

# **EFFECTS OF IMMIGRATION ON WIC AND NSLP CASELOADS**

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**September 2010**

We are grateful to Randy Capps, Ajay Chaudry, Ei Yin Mon, Joyce Morton, Jeffrey Passel, Caroline Ratcliffe, and Laura Wheaton for their invaluable contributions to this report. We are thankful to Marianne P. Bitler, Dennis Ranalli, and Edward J. Welniak for helping us obtain and understand the data. We are also grateful to David Betson and Alison Jackowitz for their thoughtful and comprehensive review. We would also like to thank the Office of the Assistant Secretary for Planning and Evaluation at the U.S. Department of Health and Human Services for allowing us to use output data from TRIM3 simulations that have not yet been released for public use.

*Disclaimer: This study was conducted by the Urban Institute under Agreement Number: 59-5000-8-0098, Project Number: FANRP 251 with the USDA's Economic Research Service (ERS). The authors take full responsibility for the accuracy of material presented herein and the technical review. The views expressed are those of the authors and should not be attributed to the ERS or USDA or to the Urban Institute, its trustees, or its funders. Information presented here is derived in part from the Transfer Income Model, Version 3 (TRIM3) and associated databases. TRIM3 requires users to input assumptions and/or interpretations about economic behavior and the rules governing federal programs. Therefore, the conclusions presented here are attributable only to the authors of this report.*

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## **ABSTRACT**

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and the National School Lunch Program (NSLP) have no eligibility restrictions based on the legal status of immigrants. This study reveals an increase in the number and share of immigrants and their children in WIC and NSLP between the mid-1990s and 2006; however, their share of participants is generally comparable to their shares of the eligible populations. Findings suggest that immigrants face fewer barriers to access in WIC and NSLP than they do for TANF, SNAP, and other benefits subject to immigration-related eligibility restrictions.

**Key Words:** WIC, NSLP, immigration, legal status, eligibility, participation



## EXECUTIVE SUMMARY

Children of immigrants are the fastest growing population in the United States.<sup>1</sup> In 1990, 13 percent of all U.S. children ages 0 to 18 had at least one immigrant parent; by 2006, that figure had risen to 23 percent. Due to a rise in immigration flows during the 1990s, a growing number of native-born children in the United States have immigrant parents. The number of native-born children of immigrants increased from 9.6 million in 1994 to 14.4 million in 2006. Native-born children accounted for the majority (81 percent) of children with immigrant parents in 2006. In 2006, children that were themselves immigrants represented 4.4 percent of all U.S. children, similar to their share in 1994, 4.1 percent. Less than half (48 percent) of foreign-born children were unauthorized immigrants—living in the country without the legal documentation to do so—up from 37 percent in 1994. In 2006, unauthorized immigrant children represented a small share of U.S. children, 2.1 percent.

Compared with native-born families, immigrant families are more likely to be poor and thus income-eligible for means-tested public assistance programs, such as Temporary Assistance for Needy Families (TANF) and the Supplemental Nutrition Assistance Program (SNAP).<sup>2</sup> However, noncitizens—foreign-born persons who are not U.S. citizens by naturalization, face restrictions on eligibility for these programs.<sup>3</sup> Unauthorized and temporary immigrants are in general ineligible for major federal benefit programs and legal immigrants may also face eligibility restrictions (Fix and Passel 2002).<sup>4</sup> Further, fears and misconceptions about these programs prevent some immigrant families from applying on behalf of eligible U.S. citizen children (Fix and Passel 2002; Henderson, Capps, and Finegold 2008).

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<sup>1</sup> Throughout this study, the term “children with immigrant parents” is used to encompass all children with at least one foreign-born parent, whether the children themselves are native- or foreign-born. An immigrant or foreign-born person is someone born outside the United States and its territories, to parents who are not U.S. citizens. People born in the United States, Puerto Rico, and other territories, or born abroad to U.S. citizen parents, are native-born.

<sup>2</sup> The Food Stamp Program’s name was changed to the Special Nutrition Assistance Program (SNAP) in 2008.

<sup>3</sup> Throughout this study, the term “noncitizen” refers to any immigrant who has not obtained U.S. citizenship through naturalization. Noncitizens include legally present immigrants and unauthorized immigrants. Unauthorized immigrants are residents of the United States who are not U.S. citizens, who do not hold current permanent resident visas or who have not been granted permission under a set of specific authorized temporary statuses for longer-term residence and work (Passel and Cohn 2009).

<sup>4</sup> Unauthorized immigrants are eligible for emergency medical care and public K-12 education.

Two of the largest federal food assistance programs, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and the National School Lunch Program (NSLP) have no eligibility restrictions for either unauthorized or authorized immigrants. These two programs experienced rising participation from the mid-1990s to 2006. With the co-occurring rise in immigrant populations, one question is whether increases in WIC and NSLP participation are due to increased usage by immigrants, particularly whether this use has occurred most for unauthorized immigrants who do not have access to many other public benefits. The extent to which immigrants and children of immigrants are using these programs is currently unknown and no national data have been available to assess their contribution to the growth in participation in WIC and NSLP.

To fill this knowledge gap, this report seeks to assess the extent to which immigrant children and native-born children of immigrant parents are eligible for and participating in the WIC and NSLP programs. First, we examine trends in participation and eligibility in WIC and NSLP by nativity and legal status (see Figure ES-1).<sup>5</sup> Using data from the Current Population Survey (CPS), augmented by the TRIM3 micro-simulation model, this study is the first to estimate eligibility for and participation in the WIC and NSLP programs by nativity and immigrant legal status. TRIM3 assigns legal status to immigrants in the CPS, and these assignments form the basis for the estimates used in this study. Second, we use demographic decomposition to examine the contribution of changes in take-up rates (numbers of participants divided by eligible children), changes in the number of persons eligible, and changes in the demographic composition of mothers and children (e.g., nativity and legal status) on changes in program participation over time.<sup>6</sup> Lastly, we estimate the relationship between nativity and legal status and program take-up rates over time using multivariate regression models. We also examine the role of state immigrant population trends in predicting take-up of WIC and NSLP. Specifically, we look at traditional immigrant-receiving states (e.g., California and Florida), states with rapidly-growing

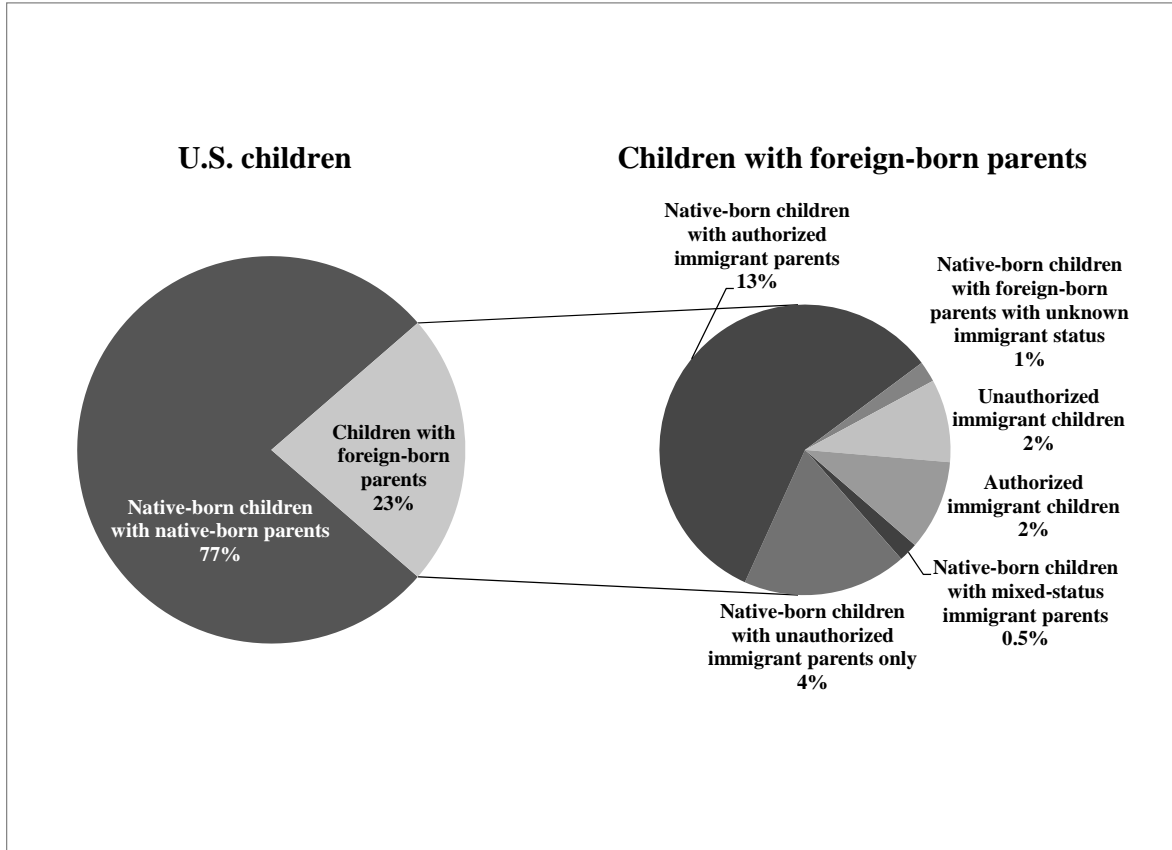
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<sup>5</sup> This study estimates WIC eligibility and participation among breastfeeding and postpartum mothers and their children ages 0 through 4 for 1997 through 2006, and free and reduced-price lunch eligibility and participation for school-age children from 1994 through 2006.

<sup>6</sup> The term “demographic composition” in this report refers to the immigrant status groups as defined in the report, e.g., native-born children of native-born parents, and does not reflect other demographic characteristics, such as age and race/ethnicity.

immigrant populations (e.g., Arizona and North Carolina), and states with slower-growing immigrant populations (e.g., Ohio and Louisiana).

**FIGURE ES-1. Children Grouped by Nativity and Immigrant Status of Child and Parents, 2006**



*Source:* Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments provided by the Transfer Income Model, version 3 (TRIM3).

