeton, NJ: Mathematica Policy Research, Inc., January 1997.

The authors, researchers at Mathematica Policy Research, Inc., "assess the CPS estimates [of categorically eligible and income eligible infants and children] in relation to alternative estimates from the Survey of Income and Program Participation (SIPP)" (p. xiii). Data cover the period of October 1989 to August 1993. In particular, they focus on monthly versus annual income measures to assess eligibility and changes in income (and program participation) around the time of a birth. They find that "[e]stimates of income eligibility in the SIPP based on annual income were not significantly different from estimates based on monthly income. . . . [and] [e]stimated participation rates for infants were close to 100 percent regardless of whether annual or monthly measures of income eligibility were used" (p. xiv). Further, they find that "[a]bout 25 to 30 percent more infants and children are income eligible for WIC in *some* month of the calendar year than are income eligible on average" (p. xiv). They also find that "[h]olding family size constant, the proportion of women income eligible for WIC increases gradually during pregnancy, takes an abrupt jump at birth, and then declines gradually during the year after birth" (p. xv). Presumably this is because pregnant women leave work at about the same time prior to the birth, but the decision to return to work is relatively more variable. Finally, they found that "[t]he characteristics of women income eligible before a birth are different than those of women income eligible after birth. . . . In particular, women who were income eligible after the birth, on average, were more educated, were more likely to live with the father, were more likely to be white, and had fewer children than those who were income eligible during the pregnancy" (p. xv).

Jacknowitz, Alison. "An Investigation of the Factors Influencing Breastfeeding Patterns." Working paper. Pardee RAND Graduate School, 2004. http://www.rand.org/pubs/rgs_dissertations/2005/RAND_RGSD182.pdf.

The author, a doctoral student at the Pardee RAND Graduate School, examines (1) "whether increases in breastfeeding rates since 1991 can be attributed to demographic changes" (p. xi); (2) "whether the work requirements adopted as part of welfare reform

have affected the prevalence of breastfeeding" (p. xii); and (3) "seeks to understand the role of workplace characteristics in the breastfeeding practices of working women" (p. xiii). To answer the first question, the study "decomposes breastfeeding trends using 1991 through 2002 data from the Ross Laboratories Mothers Survey (RLMS) and birth certificate data" (p. xi), and suggests that "changes in the composition of births . . . explain approximately 20 percent of the upward trend in initiation and duration breastfeeding rates during the 1990s" (p. xii). (It notes that "[t]he changes in birth composition by maternal age and education are the most important of these factors, explaining 9.8 and 11.5 percent of the increase in breastfeeding initiation rates, respectively" [p. xii].) On work requirements it notes that "[t]he analyses of data from the [(RLMS)] . . . suggest that if welfare reform had not been adopted, national breastfeeding rates six months after birth would be 5.5 percent higher" (p. xii). Finally, using the National Longitudinal Survey of Youth 1979 (NLSY79), it estimates the "effects of availability of employer-sponsored child care, availability of a flexible schedule, hours worked at home, and working a rotating schedule on breastfeeding outcomes" (p. xiii), and finds that "[t]he availability of employer-sponsored child care increases the likelihood of breastfeeding six months after birth by 59 percent. . . . [and] working an additional eight hours at home per week increases the probability of breastfeeding by approximately 9 and 21 percent at birth and six months after birth, respectively" (p. xiii).

Krause, Mara. "States Have Expanded Eligibility through Medicaid and the State Children's Health Insurance Program." Washington, D.C.: NGA Center for Best Practices, Health Policy Studies Division, 1999. http://www.nga.org/Files/pdf/19990210MCHUPDATE.PDF.

The author, a researcher for the NGA Center for Best Practices, presents 1997-1998 data on Medicaid and SCHIP income eligibility of pregnant women, infants, and children. For 1997-1998, she finds that several states' income eligibility cutoffs for pregnant women, infants, and children is higher than WIC eligibility (185 percent of poverty). (This was more likely to be the case for infants and children than for pregnant women.) Because those in Medicaid are adjunctively eligible for WIC, this effectively increased WIC eligibility.

