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WIC: expansion to six years of age

Using a series of studies,^{i, ii, iii, iv} this policy change aimed to raise the maximum age cutoff for WIC receipt from up to the day before the fifth birthday, to up to the day before the sixth birthday. This change in WIC eligibility would enable five-year-old children to receive WIC food benefits, including the sizeable number of children whose birthdays fall during a time that precludes their entering public school until the following year. This extension of WIC to Six would enable children otherwise eligible to receive needed food assistance they cannot access through the school meal programs.

There is variation in the proportions of eligible women, infants and children who receive WIC benefits, ranging from the highest coverage rates (proportion of those eligible who receive benefits) among non-breastfeeding women participants (84.9%) to the lowest overall among children ages 1-4 years in 2013 (49.8%).^v A well-documented erosion of coverage as children age describes this, but because the reasons for this attrition are complex, they were not addressed in this study. However the attrition pattern is relevant to our simulation of coverage under WIC to Six, as will be seen.

Two Scenarios for simulating the new 5-yr-old WIC participants and their families

1. In scenario #1, all 5-yr-old children are considered potentially eligible for WIC, with some of those eligible coming from existing 4-yr-old participants “aging up” into their 5th year, and some coming from 5-yr-old children who have not participated previously but who become eligible under WIC to Six. In this scenario the total population of 5-yr old children can be considered, with appropriate eligibility and coverage rates applying. We believe this scenario is the more equitable of the two, and more likely to emerge under a WIC to Six policy. It is, therefore, our favored scenario, and we describe it first, and devote more space to its explication.
2. In scenario #2, all 5-yr-old WIC participants come only from existing 4-yr-old participants “aging up” into their 5th year. Under this scenario only 4-yr-old children who are already participating in WIC are potentially eligible to participate as 5-yr-olds. We see this scenario as inequitable since it would likely exclude many 5-yr-old children from participating in WIC who met all other eligibility criteria, and need the benefits that WIC provides.

Under both of these scenarios, having a 5-yr-old child participating in WIC would essentially add the value of benefits received for that child to the families purchasing power for approved foods. Within certain constraints on types of foods that could be bought, the additional \$520 per year, on average,

would serve to shift the family's purchasing power "up" the income to poverty ratio scale by a factor equal to the proportion it comprises of the poverty threshold. Using average values, that amount is 2.17%. The relevant upward shift is represented in Figure 2 by the orange lines (not to scale) and numbers.

Estimating the Number of WIC Elected and Likely Participants Among Five-Year Old Children

Scenario #1

The average WIC eligibility rate for children ages 1-4 in 2013 was 55.9%. This was also the eligibility rate for 4-yr-old children that year, and the rate we used for five-year-olds entering or being retained in the program under WIC to Six. The year-over year attrition rates for children ages 1-4 years were calculated using the latest available data, and averaged by year, yielding 21.1%. Adjusting the 2013 coverage rate for 4-yr-old children (32.9%) by this average attrition rate produced an estimated coverage rate of 26% for 5-yr-olds.

With the latest available population estimate of 4,018,518 five-yr-old children (both sexes in 2015) used as the base for estimating the number of eligible 5-yr-olds in the simulation,^{vi} we estimated 2,246,352 five-year-old children eligible for WIC. Applying the adjusted coverage rate of 26% to this estimate of eligible five-year-olds yielded an estimated **584,051 five-year-old children** who would likely be added to the WIC rolls under WIC to Six.

In 2015, the average cost of food per WIC participant was \$43.37 per person per month, or \$520.44 per year. This implies that each additional **mother-5-ys-old-child dyad received on average \$1,040.88 for purchase of approved WIC food that year**. This does not include the value of WIC Farmers' Market coupons, or other special benefits for fresh produce. This average per person food cost also indicates that, in aggregate, the estimated additional 583,058 five-year-old WIC participants would provide support for up to \$303,446,706 in additional approved food purchases with commensurate increase in food expenditures at the local markets, stimulating the economy.

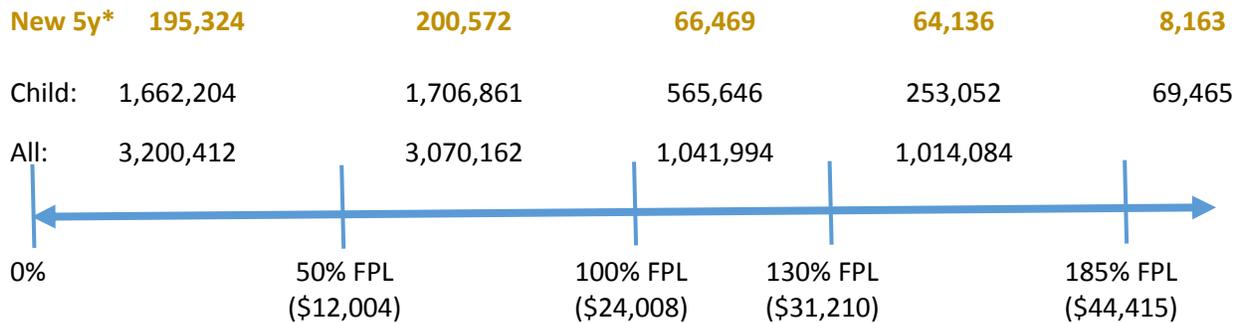
Estimating the Likely Effects of WIC to Six on Food Insecurity Among WIC recipients