**Summary of key findings**

**Eligibility and Participation among WIC Children (ages 0–4)<sup>7</sup>**

- **Nearly all of the children eligible for WIC were native-born in both 1997 and 2006 (98.6 percent and 98.2 percent, respectively).** The total number of eligible children increased from 9.5 million in 1997 to 10.2 million in 2006. In 2006, 180,000 immigrant

<sup>7</sup> The analyses in this report combine infants and children age 1 to 4 into one category of WIC children due to sample size restrictions.

children were eligible for WIC, up from 132,000 in 1997.<sup>8</sup> Children of immigrants were a larger share of children eligible for WIC over time; their share increased 23.6 percent in 1997 to 28.2 percent in 2006.

- **The number of children participating in WIC increased from 5.4 to 5.8 million between 1997 and 2006; native-born children with native-born parents represented the largest group of WIC participants, but the growth in WIC participation occurred primarily for children of immigrants.** The number of native-born children with native-born parents participating in WIC declined between 1997 and 2006 from 4.2 to 4.1 million children (Tables ES-1 and ES-2). Between 1997 and 2006, the number and share of children of immigrants—including both immigrant children and native-born children with immigrant parents—participating in WIC increased from 1.2 million (22 percent of all participants) to 1.8 million (31 percent).

The largest growth in terms of number and share of children participating in WIC between 1997 and 2006 was among native-born children with unauthorized immigrant parents. In 1997, 366,000 native-born children with one or both unauthorized immigrant parents participated in WIC (6.8 percent of all participants), and by 2006, they had increased in number to 683,000 (11.7 percent of all participants).

The number and share of unauthorized immigrant children participating in WIC grew between 1997 and 2006, but remained low, accounting for less than one percent of the overall WIC population. The number of unauthorized immigrant children participating in WIC increased from an estimated 35,000 (0.6 percent) in 1997 to an estimated 53,000 (0.9 percent) in 2006.

- **Among all children ages 0 to 4, the WIC participation rate (number of participants divided by number of children age 0 to 4) increased by 1 percentage point from 27.5 percent in 1997 to 28.5 percent in 2006.<sup>9</sup>** Nearly one-third (31.9 percent) of the change in the participation rate can be attributed to changes in the demographic composition of

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<sup>8</sup> Numbers are rounded to the nearest thousand. Percentages are based on the exact estimates. Totals and percentages may not add up due to rounding.

<sup>9</sup> The decomposition analysis examines participation for the entire population of children ages 0 to 4, including income-eligible and ineligible children.

U.S. children (particularly, the number of children with foreign-born parents versus children with native-born parents).<sup>10</sup> Over half (56.4 percent) of the increase in the number of children participating in WIC between 1997 and 2006 was due to increase in the number of children eligible for the program and the remainder, 11.7 percent, was due to an increase in the take-up rate (number of participants divided by number of eligible children). Changes in the demographic composition of participant families (e.g. the increasing number of children with foreign-born parents relative to the number of children with native-born parents) had the greatest effect in traditional immigrant-receiving states and had less of an effect in states with rapidly-growing and slower-growing immigrant populations—mostly because the non-traditional states all have lower immigrant populations.

- **The take-up rate (number of participants divided by the number of eligibles) for WIC was higher among some groups of children of immigrants compared with children of natives after controlling for other factors.** In 1997, native-born children with authorized immigrant parents were no more or less likely than native-born children with native-born parents to take-up WIC. However, native-born children with authorized immigrant parents were 4.1 percentage points<sup>11</sup> more likely than the native-born children with native-born parents to take-up WIC in 2006.

Native-born children with unauthorized immigrant parents were 4.8 percentage points more likely to take-up WIC in 2006 than in 1997 compared with native-born children with native-born parents, but they were not more likely to take-up WIC than native-born children with native-born parents in 2006.

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<sup>10</sup> The effect of changing demographics represents the overall effect and does not identify the children group(s) driving the change. The decomposition technique, however, accounts for all groups by nativity and legal immigrant status (e.g., changes in the number of unauthorized immigrants, authorized immigrants, native-born children of unauthorized immigrants, native-born children of authorized immigrants, and native-born children with native-born parents).

<sup>11</sup> This represents the combined effect—the sum of the main effect (e.g., the likelihood of take-up for the relevant group versus the reference group) and the interaction effect (e.g., the change in the likelihood of take-up between 1997 and 2006 for the relevant group versus the change for the reference group).

Unauthorized immigrant children were no more or less likely to take-up WIC than native-born children with native-born parents, controlling for other factors.

### **Eligibility and Participation among WIC Mothers (Postpartum and Breastfeeding Women)**

- **The number of WIC-eligible breastfeeding and postpartum mothers increased from 837,000 in 1997 to 958,000 in 2006, a 14 percent increase. This increase was largely driven by an increase in unauthorized immigrant mothers eligible for WIC.** The total number of immigrant mothers eligible for WIC increased from 181,000 to 253,000 between 1997 and 2006, and their share increased from 21.6 percent of all eligible mothers in 1997 to 26.4 percent in 2006. Unauthorized immigrant mothers represented 7.2 percent of eligible postpartum and breastfeeding women in 1997; their share increased to 11.9 percent in 2006. The share of eligible women that were authorized immigrants stayed the same, at 14.5 percent.<sup>12</sup>
- **The number of postpartum and breastfeeding mothers participating in WIC increased from 766,000 in 1997 to 873,000 in 2006 (an increase of 14 percent), with greatest growth occurring among unauthorized immigrant mothers.** Between 1997 and 2006, the number of immigrant mothers participating in WIC increased by 42 percent, from 162,000 (21 percent of all participants) to 241,000 (28 percent) compared with native-born mothers who increased in number from 604,000 in 1997 to 632,000 in 2006, a 5 percent increase.

Unauthorized immigrant mothers, while representing a relatively small share of participating mothers in WIC, experienced the greatest growth in number and share between 1997 and 2006. Unauthorized immigrant mothers represented 53,000 (7 percent of all WIC mothers) of those participating in WIC in 1997 and 106,000 (12 percent of all WIC mothers) in 2006. Authorized immigrant mothers made up 110,000 (14 percent of all WIC mothers) of all mothers participating in WIC in 1997 and 134,000 (15 percent of all WIC mothers) of the mothers participating in 2006.

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<sup>12</sup> Numbers are rounded to the nearest thousand. Percentages are based on the exact estimates. Totals and percentages may not add up due to rounding.

- **Among all breastfeeding and postpartum mothers, the WIC participation rate (number of participants divided by number of mothers) increased by 0.7 percentage points from 25.9 percent in 1997 to 26.6 percent in 2006, largely due to the demographic composition of mothers.**<sup>13</sup> Of the 0.7 percentage point increase in the WIC participation rate among mothers, over 70 percent (71.6 percent) of the change in the participation rate over time can be attributed to changes in the demographic composition of mothers (i.e., native-born v. foreign-born). The remainder of the change in the participation rate was due to changes in the take-up rate and eligibility for WIC among breastfeeding and postpartum women.
- **There is some evidence that the WIC take-up rate of breastfeeding and postpartum mothers varies by state and immigrant status. Among all eligible mothers, unauthorized immigrant mothers in states with rapidly growing immigrant populations were more likely to take-up WIC in 2006 than native-born mothers, controlling for other factors.** Unauthorized immigrant mothers in states with rapidly-growing immigrant populations were 8.4 percentage points more likely to take-up WIC than native-born mothers in 2006. Unauthorized immigrant mothers in traditional immigrant-receiving states were 5.7 percentage points more likely to take-up WIC in 2006 than in 1997 compared with native-born mothers, but in 2006, they were no more or less likely than native-born mothers to take-up WIC.

#### **Eligibility and Participation among NSLP Children (Free Lunches)**

- **The number of children eligible for free lunches declined from 18.6 million in 1994 to 14.2 million in 2006, driven primarily by a decline in eligible native-born children with native-born parents. The number of children of immigrants eligible for free lunches increased between 1994 and 2006.** Immigrant children represented 8 percent of children ages 5 to 8 eligible for free lunches in both 1994 and 2006. However, the share of eligible children that have immigrant parents increased from 20.3 percent to 27.8 percent during this time. The increase was driven mostly by native-born children with

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<sup>13</sup> The decomposition analysis examines participation for the entire population of breastfeeding and postpartum mothers, including income-eligible and ineligible women.

unauthorized immigrant parents whose numbers more than doubled from 394,000 in 1994 to 946,000 in 2006.<sup>14</sup>

- **The number of children participating in free lunches increased from 12.1 million in 1994 to 13.7 million in 2006 (an increase of 13 percent), with the largest growth among children of immigrants.** Between 1994 and 2006, the number and share of children of immigrants participating in free lunches increased from 2.6 million (21 percent of all participants) to 3.8 million (28 percent). To put the numbers in perspective, the number of native-born children with native-born parents participating in free lunches grew from 9.5 million in 1994 to 9.9 million in 2006.

The number and share of native-born children with unauthorized immigrant parents participating in the free lunches grew between 1994 and 2006. In 1994, native-born children with one or both unauthorized immigrant parents comprised 3 percent (310,000) of all children participating in free lunches, and in 2006, their share had more than doubled to 7 percent (914,000 children).

The number and share of unauthorized immigrant children participating in free lunches grew between 1994 and 2006—from an estimated 380,000 (3 percent) in 1994 to an estimated 603,000 (4 percent) in 2006, but their number and share remained relatively low.

- **Among all children ages 5 to 18, the free lunch participation rate (number of participants divided by number of children ages 5 to 18) increased by 1.1 percentage points, from 22.6 percent in 1994 to 23.7 percent in 2006. This increase was largely influenced by increases in take-up and eligibility among children ages 5 to 18.**<sup>15</sup> Of the 1.1 percentage point increase in the participation rate, changes in the demographic composition of U.S. children (i.e., children with foreign-born parents versus children with native-born parents) contributed 0.3 percentage points. Changes in the number of

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<sup>14</sup> Numbers are rounded to the nearest thousand. Percentages are based on the exact estimates. Totals and percentages may not add up due to rounding.