Lewis, Kimball, and Marilyn Ellwood. *Medicaid Policies and Eligibility for WIC*. Cambridge, MA: Mathematica Policy Research, 1998. http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/medwic.pdf.

The authors, researchers at Mathematica Policy Research, use Medicaid administrative data to evaluate the impact of Medicaid policies on adjunctive eligibility for WIC. They conclude that "a majority of states report more infants enrolled in the Medicaid program than were estimated to be eligible for WIC based on CPS data" (p. xi). Further, they suggest that the Food and Nutrition Service "take Medicaid adjunct eligibility into account in its estimates of WIC eligibles . . . as more states begin to use income thresholds of 250

to 300 percent of poverty for Medicaid" (p. xi). They discuss several Medicaid eligibility rules and practices that allow persons with annual incomes above 185 percent of poverty to enroll (and thus make them adjunctively eligible for WIC): "[a] flexible definition of the family unit for eligibility; relatively long eligibility certification periods for pregnant or postpartum women and infants [6 to 12 months]; eligibility [recertification] practices . . . and guaranteed enrollment periods [also 6 to 12 months]" (p. 6). The authors make no specific estimates of the impact of these rules.

National Research Council. "Estimating Eligibility Based on Meeting Nutritional Risk Criteria." In *Estimating Eligibility and Participation for the WIC Program*. Washington, D.C.: National Academy Press, 2003.

The panel uses two surveys, the Continuing Survey of Food Intake by Individuals (CSFII) and the National Health and Nutrition Examination Survey (NHANES), to examine and critique current methods used to adjust the number of categorically and income-eligible persons to account for those who do not meet at least one criterion for nutritional risk. The panel concludes that "[g]iven very high estimates of the prevalence of nutritional risk among income-eligible populations, gross inaccuracies in screening procedures for dietary risk, and cost-benefit calculations of administering the screen, . . . [the] nutritional risk screen is not useful for determining eligibility" (pp. 110-111).

National Research Council. "Estimation of the Number of Income-Eligible Pregnant and Postpartum Women." In *Estimating Eligibility and Participation for the WIC Program*. Washington, D.C.: National Academy Press, 2003.

The panel examines the current methods of inferring the numbers of income eligible pregnant women from the number of income-eligible infants in the Survey of Income and Program Participation (SIPP). Using monthly instead of annual income, "the ratio of the number of income-eligible and adjunctively eligible pregnant women to the number of income-eligible and adjunctively eligible infants was . . . 90.7 percent [in 1997] and . . . 92.7 percent [in 1998] . . . indicat[ing] that between 7 and 9 percent of infants had mothers who were not eligible for the full 9 months of pregnancy" (pp. 71-72). The panel notes the current participation estimation method does not consider the lag between the time when a woman discovers she is pregnant and when she applies for WIC. (However, the panel does not make any estimates of the effects of this lag.) The panel concludes that "income variability over the course of a year can be significant. . . . They can demonstrate the importance of measuring income on a monthly basis" (p. 72).

National Research Council. "Income and Adjunctive Eligibility of Infants and Children." In *Estimating Eligibility and Participation for the WIC Program*. Washington, D.C.: National Academy Press, 2003.

The panel uses data from the Survey of Income and Program Participation (SIPP) and

Medicaid administrative data to develop an alternative method for estimating income eligibility for infants and children. For 1998, the panel finds that the combined impact of using monthly instead of annual income and accounting for adjunctive eligibility increases the proportion of eligible infants from 39.2 percent to 46.7 percent, and increases the proportion of eligible children from 40.4 percent to 46 percent. The panel also attempts to estimate the effect of variable certification periods on eligibility. In one table, the panel shows "the months in which an infant or child was certified as eligible but not eligible that month based on that month's income, nor annual income or adjunctive eligibility," finding that "[o]f the months that were certified to infants, 18 percent were to infants whose monthly household income exceeded eligibility limits in one or more of the months in which they were certified, whose annual income exceeded 185 percent of poverty, and who did not report participation in programs that confer adjunctive eligibility. . . . And 14 percent of all the months certified to children were to children with similar eligibility status" (p. 66). The panel concludes that "[t]he current method used to estimate income eligibility for infants and children significantly understates the numbers eligible because income variation over time and adjunctive eligibility are not adequately measured" (p. 67).