In 2014:

- WIC had a total of 9,303,523 participants, including women, infants and children.
- The average family size of WIC participants overall was 4.1 people.
- The average poverty threshold for families of four people with two children was \$24,008.
- Average family income for WIC participants was \$17,372 (72.4% of this poverty threshold).
- Median income for WIC recipient families was \$15,550.
- Among households with children under-5 with incomes below 185% of poverty, and receiving WIC, 41.1% were food insecure.
- 10.4% of all food-insecure households received WIC.^{vii}

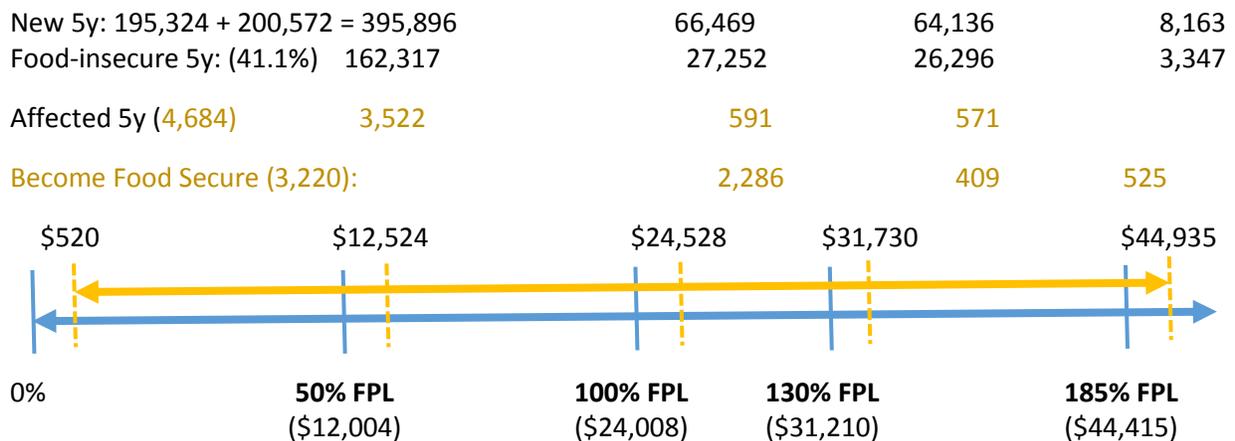
According to 2014 data, WIC participants were distributed among income to poverty ratio groups as shown in Figure 1.^{viii} We estimated the new 5-yr-old participants added under WIC to Six would be distributed as shown in the top row of numbers in Figure 1.

Figure 1: WIC Recipients by Ratio of Family Income to the Federal Poverty Threshold (FPL), 2014.



* 8.2% of the children participant category reported either income as zero, or not reported an income and were excluded from the calculations.

Figure 2: WIC Recipients by Ratio of Family Income to the Federal Poverty Threshold (FPL), 2014, with Additional Five-Year Old Participants .under WIC to Six.



The orange colored numbers in Figure 2 represent 2.17% of the new 5-yr-old children in each income to poverty category (top line of numbers in Figure 2) whose families' food purchasing power is shifted or extended into the next higher income to poverty category. Together these 4,684 children represent a pool of families whose increases in food purchasing power will potentially enable them to become food secure.

Assuming the same food insecurity prevalence values for people in households with children by income to poverty ratio as used for our SNAP simulation, and shifting the numbers of 5-yr-old children shown in orange in Figure 2 into the next higher income to poverty category, we calculated the numbers of food insecure 5-yr-olds for the three sets of higher intervals. Taking the differences between the numbers of food-insecure children implied by each higher and lower food insecurity prevalence pair, yields an estimate of the number of food-insecure 5-yr-old WIC recipients, and their families, that would become food secure under the first year of WIC to Six. That estimate is 3,220 five-year-old children and their

families. Noting that the average family size for WIC children is 4.1 people, this implies that **13,200 people in WIC families with 5-yr-old participants, including 3,220 five-year olds, will have become food secure** in this first year of WIC to Six. This is a reduction of 1.47% in food insecurity among the food-insecure 5-yr-old children added to WIC under the WIC to Six policy, **and their other family members** since the increase in food purchasing power affects the resources available to the entire family. These results are summarized and presented in Table 1 below.