<sup>15</sup> The decomposition analysis examines participation for the entire population of children ages 5 to 18, including income-eligible and ineligible children.



children eligible contributed -8.4 percentage points and changes in the take-up rate (number of participants divided by number of eligible children) contributed 9.2 percentage points, which suggests that decreases in the number of children eligible and increases in the take-up rate were more influential on the overall participation rate than changes in the demographic composition of children.

- **There is some evidence that the take-up rate among children eligible for free lunches is associated with the legal status of children and their parents, all else constant.** Native-born children with unauthorized immigrant parents were 6.2 percentage points *less* likely to take-up free lunches in 2006 compared with native-born children with native-born parents, controlling for other factors even though they were 8.6 percentage points *more* likely to take-up free lunches in 1994. Native-born children with unauthorized immigrant parents were less likely to take-up free lunches in 2006 compared with native-born children in both traditional immigrant-receiving states and states with slower-growing immigrant populations. This was not the case for states with rapidly-growing immigrant populations.

Among children eligible for free lunches, unauthorized immigrant children were 2.9 percentage points *less* likely to take-up free lunches than native-born children with native-born parents in 2006. Looking at differences in take-up rates by type of state, this relationship held only for children eligible for free lunches from traditional immigrant-receiving states.

#### **Eligibility and Participation among NSLP Children (Reduced-Price Lunches)**

- **Children of immigrants accounted for 31.9 percent of children eligible for reduced-price lunches in 2006, up from 21.3 percent in 1994; the increase was driven by native-born children of immigrants.** The number of native-born children of authorized immigrant parents eligible for reduced-price lunches increased from 535,000 to 944,000

between 1994 and 2006.<sup>16</sup> Similarly, the number of native-born children of one or both unauthorized immigrant parents more than doubled from 135,000 to 398,000 during this time.

- **The number of children participating in reduced-price lunches increased from 1.9 to 2.9 million between 1994 and 2006, with the most growth attributable to children of immigrants.** Between 1994 and 2006, the number of children of immigrants participating in reduced-price lunches increased from 453,000 (24 percent) to 1.0 million (35 percent). The number of children with native-born parents participating in reduced-price lunches increased from 1.4 to 1.9 million between 1994 and 2006.

The share of unauthorized immigrant children participating in reduced-price lunches grew between 1994 and 2006, but remained low. The number of unauthorized immigrant children participating in reduced-price lunches increased from an estimated 71,000 (4 percent) in 1994 to an estimated 152,000 (5 percent) in 2006.

- **Among all children ages 5 to 18, the reduced-price lunch participation rate (number of participants divided by number of children ages 5 to 18) increased by 1.6 percentage points from 3.5 percent of all school-aged children in 1994 to 5.1 percent of all school-aged children in 2006; little of this effect was due to changes in the demographic composition of children ages 5 to 18.** Of the 1.6 percentage point increase, changes in the demographic composition of U.S. children (e.g., children of native-born parents vs. children of foreign-born parents) contributed 0.2 percentage points. An increase in the take-up rate (number of participants divided by number of eligible children) between 1994 and 2006 contributed the most to the participation rate (0.9 percent), followed by an increase in the number of children eligible for reduced-price lunches (0.5 percent).
- **There is some evidence that unauthorized immigrant children are more likely than children of natives to take-up reduced-price lunches, after accounting for other factors.** In 2006, unauthorized immigrant children in traditional immigrant-receiving

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<sup>16</sup> Numbers are rounded to the nearest thousand. Percentages are based on the exact estimates. Totals and percentages may not add up due to rounding.

states were 15.5 percentage points more likely to take-up reduced-price lunches than native-born children with native-born parents, holding other factors equal. Unauthorized immigrant children in states with slower-growing immigrant populations were more likely to take-up reduced-price lunches than native-born children with native-born parents in 1994, but there is no evidence that this was the case in 2006.

The population of low-income immigrants and their children increased rapidly during the study period. The results of this study reveal a concurrent increase in the number and share of children of immigrants and immigrant mothers participating in the WIC and NSLP programs. Despite these increases, our study finds that for children of immigrants and immigrant mothers, their share of participants is generally comparable to their share of the eligible population. This is also true for unauthorized immigrant mothers and children as well as children of unauthorized immigrants. Further, unauthorized immigrants still make up a relatively small share of those participating in WIC and NSLP in 2006: 0.9 percent of WIC children, 12.2 percent of WIC mothers, 4.4 percent of children receiving free lunches, and 5.2 percent of children receiving reduced-price lunches. Native-born children of one or both unauthorized immigrant parents represent slightly larger shares of WIC participants (11.7 percent) and NSLP participants (6.7 percent of free lunch and 7.9 percent of reduced price lunch participants).

Changes in the composition of immigrants (e.g., unauthorized versus authorized immigrants) do not appear to be the driving factor in participation trends in WIC and NSLP between the mid-1990s and 2006. We find that changes in the number of eligible children and changes in the take-up rates (e.g., likelihood of participation when eligible) are the main drivers of program growth among children, not changes in the demographic composition of the eligible populations. In short, children of immigrants did not become significantly more likely than other children to participate—given their eligibility—over the period of study. On the other hand, we find that changes in the demographic composition for mothers are the primary drivers of participation increases in WIC among mothers—meaning that immigrant mothers did disproportionately increase their participation relative to U.S.-born mothers.

We find mixed evidence concerning whether immigrants and their children are more likely to take-up WIC and NSLP. We found that native-born children of authorized immigrants were *more* likely to take-up WIC than native-born children with native-born parents in 2006. We also found that authorized immigrant mothers were *more* likely to take-up WIC in 2006 than native-born mothers. With regard to take-up of NSLP, we find that in 2006 unauthorized immigrant children were *more* likely to take-up reduced-price lunches than native-born children with native-born parents, but only in traditional immigrant-receiving states. Finally, we found that all immigrant groups except authorized immigrants were *less* likely to take-up free lunches in 2006 than native-born children with native-born parents.

Taken together, our findings suggest that immigrants' fears about participating in TANF, SNAP, and other benefits subject to immigration-related eligibility restrictions do *not* extend to benefits like WIC and NSLP that do not include these restrictions. Neither does it seem that unauthorized immigrant parents are afraid to apply for their citizen children (or their unauthorized immigrant children or themselves for that matter) for WIC and NSLP. The different settings in which parents apply for these benefits—health clinics for WIC and schools for NSLP—appear to have insulated immigrants from the fears, concerns, and access barriers noted for welfare offices and other settings in which SNAP and TANF benefits are handled. WIC and NSLP appear to be important food assistance programs for immigrant families that might not be eligible or reluctant to apply for other public benefits.

**TABLE ES-1. Number and Percent of WIC Participants in 1997 and NSLP Participants in 1994, by Immigrant Status Group**

	WIC (1997)				NSLP (1994)			
	Mothers		Children 0 to 4		Free		Reduced Price	
	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%
Native-born	604	78.8%						
Native-born Child, Native-born Parents			4,197	77.5%	9,509	78.5%	1,401	75.6%
Native-born Child, Authorized Immigrant Parents			741	13.7%	1,223	10.1%	243	13.1%
Native-born Child, Unauthorized Immigrant Parents			309	5.7%	275	2.3%	61	3.3%
Native-born Child, Mixed-Status Parents			56	1.0%	35	0.3%	17	0.9%
Native-born Child, Foreign-born Parents (status unknown)			43	0.8%	47	0.4%	5	0.3%
Authorized Immigrant	110	14.3%	32	0.6%	643	5.3%	55	3.0%
Unauthorized Immigrant	53	6.9%	35	0.6%	380	3.1%	71	3.9%
<b>Total</b>	<b>766</b>	<b>100.0%</b>	<b>5,414</b>	<b>100.0%</b>	<b>12,113</b>	<b>100.0%</b>	<b>1,854</b>	<b>100.0%</b>

*Note:* WIC participants include postpartum and breastfeeding women and children ages 0 to 4. NSLP participants include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas. For detailed definitions see Appendix C.

*Source:* Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE ES-2. Number and Percent of WIC and NSLP Participants in 2006, by Immigrant Status Group**

	WIC				NSLP			
	Mothers		Children 0 to 4		Free		Reduced Price	
	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%
Native-born	632	72.4%						
Native-born Child, Native-born Parents			4,053	69.3%	9,856	72.1%	1,904	65.2%
Native-born Child, Authorized Immigrant Parents			978	16.7%	1,622	11.9%	512	17.5%
Native-born Child, Unauthorized Immigrant Parents			625	10.7%	833	6.1%	195	6.7%
Native-born Child, Mixed-Status Parents			59	1.0%	81	0.6%	35	1.2%
Native-born Child, Foreign-born Parents (status unknown)			42	0.7%	174	1.3%	21	0.7%
Authorized Immigrant	134	15.4%	38	0.6%	509	3.7%	99	3.4%
Unauthorized Immigrant	106	12.2%	53	0.9%	603	4.4%	152	5.2%
<b>Total</b>	<b>873</b>	<b>100.0%</b>	<b>5,848</b>	<b>100.0%</b>	<b>13,678</b>	<b>100.0%</b>	<b>2,919</b>	<b>100.0%</b>

*Note:* WIC participants include postpartum and breastfeeding women and children ages 0 to 4. NSLP participants include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas. For detailed definitions see Appendix C.

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## INTRODUCTION

Due to rapid immigration, children with immigrant parents—those with at least one foreign-born parent—are the fastest growing component of the U.S. child population.<sup>17</sup> In 1990, 13 percent of all U.S. children had at least one immigrant parent; this included native-born children with foreign-born parents and children that were foreign-born themselves. By 2006, the share of children of immigrants had risen to 23 percent (Fortuny, Capps, Simms, and Chaudry, 2009). Immigrant families are more likely than native families to be low-income and experience economic hardship that would make them income-eligible for means-tested programs, such as Temporary Assistance for Needy Families (TANF) and the Supplemental Nutrition Assistance Program (SNAP) (Capps, Fix, Ost, Reardon-Anderson, and Passel, 2004; Hernandez, 2004).<sup>18</sup> Nevertheless, research has found that immigrant parents’ fears about deportation, citizenship applications, relative’s sponsorship, language barriers, and difficulty documenting employment and earnings are all associated with lower rates of immigrant involvement with public service systems (Capps, Ku, et al. 2002; Capps, Hagan, and Rodriguez 2004; Holcomb et al. 2003; Capps and Fortuny 2006). Further, relatively high levels of food insecurity have been documented in immigrant households (Capps, Fix, Ku et al., 2002; Capps, 2001). Yet, legal immigrants face many restrictions on eligibility for major federal benefit programs and participation in many of these programs by unauthorized or temporary immigrants is prohibited altogether (Fix and Passel 2002). Fears and misconceptions about these programs prevent some immigrant families from applying on behalf of eligible U.S. citizen children (Fix and Passel 2002; Henderson, Capps, and Finegold 2008).