Randall, Bonnie, Susan Bartlett, and Sheela Kennedy. *Study of WIC Participant and Program Characteristics 1996*. Cambridge, MA: Abt Associates, Inc., August 1998. http://www.fns.usda.gov/oane/menu/Published/WIC/FILES/pc96fr.pdf.

U.S. Department of Agriculture. Food and Nutrition Service. Office of Analysis, Nutrition and Evaluation. *WIC Participant and Program Characteristics 2004*. Susan Bartlett, Ellen Bobronnikov, and Nicole Pacheco, et al. Alexandria, VA: USDA, March 2006. http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/pc2004.pdf.

The authors, researchers at Abt Associates, report 2004 WIC participant and program characteristics collected from state WIC agencies. (It states that "[i]n this report, the term 'participants' is defined as persons on WIC master lists or persons listed in WIC operating files who are certified to receive WIC benefits in April 2004. This is . . . different from WIC's regulatory definition of participants, which is based on an individual physically picking up WIC benefits at the WIC office" [p. iii]). In 2004, state WIC agencies reported 8,586,484 participants (including women, infants, and children), which "represented an increase of 7 percent over WIC enrollment reported in 2002" (p. 4). Hispanics made up the largest percentage of WIC participants (39.2 percent), followed by whites (34.6 percent), and blacks (20.0 percent)," noting that "the percentage of Hispanic WIC enrollees has risen steadily [from 23 percent in 1992], while percentages of black [nearly 28 percent in 1992] and white (non-Hispanic) [about 44 percent in 1992] enrollees has decreased" (p. vi). Also of note, it states "caution should be exercised in comparing specific nutritional risks from PC2004 to years prior to 2000. The Food and Nutrition Service, USDA implemented new nationally uniform standards beginning in 1999 which were first reflected in PC2000. Prior to 1999, States individually elected nutrition risk criteria they judged relevant to WIC Program eligibility" (p. viii).

———. "The WIC Program: Background, Trends, and Issues." Washington, DC: USDA, September, 2002. http://www.ers.usda.gov/publications/fanrr27/fanrr27.pdf.

The authors of this report, all researchers in the Food and Rural Economics Division of the U.S. Department of Agriculture, present background information on the WIC program, and in particular, participation trends, issues raised regarding eligibility standards, and estimating eligibility. It reports that between 1988 and 1997 alone, participation about doubled. It notes that "[t]he dramatic growth in WIC's funding during the 1990s has allowed the program to serve more people with lower priority and raised questions about whether the nutrition risk criteria are too lenient" (p. 26). Further, it discusses problems associated with the nutrition risk criteria, citing in particular the 1996 NAS Institute of Medicine (IOM) report that "concluded that while a majority of the nutrition risk criteria used by the WIC program were supported by a body of scientific evidence, some of the nutrition risk criteria used by States consisted of loosely defined conditions with generous cutoff points" (p. 25). Finally, it surveys controversies surrounding the estimation of WIC eligibility, noting that "In 1997 (the most recent available data), overall coverage was estimated at 87 percent, with rates of 122 percent for infants, 75 percent for children, 69 percent for pregnant women, and 122 percent for postpartum women" (p. 27). It notes three concerns about WIC eligibility esimtates: (1) "the current estimation technique does not take into account that some States raised their Medicaid cutoff level for infants above the cutoff for WIC, thus raising eligibility since by law Medicaid participants are income-eligible for WIC" (p. 28), (2) "some States have carried over unused balances in recent years, suggesting that WIC is fully funded and possibly serving ineligible persons" (p. 28), and (3) the full-funding participation rate is likely much higher than the assumed 80 percent rate based on "observed participation rates among young children in the Aid to Families with Dependent Children Program (AFDC) and the Food Stamp Program during the late 1980s" (p. 28).

———. *WIC Program Coverage: How Many Eligible Individuals Participated in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): 1994 to 2003?* Alexandria, VA: USDA, February 2006. http://www.fns.usda.gov/oane/MENU/Published/WIC/FILES/WICEligibles.pdf.