Table 1: Summary of simulated effects of adopting WIC to Six with all five-year-old children potentially elected based on 2014 eligibility and coverage rates and 2015 population estimates

Income-to-Poverty Ratio Category	All Elected 5-year-olds Covered*	Elected 5-year-olds Covered and Food Insecure (41.1%)	Elected 5-year-olds Covered and Food Insecure Moved up in Income category by WIC Benefit (2.17%)	Number remaining Food Insecure After Moving up in Income Category	Number Newly Food Secure	% of Those Elected for Change and Becoming Food Secure
≤100%	395,896	162,317	3,522	1,236	2,286	1.41%
100 - ≤130%	66,469	27,252	591	183	409	1.50%
130 - ≤185%	64,136	26,296	571	46	525	2.00%
>185%	8,163	3,347	NA	NA	NA	NA
Total 5-years-olds	534,664	219,212	4,684	1,465	3,220	1.47%
Total Family Members	2,192,122	898,770	19,206	6,005	13,200	1.47%

* Difference is regarding the unknown or reported as zero income

Scenario #2:

As described above, under this scenario all 5-yr-old elected emerge from current 4-yr-old participants “aging up” into their 5th year of age. In 2014, there were a total of 4,961,804 child participants, 704,576 (14.2%) of whom were 4-yr-olds. Using the same eligibility, attrition, and coverage rates described in scenario #1, we would expect 183,190 (26%) of the 4-yr-old participants to “age up” and continue participating during their 5th year of age.

Without replicating the diagram described above for scenario #1, we assume that these 5-yr-old children conform to the same distribution of family income to poverty ratio groups, and the same rates of food insecurity, as those described in scenario #1, and acknowledge that in both scenarios the data include a small percent of participant families with unknown income. Based on these data, we would expect

124,386 of these 5-yr-olds to live in families with incomes $\leq 100\%$ of poverty, 20,884 in families with incomes $100 - \leq 130\%$ of poverty, 20,151 in families with incomes $130 - \leq 185\%$ of poverty, and 2,565 in families with incomes $> 185\%$ of poverty.

Table 2: Summary of simulated effects of adopting WIC to Six and only including current participating four-year-old children to “age up” into their fifth year, with no additional five-year-old children allowed to apply.

Income to Poverty Category	Aged up 5-year-olds Only	Aged up 5-year-olds Covered and Food Insecure (41.1%)	Aged 5-year-olds Covered and Food Insecure Moved up in Income category by WIC Benefit (2.17%)	Number remaining Food Insecure After Moving up in Income Category	Number Newly Food Secure	% of Those Aged and Becoming Food Secure
$\leq 100\%$	124,386	51,123	1,109	389	720	1.41%
100 - $\leq 130\%$	20,884	8,583	186	57	129	1.50%
130 - $\leq 185\%$	20,151	8,282	179	14	165	2.0%
$> 185\%$	2,565	1,054	23	NA	NA	NA
Total 5-year-olds	167,986	69,042	1,497	460	1,014	1.47%
Total Family Members	688,743	283,072	6,138	1,886	4,157	1.47%

We note that the improvements under both scenarios considered may seem modest compared to the magnitude of food insecurity in the US generally, however the WIC to Six policy change is very closely targeted to a relatively small component of the overall food-insecure population. We also note that these estimates are very conservative since they are based on families that received WIC within 30 days of the survey date, and many other families may have received WIC at some time during the previous year, but not within the previous 30 days. It is also well known that participation in all food assistance programs is under-reported by participants in surveys.

Food insecurity in the US is systemic, as indicated by the continuously high prevalence of food insecurity since its measurement was begun in 1995. Solving the problem of food insecurity in the US will require creative and diligent implementation of a wide variety of policies, each of which can address part of the problem. Moreover, the engrained systemic causes of food insecurity in the US strongly imply that solving food insecurity in the US may take multiple generations. WIC to Six is a great part of that larger range of solutions. And what if we succeed with all the others too?

ⁱ U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support. *National and State-Level Estimates of Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Eligibles and Program Reach, 2013*, by Paul Johnson, Erika Huber, Linda Giannarelli, and David Betson. Project Officer: Grant Lovellette. Alexandria, VA: December 2015.

ⁱⁱ *Ibid*, Summary available separately.

ⁱⁱⁱ Thorn, B., Tadler, C., Huret, N., Trippe, C., Ayo, E., Mendelson, M., Patlan, K. L., Schwartz, G., & Tran, V. (2015). WIC Participant and Program Characteristics 2014. Prepared by Insight Policy Research under Contract No. AG-3198-C-11-0010. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service.

^{iv} Annual Estimates of the Resident Population by Single Year of Age and Sex for the United States: April 1, 2010 to July 1, 2015. U.S. Census Bureau, Population Division. June 2016.

^v U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support. *National and State-Level Estimates of Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Eligibles and Program Reach, 2013*, by Paul Johnson, Erika Huber, Linda Giannarelli, and David Betson. Project Officer: Grant Lovellette. Alexandria, VA: December 2015.

^{vi} US Census Bureau, Population Estimates Data;

<http://www.census.gov/popest/data/national/asrh/2015/index.html> .

^{vii} Coleman-Jensen, Alisha, Matthew P. Rabbitt, Christian A. Gregory, and Anita Singh. *Statistical Supplement to Household Food Security in the United States in 2015*, AP-072, U.S. Department of Agriculture, Economic Research Service, September 2016.

^{viii} Thorn, B., Tadler, C., Huret, N., Trippe, C., Ayo, E., Mendelson, M., Patlan, K. L., Schwartz, G., & Tran, V. (2015). WIC Participant and Program Characteristics 2014. Prepared by Insight Policy Research under Contract No. AG-3198-C-11-0010. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service.