There are currently no restrictions on the eligibility of noncitizens—whether legal, temporary, or unauthorized immigrants—for the Special Supplemental Nutrition Program for Women, Infants,

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<sup>17</sup>Throughout this study, the term “children with immigrant parents” is used to encompass all children with at least one foreign-born parent, whether the children themselves are native- or foreign-born. An immigrant or foreign-born person is someone born outside the United States and its territories, to parents who are not U.S. citizens. People born in the United States, Puerto Rico, and other territories, or born abroad to U.S. citizen parents, are native-born.

<sup>18</sup> The Food Stamp Program’s name was changed to the Special Nutrition Assistance Program (SNAP) in 2008.

and Children (WIC) or the National School Lunch Program (NSLP).<sup>19</sup> Though federal law does not prohibit participation for unauthorized immigrants in these programs, states can restrict WIC participation based on immigrant legal status. Currently, no states have restricted participation. This is not an option for NSLP, as the Department of Agriculture has determined that the NSLP program is not subject to Title IV of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA),<sup>20</sup> which restricts certain welfare and public benefits for unauthorized immigrants.

Income eligibility restrictions do apply to both programs. Families at or below 185 percent of the Federal Poverty Level (FPL) are eligible for WIC and reduced-price lunches and families at or below 130 percent of FPL are eligible for free lunches.<sup>21</sup> Adjunctive eligibility for WIC is conferred by Medicaid, TANF and SNAP, and TANF and SNAP confer eligibility for NSLP.

The extent to which demographic and economic factors are affecting both eligibility and participation in WIC and NSLP has not been adequately studied. Studying SNAP, Capps, Fix, and Henderson (2009) found that eligible families with noncitizen members participated at significantly lower rates than families composed entirely of citizens, and so the increasing share of noncitizen families in the eligible population has somewhat slowed overall participation growth. Additionally, many immigrants cannot or choose not to access TANF, SNAP, Medicaid, and similar benefits, and that could mean they may also be less likely to access WIC, and might not have the adjunctive eligibility for WIC or NSLP that participation in the other programs can confer. On the other hand, because some immigrants, especially the unauthorized, are barred from accessing TANF, SNAP, and other means tested benefits, they may be more likely to participate than the native-born in programs like WIC or NSLP for which they are eligible as their sole means to address their food insecurity needs.

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<sup>19</sup> Noncitizens are foreign-born persons that have not become naturalized U.S. citizens. These include legal immigrants, such as legal permanent residents and refugees, and unauthorized immigrants.

<sup>20</sup> Public Law 104-193.

<sup>21</sup> In 2006, the federal poverty level was \$20,614 for a family of four, slightly higher for larger families, and lower for smaller families. 185 percent of the federal poverty level was \$38,136 for a family of four.

Low-income immigrant families may rely heavily on these nutrition programs, and their participation in WIC and NSLP may be rising quickly, especially as their ability to access the largest food and nutrition program, SNAP, is subject to eligibility restrictions.<sup>22</sup> No national data currently exist to assess the extent to which immigrant children and children of immigrants may be relying on these programs and are contributing to the growth in these programs. To fill this knowledge gap, this report seeks to assess the extent to which immigrant children and native-born children of immigrant parents are eligible for and participating in the WIC and NSLP programs.

The data used for this study come from the Current Population Survey, Annual Social and Economic Supplement (CPS-ASEC) and WIC and NSLP administrative data. We estimate program eligibility and participation using the Transfer Income Model (TRIM3) funded primarily by the Department of Health and Human Services. TRIM3 also imputes the legal status of immigrants based on information such as country of origin and year of immigration.

#### *Definition of Immigrant Status and Immigrant Status Groups for this Analysis*

An immigrant or foreign-born person is someone born outside the United States and its territories. We use the term “authorized immigrant” for foreign-born persons who are legal permanent residents (LPRs), legal temporary residents (LTRs), refugees, or naturalized U.S. citizens. “Unauthorized immigrant” is used for all other foreign-born persons. The term “unauthorized” is used because, in the opinion of the authors and their colleagues, it best encompasses the population in the data. Many immigrants now enter the country or work using counterfeit documents; many others enter and obtain employment with valid documents that expire. Some others have petitioned for permanent residency and are waiting for a decision, or are in a Temporary Protected Status (TPS)—a form of temporary residency and work permit extended to immigrants from countries experiencing natural disasters or other extreme events, such as the recent earthquake in Haiti. Thus, these immigrants are “unauthorized” but not all are “undocumented,” in the sense that they might have documents, but these documents only allow

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<sup>22</sup> U.S. citizen children and legal immigrant children are eligible for SNAP, but all unauthorized immigrants and most legal immigrants age 18 and older with less than five years of U.S. residency are barred from the federal program (Henderson, Capps, and Finegold 2008).



them to stay in the country temporarily (Fortuny, Capps, and Passel 2007). The report also makes the distinction between citizens and noncitizens. Noncitizens are foreign-born persons that have not become naturalized U.S. citizens. These include legal immigrants, such as legal permanent residents and refugees, and unauthorized immigrants.

We examine the following immigrant groups in this report:

*Children (WIC and NSLP Analyses)*

For this analysis, children are categorized based on both their immigrant status and the immigrant status of their parents, to form seven groups in all, five of which are sub-groups of native-born children, and two are sub-groups of immigrant children:

- Native-born children with native-born parents—these include native-born children with two native-born parents or with one native-born single parent living in the household. Native-born children without parents living in the household but whose parents were born in the United States, Puerto Rico, or the U.S. territories are also included in this group.
- Native-born children with authorized immigrant parents—native-born children who have at least one foreign-born parent who is an LPR, LTR, refugee, or naturalized citizen, and who do not have an unauthorized immigrant parent. Children with one native-born parent and one authorized immigrant parent are included in this group.
- Native-born children with unauthorized immigrant parents only—native-born children whose parents are all unauthorized immigrants.
- Native-born children with unauthorized and authorized immigrant parents—native-born children who have one parent who is an unauthorized immigrant and one parent who is authorized. We sometimes refer to this group as native-born children with mixed-status parents.
- Native-born children with parents with unknown immigrant status—native-born children without parents living in the household, whose parents were born outside the United States, Puerto Rico, or the U.S. territories, but for whom immigrant status is not available in the survey data.

- Authorized immigrant child—all foreign-born children who are legal permanent residents (LPRs), legal temporary residents (LTRs), refugees, or naturalized U.S. citizens.<sup>23</sup> LTRs include dependents of immigrants with student visas or temporary work permits (for instance, H1-Bs).
- Unauthorized immigrant child—all foreign-born children who are unauthorized immigrants.

### *Mothers (WIC Analyses)*

For the analysis, mothers are categorized based on their immigrant status:

- Native-born mothers—all native-born mothers.
- Authorized immigrant mothers—all foreign-born mothers who are LPRs, LTRs, refugees, or naturalized citizens.
- Unauthorized immigrant mothers—all foreign-born mothers who are unauthorized immigrants.

### *Research Questions:*

The following are the key research questions addressed in this report, and the basis for how the report's findings are organized:

1. What are the trends in the number of immigrant mothers and children eligible for and participating in WIC and in the number of immigrant children eligible for and participating in NSLP?
2. How do trends differ for children who are authorized immigrants and unauthorized immigrants? How do trends differ for native-born children with native-born parents versus native-born children with authorized and unauthorized immigrant parents?
3. How much of the increase in immigrant participation in these programs is driven by increases in the eligible population versus changes in take-up rates (number of participants divided by number of eligible children)?

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<sup>23</sup> It was not possible to examine naturalized U.S. citizens separately because of their small number in the survey data.

4. How much of the overall increases in the eligible and participating populations are accounted for by these various immigrant status groups?
5. To what extent are changes over time in WIC and NSLP participation explained by growth in the population of eligible immigrants, changes in economic conditions, and other factors?
6. How do trends in overall and immigrant eligibility and participation vary by state? How do they vary between the large traditional immigrant receiving states (California, New York, Florida, Texas, New Jersey, and Illinois) and states experiencing rapid recent growth in their immigrant populations (such as North Carolina or Georgia)?

To answer these questions we provide results from three analyses in this report. First, we examine trends in participation and eligibility in WIC and NSLP by nativity and legal status to answer research questions 1 and 2. This study estimates WIC eligibility and participation among breastfeeding and postpartum mothers<sup>24</sup> and children ages 0 through 4<sup>25</sup> for 1997 through 2006, and free and reduced-price lunch eligibility and participation for school-age children from 1994 through 2006.<sup>26</sup> Second, we examine the contribution of changes in take-up rates (numbers of participants among eligible children), changes in the number of persons eligible, and changes in the immigrant status of mothers and children (nativity and legal status) on changes in program participation over time to answer questions 3, 4, and 6. Lastly, to answer research questions 5 and 6 we estimate the relationship between nativity and legal status and program participation over time using multivariate regression models.

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<sup>24</sup> We do not include pregnancy related eligibility in this report. The CPS-ASEC does not provide any direct indication of pregnancy. Although TRIM3 imputes pregnancy status to some women, it does not provide a comprehensive and consistent set of pregnancy imputations for the period analyzed. As this year's pregnant women are next year's mothers of infants, we expect nativity and citizenship patterns among pregnant women are likely similar to those for postpartum and breastfeeding mothers. Bartlett et al. (2007) do not report data on citizenship or nativity, but their tables showing race and ethnicity by participant category suggest that those characteristics, which are associated with citizenship and nativity, are similar for pregnant women and mothers of infants.