This report discusses WIC coverage rates between 1994 and 2003, and in particular how WIC coverage rate estimation techniques have improved several after review by the Committee on National Statistics (CNS) of the National Research Council (NRC). It states that "[i]n the past, the number of infants and postpartum women enrolled in the program exceeded the number estimated to be eligible by 20 to 30%" (p. 1). It notes that the old methodology for estimating eligibles (1) "only partially accounted for . . . [adjunctive eligibility] . . . based on their enrollment in the Medicaid, Food Stamp, or Temporary Assistance to Needy Family (TANF) programs," (2) [it] did not account for changes in monthly income," and (3) it " also did not make any adjustment to the distribution of infants and children in the data from the CPS, so it overestimated the number of children

while underestimating the number of infants that were eligible" (p. 1). The CNS "developed two strategies to estimate the number of individuals eligible for WIC" (p. 2), one using the CPS and the other using SIPP. When "[c]omparing the CPS calculation to the SIPP calculation for the most recent year the SIPP is available (2002) shows that the SIPP calculation produces slightly higher eligible estimates for infants and children, but slightly lower numbers of pregnant women (see Figure 1)" (p. 3). Regarding coverage rates, it states that "[i]n 1994, 47% of those eligible for WIC actually participated. This proportion increased throughout the late 1990's, reaching a high of nearly 61% in 1999. This corresponds with both a decrease in the number of persons eligible and an increase in participation during this time when increased funding was available to the program" (p. 3).

The authors, researchers at Abt Associates, survey 1996 data on WIC participant and program characteristics. The data were collected from a survey of State WIC agencies. The report shows that, in 1996, 7,747,441 women, infants, and children were enrolled in WIC, which was a 12 percent increase from 1994. It notes that "[w]hile over 7.7 million participants were enrolled in WIC during April 1996, fewer participants—approximately 7.2 million—actually picked up or cashed their vouchers. Thus, monthly participation figures are about seven percent less than monthly enrollment figures" (p. v), which was also observed in earlier studies of WIC participation. More than half (51.4 percent) of WIC participants were children, and about a quarter each were infants and women. Of women, it notes that "[w]omen were further divided into pregnant (11.3 percent of all participants), breastfeeding (4.3 percent of all participants), and postpartum (7.3 percent of all participants)" (p. v). Finally, it notes that In 1996, first-trimester enrollment in WIC appears to have increased from 39 percent in 1994 to 46 percent in 1996. Second- and third-trimester enrollment is virtually the same for 1994 and 1996 " (p. v).

Yelowitz, Aaron S. "Income Variability and WIC Eligibility: Evidence from the SIPP." Working paper. National Bureau of Economic Research, 2002.

The author, a professor at University of Kentucky and research associate at the National Bureau of Economic Research, uses monthly data from the Survey of Income and Program Participation (SIPP) to examine income volatility surrounding the birth of a child. He finds that the monthly income of mothers as a group decreases in the months leading up to birth and then increases slowly after the pregnancy, which, he admits, will not capture the potential for "substantially more variation by individuals" and "a great deal of income volatility" (pp. 12-13). For total family monthly income, the author shows the earnings distribution over several months, before and after the birth. He concludes that "[a]s far as the group distributions, the declines in total income are smaller approaching pregnancy than the declines in woman's earnings. . . . Moreover, total income rebounds fairly quickly (and sometimes impressively) for some demographic groups. . . . At the same time, the declines appear to [be] spread over more households—almost all households experience at least one month of decline in total family income during the pregnancy/postpartum" (p.

17). The author also considers WIC eligibility under different recertification regimes. He finds that the proportion eligible under monthly recertification would be significantly lower than the recertification regime that most closely approximates the WIC eligibility process. (Once a woman is certified as eligible, she is eligible until the birth. If she is found to be eligible at that time, she is eligible until six months after the pregnancy has ended, regardless of monthly income eligibility.) Finally, he concludes that adjunctive eligibility appears not to contribute very much to the eligibility of pregnant mothers.

Appendix 2

Notes to Table 12

Estimating WIC Eligibility

The Impact of Individual Factors and Estimated Cumulative Impacts

Column 1: For *total population of infants*, we use the CPS unadjusted estimate.