<sup>25</sup> This analysis combines infants and children age 1 to 4 into one category of WIC children due to sample size restrictions.

<sup>26</sup> The public use CPS-ASEC data have included NSLP items since the March 1980 survey. But TRIM3 first developed immigrant status assignments for the foreign-born population in March 1995 (CY 1994) CPS-ASEC, and thus 1994 is the first year of data available for our analysis. The CPS-ASEC has included WIC items since March 2001 (CY 2000) and we were also able to analyze data on WIC participation that were collected on an experimental basis in the March 1998, 1999, and 2000 CPS-ASEC surveys, providing data on CY 1997 to 1999. For more information about the WIC simulation see Appendix A and for NSLP, Appendix B. We do not produce estimates for 1996, as immigrant imputations for the CPS were not produced for that year.

For the demographic decomposition and multivariate analyses, we also examine whether results differ by the type of state in which WIC and NSLP participants reside: traditional-immigrant-receiving states, states with rapidly-growing immigrant populations, and states with slower-growing immigrant populations (Capps et al. 2007; Fortuny, Capps, and Passel 2007; Fortuny, Capps, Simms, and Chaudry, 2009). Traditional immigrant-receiving states include California, New York, Texas, Florida, Illinois, and New Jersey; states with rapidly-growing immigrant populations include Alabama, Arizona, Arkansas, Colorado, Delaware, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Minnesota, Mississippi, Nebraska, Nevada, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Utah, and Washington; and states with slower-growing populations include those states not in the two aforementioned groups (Exhibit A).

**EXHIBIT A. Type of State Based on Immigration Trends**

<b>Traditional Immigrant-Receiving States</b>	<b>States with Rapidly-Growing Immigrant Populations<sup>1</sup></b>	<b>States with Slower-Growing Immigrant Populations</b>
California	Alabama	Alaska
New York	Arizona	Connecticut
Texas	Arkansas	District of Columbia
Florida	Colorado	Hawaii
Illinois	Delaware	Louisiana
New Jersey	Georgia	Maine
	Idaho	Maryland
	Indiana	Massachusetts
	Iowa	Michigan
	Kansas	Missouri
	Kentucky	Montana
	Minnesota	New Hampshire
	Mississippi	New Mexico
	Nebraska	North Dakota
	Nevada	Ohio
	North Carolina	Pennsylvania
	Oklahoma	Rhode Island
	Oregon	South Dakota
	South Carolina	Vermont
	Tennessee	Virginia
	Utah	West Virginia
	Washington	Wisconsin
		Wyoming

**Note:** <sup>1</sup>In the 22 high-growth immigration states, the foreign-born populations grew more quickly between 1990 and 2000 than they did in the six traditional immigrant-receiving states (Capps et al. 2007; Fortuny, Capps, and Passel 2007).

The findings of this report indicate that there has been substantial growth in the population of children of immigrants that participate in WIC and NSLP, which is not surprising given that there has been substantial growth in the population of children of immigrants during this time. Most of the growth in children participating in WIC and NSLP has been among native-born children with immigrant parents, and to a lesser extent among children who are themselves immigrants. This is also not surprising given that the majority (81 percent) of children of immigrants are born in the United States. Younger children are more likely than older children to be native-born—93 percent of children of immigrants age 0 to 4 are native-born compared with 76 percent of those age 5 to 18. This helps explain the very small share of WIC participants that

are unauthorized immigrant children (0.9 percent) and the slightly higher share of NSLP participants that are unauthorized immigrants (4.4 percent for free price lunch and 5.2 percent for reduced price lunch).

The participation trends suggest that the NSLP and WIC programs may continue to experience large increases in the number of children of immigrants in the future. Future participation trends are likely to depend on both immigration flows and economic conditions. Research has shown that growth and declines in the foreign-born population are sensitive to the economy. In times of slow economic growth, the immigrant population, particularly the unauthorized population, tends to grow more slowly or even decline (Papademetriou and Terrazas 2009). For instance Passel and Cohn (2009) estimate that, due to the recession beginning in 2008, the unauthorized population showed no net increase between 2006 and 2008 and a recent report from the Department of Homeland Security (2010) indicates that there has been a decline in the population of unauthorized immigrants. But there has yet to be such a decline in authorized immigrants; their migration behavior is less affected by economic conditions, as most waited in line for family-based visas for many years before being allowed to immigrate.

Even when immigration slows or declines, however, the population of children of immigrants may continue to increase due to high birthrates among immigrants and population momentum (e.g., children of immigrants born in the United States age into NSLP for years after their parents immigrated and gave birth to them). Even between 2006 and 2008, when the unauthorized immigrant population stopped growing, the number of native-born children with unauthorized immigrant parents grew rapidly (Passel and Cohn 2009). Thus one would expect to continue to see growth in the number of native-born children with unauthorized immigrant parents in the U.S. population for the foreseeable future.

Finally, because eligibility for both programs is based on family income, WIC and NSLP participation of immigrants and their children will vary based on economic conditions. The unemployment rate for immigrants overall is currently only slightly higher than the rate for the native-born, but the rate for immigrants from Mexico and Central America—many of whom are unauthorized—is several points higher, suggesting that unauthorized immigrants may be

disproportionately affected by the current recession (Papademetriou and Terrazas 2009). Changing economic conditions—which have increased poverty among unauthorized families—could offset the decline in immigration, leading to greater eligibility and participation of unauthorized immigrants in both programs in the coming years. Increasing poverty in unauthorized families combined with the population momentum described above could together contribute to significant ongoing increases in the numbers of native-born children with unauthorized immigrant parents in both programs.

The following describes the organization of this report. We begin with a short description of the WIC and NSLP programs and what is currently known about immigration and service use amongst immigrant populations. Next, we describe the methods and data used to impute immigrant status and program eligibility and participation. We then turn to the findings from the three analyses. We conclude with a brief discussion about the potential implications of the findings. Additionally, there are appendices describing in greater detail the imputation methods used and sensitivity testing conducted.

## BACKGROUND

Federal nutrition programs such as WIC and NSLP provide an important safety net for low-income families and play an important role in promoting food security and preventing hunger. In 2006, 12.6 million (11 percent) of all U.S. households were food insecure (Nord, Andrews, and Carlson 2008).<sup>27</sup> Food insecure households depend on a variety of public and private assistance programs to help them obtain safe and nutritious food for their children. Chief among these are the federal programs that provide nutrition assistance, the largest of which are SNAP, NSLP, and WIC.<sup>28</sup> In fiscal year 2007, SNAP served more than 13 million children each month; the NSLP served more than 31 million children each school day between September and May; and the WIC program served more than 8 million women and children each month.<sup>29</sup> Combined, these programs cost over \$47 billion in 2007.<sup>30</sup> There are other, smaller federal nutrition programs (such as school breakfast and summer food programs for school-age children), but the three programs serve by far the most people and account for most of the federal spending on nutrition assistance.

WIC provides benefits via voucher, coupon, or electronic benefit transfer card to purchase nutritious foods, as well as nutrition education and referrals to other services for low-income pregnant women, new mothers, and infants and young children from one through four who are at nutritional risk. Mothers and children who meet these categorical requirements and the nutritional risk criteria qualify for WIC if their family incomes are at or below 185 percent of FPL. Eligibility for WIC is also conferred through eligibility for TANF, SNAP, and Medicaid and for this reason, mothers and children with higher incomes may qualify for WIC. This may be particularly true for Medicaid adjunctive eligibility, given that income eligibility for Medicaid is higher than 185 percent of FPL in some states.

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<sup>27</sup> Food insecurity is a household-level economic and social condition of limited or uncertain access to adequate food.

<sup>28</sup> In a previous report to the Economic Research Service, Henderson, Capps and Finegold (2008) examined trends in Food Stamp Program eligibility and participation among immigrants.

<sup>29</sup> Food and Nutrition Service, USDA administrative data, available at [www.usda.gov](http://www.usda.gov).

<sup>30</sup> Food and Nutrition Service, USDA administrative data, available at [www.usda.gov](http://www.usda.gov).

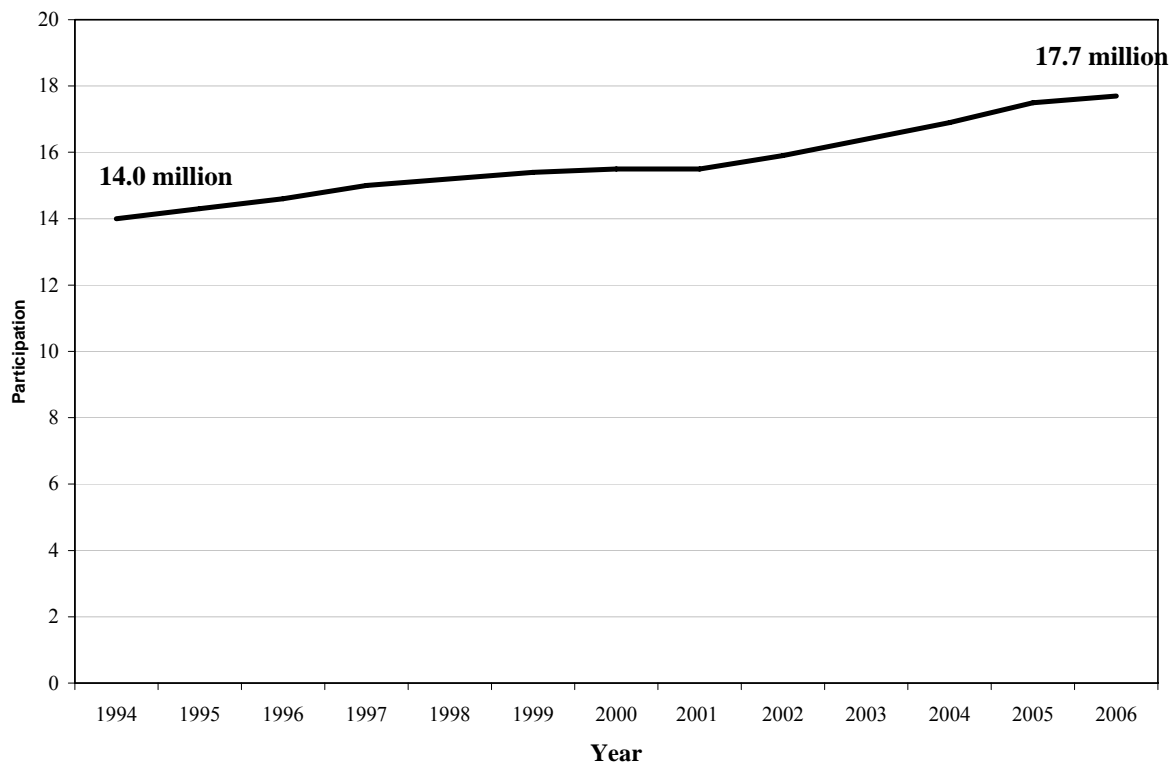


There are currently no restrictions on the eligibility of noncitizens—whether legal, temporary, or unauthorized—for WIC or NSLP. Though federal law does not prohibit participation for unauthorized immigrants in these programs, states can restrict WIC participation based on immigrant legal status. Currently, no states have restricted participation. In contrast, SNAP, TANF, and Medicaid do restrict the eligibility of legal immigrants and prohibit participation by temporary or unauthorized immigrants. This may suggest that even though Medicaid income-eligibility in some states may exceed WIC income-eligibility, few higher-income immigrants may qualify for adjunctive eligibility through Medicaid because of restrictions based on immigrant status.