Column 2: For *total population of infants under 185 percent of poverty*, we use the CPS unadjusted estimate as calculated by the UMD/AEI Poverty Tabulator.

Columns 3–4: For *monthly income plus certification periods*, we estimate an independent and cumulative effect of **50 percent**. We derive this estimate from the Bitler et al. and Giannarelli and Nelson estimates (54 percent and 49 percent, respectively) which use the 1998 panel of the SIPP (the survey that best models monthly income and certification periods).

Columns 5–6: For *adjunctive eligibility*, we estimate an independent effect of **25–35 percent** and a cumulative effect of **10–15 percent**. Adjunctive eligibility estimates differ widely between the surveys. Using the 1998 SIPP, Giannarelli and Nelson estimated a 22 percent independent effect, the NRC estimated a 7 percent independent effect, and Bitler et al. estimated a 7 percent cumulative effect after taking monthly income and certification periods into consideration. Using the 1998 CPS/TRIM, Giannarelli and Morton estimated a 25 percent cumulative effect after taking monthly income and certification periods into consideration. The USDA estimated a 15 percent independent effect in 1998 and a 23 percent independent effect in 2003. In addition, the Bush Administration estimated that capping WIC adjunctive eligibility at 250 percent of poverty would only remove 5,000 recipients (not just infants) after taking into account monthly income and certification periods. Patton Boggs estimated capping WIC adjunctive eligibility at 250 percent would remove one million recipients as an independent effect, and the Moran Company estimated that capping adjunctive eligibility at 185 percent of poverty would reduce the eligible WIC population by 20 percent.[329]

Our independent effect estimate places more weight on the TRIM estimates (USDA) then the SIPP estimates (Giannarelli and Nelson and Bitler et al.) due to the adjustment for miscounts of Medicaid receipt and is shifted slightly upward in the 2006 estimate to account for the increases in state Medicaid eligibility. Our cumulative effect estimate is a middle estimate of Bitler et al.,

[329]The Moran Company, "Assessing the Budgetary Implications of WIC Program Amendments"(draft, Washington, DC: The Moran Company, October 2006).

Giannarelli and Nelson, the USDA, and Giannarelli and Morton, tending to be lower based on the SIPP being able to more accurately estimate monthly income and certification periods, thereby reducing the cumulative impact of adjunctive eligibility.

Columns 7–8: For *subfamily income*, we estimate an independent effect of **15–20 percent** and a cumulative effect of **5–10 percent**. Giannarelli and Morton find a 13 percent independent effect in 1998. In other means-tested programs, Bavier found that the independent effect of subfamilies can be as high as 20 percent. We use the low and high estimates as our range. Using 2004 SIPP data provided by Richard Bavier, the authors estimate a 7 percent cumulative effect taking into account monthly income. In addition, Giannarelli and Morton's final eligibility estimates are higher than other studies that do not take into account subfamily income, which is an indication that the effect of subfamily income is not completely subsumed by monthly income, certification periods, and adjunctive eligibility.

Columns 9–10: For *eligible infants in territories*, we estimate a cumulative effect of **4 percent** which is the same estimate as the USDA.

Columns 11–12: For *nutritional risk*, we estimate a cumulative effect of **0 percent**. Bitler et al., the NRC, and Besharov and Germanis all found that virtually all WIC applicants are considered to be at nutritional risk.

Appendix 3

Adjunctive Eligibility Through TANF Nonassistance

Through its effect on food stamp eligibility, the Temporary Assistance for Needy Families (TANF) program is another way that eligibility for WIC can exceed 185 percent of poverty. As mentioned above, receiving TANF "assistance" directly triggers WIC adjunctive eligibility. But almost everyone who might receive TANF "assistance" has an income below poverty, let alone below 185 percent of poverty. (At this writing, this basis of eligibility is relatively unknown and rarely used. However, this could change quickly, and we therefore discuss the matter here.)