NSLP provides free lunches for children with family incomes at or below 130 percent of the FPL in participating public or private schools. Children with incomes between 131 percent and 185 percent of the FPL qualify for reduced-price lunches that cost them no more than 40 cents per day. Participation in SNAP or TANF (but not Medicaid) confers adjunctive eligibility for free lunches in NSLP. Like WIC, NSLP does not restrict eligibility based on citizenship. States do not have the option to restrict participation of unauthorized immigrants, as the Department of Agriculture has determined that the NSLP program is not subject to Title IV of PRWORA, which restricts certain welfare and public benefits for unauthorized immigrants.

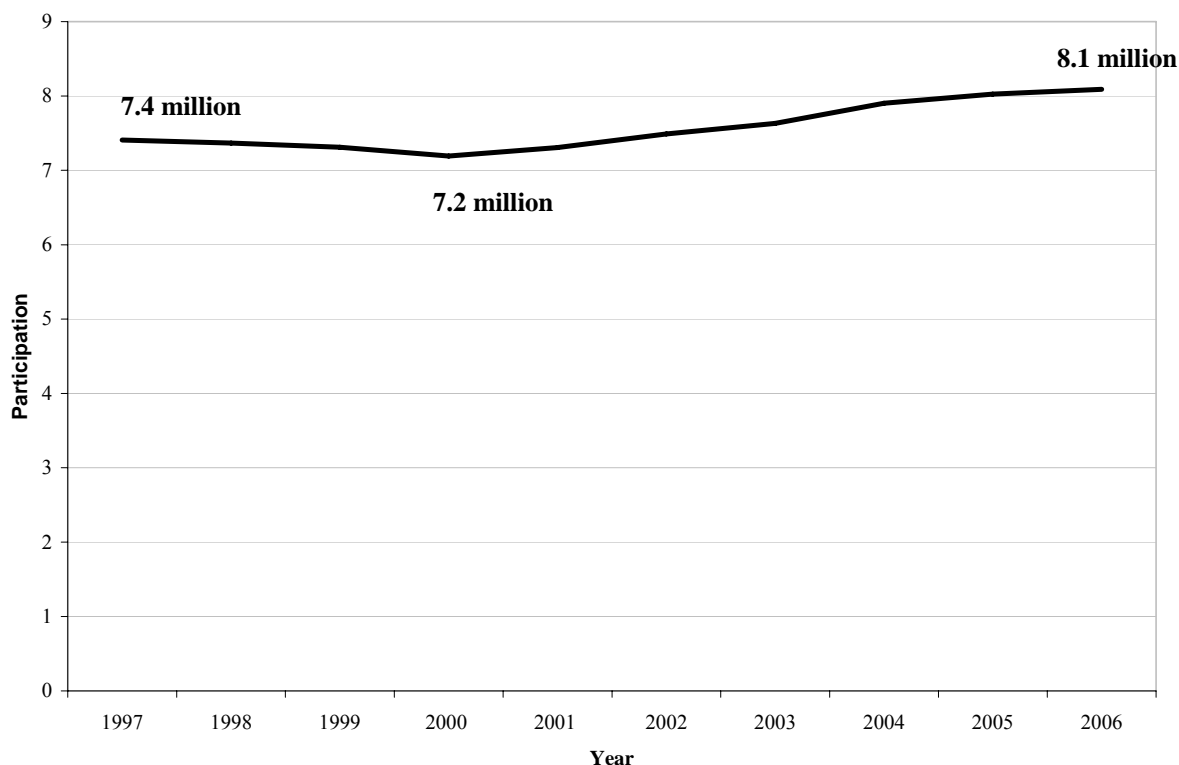
During the period covered in this study for NSLP, 1994 to 2006, the number of children receiving free and reduced-price lunches increased by 26 percent (Figure 1). The WIC program also witnessed growth over the period of time covered by this study, 1997 to 2006. The number of mothers and children participating in WIC grew by 9 percent (Figure 2). In part, eligibility and participation in these programs fluctuate according to economic conditions. For instance, the number of WIC participants fell by about 3 percent between 1997 and 2000, a period of strong economic growth and declining child poverty. From 2000 through 2006, a period of weaker economic growth, WIC participation grew by about 12 percent. One would expect to see much more dramatic increases in participation in both programs during the past couple of years, since the current economic crisis began in 2008—however, participation data for this period is as yet unavailable.

**FIGURE 1. Average Monthly Free and Reduced-Price Lunch Participation in the NSLP Program, 1994–2006 (millions)**



**Source:** Food and Nutrition Service, USDA administrative data, available at <http://www.fns.usda.gov/pd/slsummar.htm>, retrieved in May 2009.

**FIGURE 2. Average Monthly Participation in the WIC Program, 1997–2006 (millions)**



**Source:** Food and Nutrition Service, USDA administrative data, available at <http://www.fns.usda.gov/pd/wisummary.htm>, retrieved in May 2009.

There are a number of factors that may have led to changes in the number of WIC and NSLP participants, including changes in economic conditions and growth in the child and immigrant populations. For instance, changes in the poverty rate affect participation (Castner, Mabli, and Sykes 2009). The proportion of children with family incomes at or below 185 percent of FPL declined from 43 percent in 1994 to 36 percent in 2000.<sup>31</sup> Declining poverty may thus partially explain the drop in overall WIC participation between 1997 and 2000. NSLP participation, on the other hand, continued to increase during this time period, suggesting that other factors besides poverty rates impact participation, at least for NSLP. Nonetheless, weaker economic conditions since 2000—and especially in the last three years—have highlighted the importance of nutrition safety net programs for child well-being.

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<sup>31</sup> Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement.

Some of the recent growth in WIC and NSLP may be attributable to rapid immigration. In 2006, the total foreign-born population was 37.3 million (12.6 percent), up from 24.5 million (9.4 percent) in 1994 (Table 1). Some of this growth is attributable to the growth in the number of children. A growing number of native-born children in the United States have immigrant parents due to a rise in immigration flows during and since the 1990s. The number of native-born children ages 0 to 18 with at least one foreign-born parent increased from 9.6 million in 1994 to 14.4 million in 2006. During this time the number of native-born children with native-born parents remained relatively level, so the growth in children of immigrants accounted for much of the change in the child population (Fortuny and Chaudry 2009). As a result, the share of native-born children that have immigrant parents has increased as well, from 13 percent in 1994 to 18 percent in 2006. In 2006, the share of children with immigrant parents was slightly higher among children ages 0 to 4 (25 percent) than among older children (22 percent).

**TABLE 1. Foreign-Born Population in 1994 and 2006**

	1994	2006
<b>Total foreign-born population in the U.S.</b>		
Number	24,512,000	37,290,000
Percent of U.S. population	9.4	12.6
Authorized immigrants		
Number	19,573,000	26,218,000
Percent of foreign-born population	79.8	70.3
Unauthorized immigrants		
Number	4,940,000	11,072,000
Percent of foreign-born population	20.2	29.7
<b>Total foreign-born children ages 0–18 in the U.S.</b>		
Number	3,019,000	3,426,000
Percent of U.S. children	4.1	4.4
Authorized immigrant children		
Number	1,900,000	1,781,000
Percent of all foreign-born children	62.9	52.0
Unauthorized immigrant children		
Number	1,120,000	1,645,000
Percent of all foreign-born children	37.1	48.0
<b>Total native-born children with foreign-born parents ages 0 - 18</b>		
Number	9,551,000	14,368,000
Percent of U.S children	12.9	18.4
Authorized immigrant parents		
Number	7,782,000	10,325,000
Percent of all native-born children with foreign-born parents	81.5	72.0
Unauthorized immigrant parents		
Number	1,485,000	3,629,000
Percent of all native-born children with foreign-born parents	15.5	25.3
Immigrant status of parents unknown		
Number	284,000	414,000
Percent of all native-born children with foreign-born parents	3.0	2.9

*Note:* Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas. Numbers are rounded to the nearest thousand. Percentages are based on the exact estimates. Totals and percentages may not add up due to rounding.

*Source:* Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments provided by the Transfer Income Model, version 3 (TRIM3).

The unauthorized immigrant population grew more quickly than the authorized immigrant population between 1994 and 2006. In fact, between 1998 and 2004, the estimated annual inflow of unauthorized immigrants exceeded the inflow of authorized immigrants<sup>32</sup> (Passel and Cohn,

<sup>32</sup> This trend has reversed since due to slower growth of the unauthorized immigrant population since 2005 (Passel and Cohn, 2008, 2009)

2008, 2009). Between 1994 and 2006, the number of children of unauthorized immigrants grew faster than the number of children of authorized immigrants. In 1994, 1.5 million native-born children had an unauthorized immigrant parent, representing 16 percent of all native-born children with immigrant parents. In 2006, 3.6 million native-born children had an unauthorized immigrant parent, representing 25 percent of all native-born children with foreign-born parents.<sup>33</sup>

The number of children that are unauthorized immigrants themselves is much smaller—in 2006, there were 1.6 million unauthorized immigrant children among the 3.4 million children who were foreign-born. Unauthorized immigrant children represented 9 percent of all children of immigrants (and 2 percent of all children in the United States) in 2006. Younger children of immigrants are more likely than older children to be born in the United States and less likely to be unauthorized immigrants. In 2006, a smaller share of children of immigrants ages 0 to 4 were unauthorized immigrants, 3 percent, compared with children ages 5 to 18 (12 percent).