The TANF program, however, also provides what it calls "nonassistance" assistance. This oddly named category of benefits was created to allow states to help low-income families without starting the clock on TANF's lifetime, five-year limit on benefits.[330] (TANF nonassistance can go to families with incomes in excess of 185 percent of poverty or with assets greater than TANF's general limit.)[331]

TANF nonassistance can include non-recurrent, lump sum benefits, child care, transportation and work subsidies, state earned income tax credits, and counseling. But it can also include such minimal elements as pamphlets describing benefit programs. And states seem to be taking advantage of this flexibility.

The Congress recognized that such minimal nonassistance assistance under TANF is an insufficient basis for adjunctive eligibility under WIC, and by law limited TANF-related adjunctive eligibility to those receiving TANF "assistance."[332]

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[330]U.S. Department of Health and Human Services, Administration for Children and Families, Office of Family Assistance, "Summary Final Rule: Temporary Assistance for Needy Families (TANF) Program," http://www.acf.hhs.gov/programs/ofa/law-reg/finalrule/exsumcl.htm (accessed June 30, 2008).

[331]Each state sets its own TANF asset limit. As of 2006, state TANF asset limits ranged from a low of $1,000 (Delaware, Georgia, Oklahoma, Pennsylvania, Rhode Island, Texas, Vermont, and Washington) to a high of $10,000 (Oregon). Two states (Ohio and Virginia) did not have an asset limit. Gretchen Rowe and Mary Murphy, *Welfare Rules Databook: State TANF Policies as of July 2006* (Washington, DC: Urban Institute, May 2008), http://www.urban.org/publications/411686.html (accessed August 11, 2008).

[332]*Child Nutrition Act* as amended through Public Law 110-246, 110th Cong., 2nd Sess. (June 18, 2008), Sec. 2(A), http://agriculture.senate.gov/Legislation/Compilations/FNS/CNA66.pdf (accessed August 8, 2008), stating: "Any individual at nutritional risk shall be eligible for the program under this section only if such individual. . . . is a member of a family that receives assistance under the State program funded established under part A of title IV of the Social Security Act." See also U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7(d)(2)(vi), (2008): 356,

There is, however, a back door to WIC eligibility based on TANF nonassistance: the Food Stamp Program. Unlike the WIC rule, there is no food stamp rule that prohibits TANF nonassistance from triggering food stamp eligibility, and apparently it often does, regardless of the person's income or assets.[333] In 2007, twenty-eight states and the District of Columbia conferred food stamp categorical eligibility through the receipt of TANF nonassistance.[334] The Congressional Budget Office estimated that, in 2008, TANF-triggered nonassistance made about 280,000 additional people eligible for food stamps.[335] (The main effect of conferring categorical eligibility is the removal of the Food Stamp program's asset test.)[336]

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http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed June 30, 2008), stating: "The State agency shall accept as income-eligible for the Program any applicant who documents that he/she is. . . . certified as fully eligible, or presumptively eligible pending completion of the eligibility determination process, to receive Temporary Assistance for Needy Families (TANF); or a member of a family that is certified eligible to receive assistance under TANF."

[333]TANF nonassistance recipients can be categorically eligible for food stamps, depending on the percent of the nonassistance that is provided using state funds and on state policy. If more than 50 percent of a recipient's nonassistance is funded using federal TANF or state maintenance-of-effort money, then the recipient is categorically eligible to receive food stamps. If less than 50 percent of a recipient's nonassistance is funded using federal TANF or state maintenance-of-effort money, the state has the option to confer or not confer food stamp categorical eligibility. [U.S. Department of Agriculture, Food and Nutrition Service, "Food Stamp and Food Distribution Program," *Code of Federal Regulations*, title 7, sec. 273.2(j)(2)(ii)(B), http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=82726813eef68f56003f323ae5ccd276&rgn=div5&view=text&node=7:4.1.1.3.21&idno=7 (accessed August 8, 2008).]

[334]According to the GAO, the remaining twenty-two states did not have TANF non-cash services that automatically conferred food stamp categorical eligibility and opted not to confer food stamp categorical eligibility for those recipients receiving TANF non-cash services funded with less than 50 percent of federal TANF or state MOE money. See U.S. Government Accountability Office, *FNS Could Improve Guidance and Monitoring to Help Ensure Appropriate Use of Noncash Categorical Eligibility* (Washington, DC: GAO, March 2007), 3, http://www.gao.gov/new.items/d07465.pdf (accessed June 23, 2008).

[335]U.S. Government Accountability Office, *FNS Could Improve Guidance and Monitoring to Help Ensure Appropriate Use of Noncash Categorical Eligibility* (Washington, DC: GAO, March 2007), 3, http://www.gao.gov/new.items/d07465.pdf (accessed June 23, 2008).

See U.S. Government Accountability Office, *States' Use of Options and Wavers to Improve Program Administration and Promote Access* (Washington, DC: GAO, February 2002), http://www.gao.gov/new.items/d02409.pdf (accessed June 23, 2008); and U.S. Government Accountability Office, *FNS Could Improve Guidance and Monitoring to Help Ensure Appropriate Use of Noncash Categorical Eligibility* (Washington, DC: GAO, March 2007), http://www.gao.gov/new.items/d07465.pdf (accessed June 23, 2008). According to the CBPP, as of 2008, all states have replaced the food stamp asset test with the states' asset tests for either TANF assistance recipients, TANF non-assistance recipients, or TANF maintenance-of-effort recipients, primarily to exclude the value of recipients' vehicles. (In thirty-three states, the value of all vehicles is now completely excluded for determining food stamp eligibility.) [Center on

According to the GAO, as of 2007, eight states conferred food stamp eligibility by providing TANF nonassistance in the form of a pamphlet detailing TANF or food stamp services produced with TANF funds:

> A few states provide information on services to confer categorical eligibility. Eight of 29 states use brochures or information referral services that have eligibility criteria that could allow for a large segment of their food stamp population to be categorically eligible for food stamps. For example, Massachusetts state officials told us that the state provides an informational brochure that describes services that could benefit food stamps households, such as employment support, subsidized child care, and financial assistance.[337]

The GAO reports that "caseworkers in 2 states told us that they give clients an informational brochure that confers TANF noncash categorical eligibility without explicitly determining whether the clients need the services listed."[338]

Effective in 2001, Department of Agriculture regulations impose a 200 percent of poverty cap on income eligibility for food stamps categorical eligibility established by the receipt of TANF nonassistance under purposes three and four of TANF (to prevent and reduce the incidence of out-of-wedlock pregnancies or to encourage the formation and maintenance of two-parent families).[339] The USDA explained the rationale for this limitation:

> Funds spent to meet the third and fourth purposes of the block grant are not limited to 'needy families.' In general, States have designed their TANF cash assistance programs and support services for families who meet income eligibility criteria. However, some TANF services do not have income eligibility criteria. We believe that it is inappropriate to confer food stamp eligibility without income eligibility criteria. . . . We made this

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Budget and Policy Priorities, *States' Vehicle Asset Policies in the Food Stamp Program*, (Washington, DC: CBPP, July 2008), http://www.cbpp.org/7-30-01fa.htm (accessed August 8, 2008).

[337]U.S. Government Accountability Office, *States' Use of Options and Wavers to Improve Program Administration and Promote Access* (Washington, DC: GAO, February 2002), 22, http://www.gao.gov/new.items/d02409.pdf (accessed June 23, 2008).

[338]U.S. Government Accountability Office, *States' Use of Options and Wavers to Improve Program Administration and Promote Access* (Washington, DC: GAO, February 2002), 28 http://www.gao.gov/new.items/d02409.pdf (accessed June 23, 2008).

[339]U.S. Department of Agriculture, Food and Nutrition Service, "Food Stamp and Food Distribution Program," *Code of Federal Regulations*, title 7, sec. 273.2(j)(2)(I), http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=82726813eef68f56003f323ae5ccd276&rgn=div5&view=text&node=7:4.1.1.3.21&idno=7 (accessed August 8, 2008); see also U.S. Government Accountability Office, *States' Use of Options and Wavers to Improve Program Administration and Promote Access* (Washington, DC: GAO, February 2002), http://www.gao.gov/new.items/d02409.pdf (accessed June 23, 2008).