Immigrant populations are concentrated in six large states that have been traditional immigrant destinations (California, New York, Texas, Florida, Illinois, and New Jersey), but during the 1990s, the immigrant populations grew rapidly in nearly every state, and most rapidly in many western, mid-western, and southeastern states, some of whom had relatively small immigrant populations before 1990. The six states with the largest immigrant populations saw a substantial increase of 74 percent in the number of children with foreign-born parents between 1990 and 2006, while many of the new high-growth immigrant states, such as North Carolina, Nevada, Georgia, Arkansas, and Nebraska, experienced extraordinary growth rates four to five times as high. The average growth rate in these rapidly growing states was 220 percent. The number of children of immigrants in the other states also grew, though at a relatively slower pace, 78 percent, below the national average of 90 percent.<sup>34</sup>

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<sup>33</sup> Demographers have estimated that unauthorized immigrants are undercounted by about 12.5 percent in these data sources (see Passel and Cohn 2009). Neither the raw CPS-ASEC totals nor the TRIM3 estimates are adjusted for this undercount, so estimates of unauthorized immigrants and their children could reflect the undercount.

<sup>34</sup> Urban Institute analysis of the 1990 U.S. Census of Population and Housing, 5 percent sample and 2005 and 2006 U.S. Census Bureau American Community Surveys.

As previously noted, unauthorized immigrants are ineligible for TANF, SNAP, and several other means tested federal benefit programs (Fix and Passel 2002). Although all authorized immigrant children had their SNAP eligibility restored in 2003, there remains significant confusion over the complicated food stamp eligibility rules for noncitizens (Henderson, Capps, and Finegold 2009). Participation in SNAP and similar programs remains lower for children of immigrants—even among those who are eligible U.S. citizens—than for children of native-born parents (Capps, Fix, and Henderson 2009). Immigrant parents, especially those who are unauthorized, often misunderstand complex program eligibility rules and participation procedures, and fear applying for benefits even for citizen children, due to concerns about potential arrest or adverse impacts on immigration or naturalization applications (Holcomb et al. 2003; Rodriguez, Hagan, and Capps 2004).

WIC and NSLP include no such bars on noncitizen participation, and their application procedures are far less complex than those for SNAP or TANF. Moreover, applications are taken at hospitals, health clinics, and schools—locations that provide much greater access to noncitizens than welfare and food stamp offices (Holcomb et al. 2003). The lack of access barriers in WIC and NSLP generally may lead to much higher take-up rates of the eligible population for these programs and may lead to increased growth of the unauthorized immigrant population in these two programs.

Thus, immigration and economic conditions may be leading to changes in WIC and NSLP use, and the extent to which these demographic and economic factors are affecting eligibility and participation is addressed in this study.

## DATA AND METHODS

Eligibility and participation estimates in the report are based on output from the TRIM3 microsimulation model, which the Urban Institute maintains and develops with primary funding from the Assistant Secretary for Planning and Evaluation, Department of Health and Human Services.<sup>35</sup> The input data for TRIM3 come from CPS-ASEC, which is collected each year in March. The CPS-ASEC provides extensive data on income, employment, and demographic characteristics; the survey also collects data on participation in public programs including TANF, SNAP, Medicaid, WIC, and NSLP. Appendices A and B provide additional detail on the underlying assumptions of estimates and the micro-simulation model used.

We analyze CPS-ASEC data for NSLP eligibility and participation for 1994 through 2006 and for WIC for 1997 through 2006. The public use CPS-ASEC data have included NSLP items since the March 1980 survey. But TRIM3 first developed immigrant status assignments for the foreign-born population in the March 1995 (CY 1994) CPS-ASEC, and thus 1994 is the first year of data available for our analysis. The CPS-ASEC has included WIC items since March 2001 (CY 2000) and we were also able to analyze data on WIC participation that were collected on an experimental basis in the March 1998, 1999, and 2000 CPS-ASEC surveys, providing data on CY 1997 to 1999.

Categorical eligibility for WIC infants, older children ages 1 to 4, and mothers of infants is modeled in TRIM3. Mothers of infants are categorically eligible for twelve months postpartum if they breastfeed, and for six months if they do not. Women are also categorically eligible if they are pregnant. In this report, we exclude pregnant women from the analyses due to data restrictions (pregnancy is not indicated on the CPS-ASEC). Thus all analyses for adult women in WIC is for mothers who are breastfeeding or postpartum. Additionally, we combine infants and children into one category of children ages 0 to 4 due to insufficient sample sizes to examine infants and children separately.

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<sup>35</sup> For additional information on TRIM3, see <http://trim3.urban.org/T3Technical.php>.



Being deemed at “nutritional risk” is an additional requirement for WIC benefits. TRIM3 does not model the nutritional risk criteria for WIC eligibility because CPS-ASEC does not provide information on nutritional status of individuals. However, women and children who are otherwise eligible for WIC could be certified to be at nutritional risk based on an inadequate diet when no other risk criteria are present (Bitler, et al. 2003). USDA program staff suggested that few people who meet the other eligibility criteria are excluded on this basis.

To receive free or reduced-price lunches from NSLP, individuals must be participating in elementary or secondary school and meet the requirement for either income or adjunctive eligibility. We approximate this restriction by simulating NSLP eligibility for children in the age range of 5 to 18.<sup>36</sup> This is the same age range that the CPS-ASEC uses to define the universe for its school lunch questions.

Income eligibility for WIC is based on monthly family income at or below 185 percent of FPL. Children are eligible for free lunches if their monthly family income is at or below 130 percent of FPL, and for reduced price lunches if monthly family income is at or below 185 percent of FPL. To determine income-eligibility and benefits, the TRIM3 model acts as a caseworker would, applying state and national program rules to the simulated record of monthly income and employment. Participation in one program can confer eligibility in another program, as TANF, SNAP, and Medicaid do for WIC, and TANF and SNAP do for NSLP.

We modeled WIC and NSLP participation, among those simulated as eligible by TRIM3, with SAS code developed specifically for this project. The code uses information from the simulation of eligibility and from the administrative data for each year, state, and participant group (e.g., mothers of infants). Our goal in modeling participation decisions was to produce a simulated caseload that comes close to the state and national targets from the administrative data and accurately captures the characteristics of program participants. Appendices A and B provide additional detail on the underlying assumptions of the estimates.

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<sup>36</sup> Excluding students no longer in school based on the survey data does not affect the distribution of participants across the immigrant status groups (see Appendix F).

The CPS collects information on nativity and citizenship but not on the immigrant status of immigrants. One of the essential components of TRIM3 is the assignment of immigrant status to immigrants in the CPS data. The methodology for these imputations, developed at the Urban Institute by Jeffrey Passel and Rebecca Clark, is explained in more detail in Appendix C.

## TREND ANALYSES

The trend analyses presented in this report include estimated eligibility and participation trends for WIC between 1997 and 2006 and for NSLP between 1994 and 2006. Trends in WIC eligibility and participation are examined for two groups: (1) children (ages 0 to 4) and (2) postpartum and breastfeeding mothers.<sup>37</sup> For NSLP, we examined two groups of eligible and participating children ages 5 to 18: (1) those eligible for Free Lunches and (2) those eligible for reduced-price meals. Trends among children are examined by their own immigrant status and the immigrant status of their parents. Trends among WIC mothers are examined by their own immigrant status only. The methodology for these estimates is explained in more detail in Appendix A for the WIC program and Appendix B for NSLP.

### *WIC*

Eligible Children. We estimate that the number of children ages 0 to 4 eligible for WIC declined steadily between 1997 and 2000 and increased from 2001 through 2006. There were 9.5 million children eligible for WIC in 1997 and their number increased to 10.2 million in 2006 (Figure 3, Table 2).

The number of eligible native-born children with native-born parents increased over the study period. In 1997, there were 7.2 million native-born children with native-born parents eligible for WIC. In 2006, the number eligible increased to 7.3 million—a 1 percent increase.<sup>38</sup>

The number of children of immigrants eligible for WIC increased by more than the number of native-born children with native-born parents. Between 1997 and 2006, an additional half-million native-born children with unauthorized immigrant parents became eligible for WIC—an increase of 91 percent. This group represents the largest increase in WIC eligibles between 1997 and 2006, with 549,000 eligible in 1997 and 1.1 million eligible in 2006. The number of native-born children with authorized immigrant parents eligible for WIC also increased from 1997 to

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<sup>37</sup> In this and the next sections, we use the term “children” to include infants and children ages 0 to 4. We combine infants and children into one group due to insufficient sample sizes to examine them separately.