> decision in order to (1) ensure that only TANF benefits and services with income eligibility criteria confer categorical eligibility, and (2) maximize the usefulness of categorical eligibility based upon an analysis by HHS which determined that for services with income eligibility criteria, such criteria tend to be set at 200 percent of the Federal poverty level or lower.[340]

However, there is still no income eligibility cap for TANF purposes one and two and while twenty-one of the twenty-nine states have implemented their own income eligibility caps for households that are categorically eligible through TANF, eight have not.[341]

The Bush administration's efforts to limit food stamp categorical eligibility through TANF to TANF cash assistance only have been blocked in Congress.[342]

For this study, what is significant is the potential for TANF-related adjunctive eligibility for food stamps to create WIC adjunctive eligibility. Being "[c]ertified as fully eligible to receive food stamps,"[343] in turn, triggers WIC adjunctive eligibility.[344] Ordinarily, being eligible for food stamps would not expand WIC eligibility because eligibility for food stamps is set at essentially 130 percent of poverty.[345] But, as mentioned, people receiving TANF nonassistance can have incomes above 185 percent of poverty or have assets in excess of the food stamps asset test of

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[340]U.S. Department of Agriculture, Food and Nutrition Service, "Food Stamp Program: Noncitizen Eligibility, and Certification Provisions of Pub. L. 104–193, as Amended by Public Laws 104–208, 105–33 and 105–185; Final Rule," *Federal Register* 65, no. 225 (November 21, 2000): 70160, http://www.fns.usda.gov/fsp/rules/Regulations/pdfs/112100.pdf (accessed August 11, 2008).

[341]U.S. Government Accountability Office, *FNS Could Improve Guidance and Monitoring to Help Ensure Appropriate Use of Noncash Categorical Eligibility* (Washington, DC: GAO, March 2007), http://www.gao.gov/new.items/d07465.pdf (accessed June 23, 2008).

[342]The Bush administration has proposed limiting this avenue of eligibility to TANF cash assistance in each of the last four years. See U.S. Department of Agriculture, *Budget Summary and Annual Performance Plan* (Alexandria, VA: USDA, 2005–08).

[343]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.(c)(vi)(A)(2): 356, http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed July 11, 2008).

[344]U.S. Department of Agriculture, Food and Nutrition Service, "WIC Program Regulations," *Code of Federal Regulations*, title 7, sec. 246.7 (2007), http://www.fns.usda.gov/wic/lawsandregulations/WICRegulations-7CFR246.pdf (accessed June 27, 2008).

[345]See generally, U.S. House of Representative, Committee on Ways and Means, *2004 Green Book: Background material and data on the programs within the jurisdiction of the committee on ways and means* (Washington, DC: GPO, 2004), 15-12–15-13, http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=108_green_book&docid=f:wm006_15.pdf (accessed June 27, 2008).

$2,000 (usually a car).

For WIC, in 2007, the GAO reported that the number of households eligible for WIC that would be ineligible for WIC benefits if the categorical eligibility for food stamps was limited to TANF cash assistance was small (only about a reported 7,000 households in the United States with the vast majority being in Wisconsin).[346] Although this avenue of eligibility is merely potential, a number of states are implementing TANF categorical eligibility to take advantage of using TANF asset tests. As a number of states continue to explore this avenue and as pressure to expand services continues to grow, then we might see an expansion in the number of states expanding WIC eligibility through food stamp categorical eligibility.

By the way, according to the GAO, states have already taken advantage of the food stamp back door to expand categorical (that is, adjunctive) eligibility for school meals.

For 2001, the GAO reported that at least five states made households categorically eligible for food stamps for the purpose of making them then categorically eligible for free or reduced school meals. They did so even when the household did not "actually qualify for a food stamp benefit."[347]

[346]Author's calculations from U.S. Government Accountability Office, *FNS Could Improve Guidance and Monitoring to Help Ensure Appropriate Use of Noncash Categorical Eligibility* (Washington, DC: GAO, March 2007), http://www.gao.gov/new.items/d07465.pdf (accessed June 23, 2008).

[347]U.S. Government Accountability Office, *States' Use of Options and Wavers to Improve Program Administration and Promote Access* (Washington, DC: GAO, February 2002), http://www.gao.gov/new.items/d02409.pdf (accessed June 23, 2008).