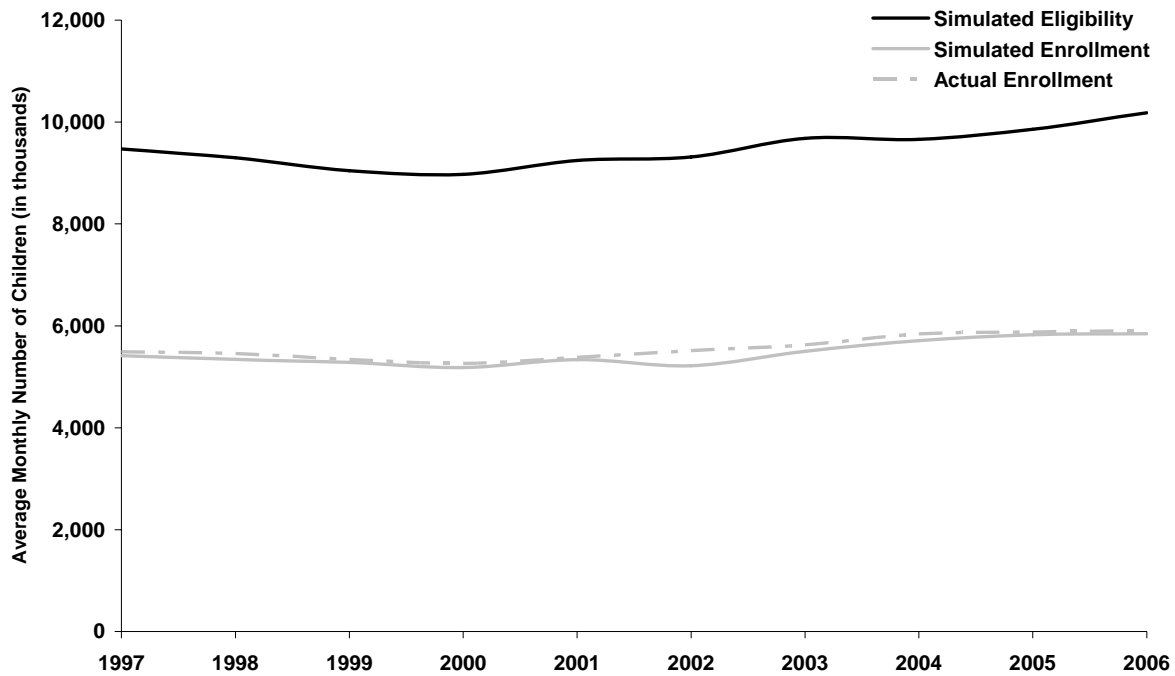
<sup>38</sup> Eligibility and participation estimates presented in the tables and figures in this section are rounded to the nearest thousand. Percentages and percent changes are based on the exact numbers.

2006—from 1.4 to 1.5 million, an 8 percent increase. Fewer native-born children with mixed-status immigrant parents (20,000) and native-born children with foreign-born parents of unknown immigrant status (1,000) were eligible for WIC in 2006 compared with 1997, though with small sample sizes, it is difficult to determine if these are meaningful differences.

Though not as large in magnitude, the number of foreign-born children eligible for WIC increased as well. From 1997 to 2006, the number of unauthorized immigrant children eligible for WIC increased by 62 percent from 70,000 to 113,000. The number of authorized immigrant children eligible for WIC increased from 62,000 to 67,000—an 8 percent increase.

Turning to population shares, children with foreign-born parents comprised 24 percent of the total child population eligible for WIC in 1997; in 2006, their share rose to 28 percent (Figure 4). Most of this shift was due to native-born children with unauthorized immigrant parents, who represented 6 percent of eligibles in 1997 and 10 percent in 2006. In contrast, children with native-born parents comprised 76 percent of the total child population eligible for WIC in 1997; their share declined to 72 percent in 2006.

**FIGURE 3. Number of Children Ages 0–4 Eligible and Participating in WIC, 1997–2006**



*Notes:* Simulated eligibility and participation are based on TRIM3. Actual participation is based on FNS administrative data. Children under age 5, with family incomes at or below 185 percent of the federal poverty level or who are eligible for SNAP, Medicaid, or TANF, and who are at nutritional risk are eligible for WIC.

*Source:* TRIM3 simulations of CPS data for 1998 - 2007 and WIC administrative data for 1997 - 2006.

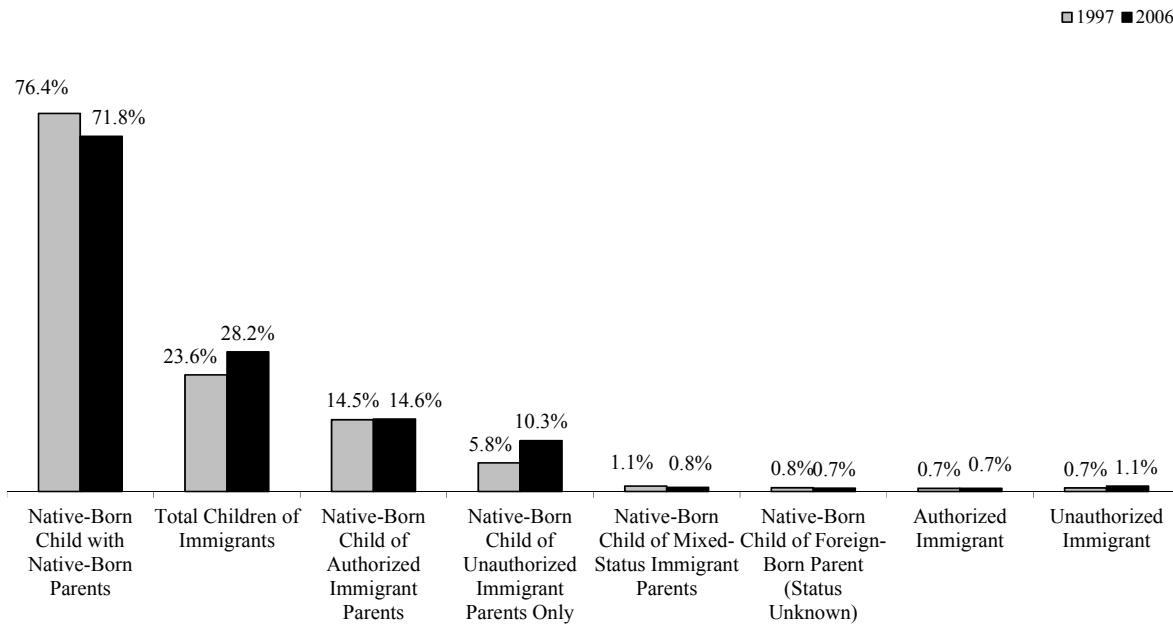
**TABLE 2. Number and Percent of WIC Eligibles by Immigrant Status Group: Children Age 0 to 4 (weighted)**

	Total Children Eligible for WIC		Native-Born Child with Foreign-Born Parents										Foreign-Born Child			
			Native-Born Children with Native-Born Parents		Authorized immigrant parents Only		Unauthorized immigrant parents Only		Unauthorized and Authorized Immigrant Parents		Immigrant Status of Parents Unknown		Authorized Immigrant		Unauthorized Immigrant	
	Unweighted sample	Weighted population (1000s)	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%
1997	7,274	9,471	7,238	76.4%	1,374	14.5%	549	5.8%	105	1.1%	73	0.8%	62	0.7%	70	0.7%
1998	6,647	9,298	6,982	75.1%	1,403	15.1%	572	6.2%	108	1.2%	75	0.8%	96	1.0%	61	0.7%
1999	7,558	9,044	6,900	76.3%	1,180	13.0%	608	6.7%	89	1.0%	109	1.2%	75	0.8%	84	0.9%
2000	6,303	8,975	6,691	74.6%	1,257	14.0%	642	7.2%	100	1.1%	99	1.1%	88	1.0%	98	1.1%
2001	10,271	9,246	6,769	73.2%	1,392	15.1%	730	7.9%	89	1.0%	93	1.0%	105	1.1%	68	0.7%
2002	11,118	9,315	6,928	74.4%	1,313	14.1%	726	7.8%	86	0.9%	107	1.1%	77	0.8%	76	0.8%
2003	11,205	9,682	7,143	73.8%	1,354	14.0%	872	9.0%	53	0.5%	89	0.9%	72	0.7%	99	1.0%
2004	8,910	9,661	6,973	72.2%	1,382	14.3%	919	9.5%	62	0.6%	110	1.1%	79	0.8%	136	1.4%
2005	9,249	9,859	7,148	72.5%	1,426	14.5%	916	9.3%	81	0.8%	105	1.1%	62	0.6%	121	1.2%
2006	10,236	10,182	7,308	71.8%	1,490	14.6%	1,048	10.3%	85	0.8%	72	0.7%	67	0.7%	113	1.1%

**Note:** Children include children ages 0 to 4. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas. Weighted numbers are rounded to the nearest thousand. Percentages are based on the exact estimates. Totals and percentages may not add up due to rounding.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**FIGURE 4. Share of Children Ages 0–4 Eligible for WIC, by Immigrant Status Groups, 1997–2006**



**Note:** Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**Participating Children.** Like the number of children *eligible* for WIC, the number of children *participating* in WIC declined from 1997 through 2000, and then increased fairly steadily from 2001 through 2006. In 1997 there were 5.4 million children ages 0 to 4 participating in WIC and 5.8 million were participating in 2006 (Figure 3, Table 3).

As with trends in eligibility, we estimate that the largest growth in numbers of children participating in WIC was among native-born children with foreign-born parents. In 2006, the WIC program served over a half-million (553,000) more children in this category than it did in 1997. Within this group, native-born children with unauthorized immigrant parents grew the fastest. In 1997, the program served 309,000 children in this category; by 2006, the program served over twice as many (625,000). There was also growth within the native-born children

groups with authorized and mixed-status immigrant parents. The number of children with authorized immigrant parents grew by 237,000 participants—a 32 percent increase—and the number of children with mixed-status immigrant parents grew by 2,000—a 4 percent increase.

The WIC program also saw an increase (24,000) in the number of foreign-born children participating between 1997 and 2006. Most of this growth was among unauthorized immigrant children. In 2006, 53,000 unauthorized immigrant children participated in WIC, up from 35,000 in 1997. The number of authorized immigrant children grew from 32,000 to 38,000 over the same period.

In contrast to trends among children of immigrants, participation among native-born children with native-born parents declined. In 1997 the program served 4.2 million such children, and in 2006 the program served 4.1 million.

In total, participation of children of immigrants rose by 577,000 from 1997 to 2006, while participation among native-born children with native-born parents declined by 144,000. In 1997, children of immigrants (both native- and foreign-born children) represented 22 percent of all WIC participants, with native-born children with native-born parents representing 78 percent (Figure 5). In 2006, children with foreign-born parents made up 31 percent of WIC participants, with the remaining 69 percent composed of native-born children with native-born parents. As with the trends among eligibles, the major driver of this shift came from native-born children with unauthorized immigrant parents, who represented 6 percent of participants in 1997 and 11 percent in 2006, and from native-born children with authorized immigrant parents (14 percent of participants in 1997 and 17 percent in 2006).



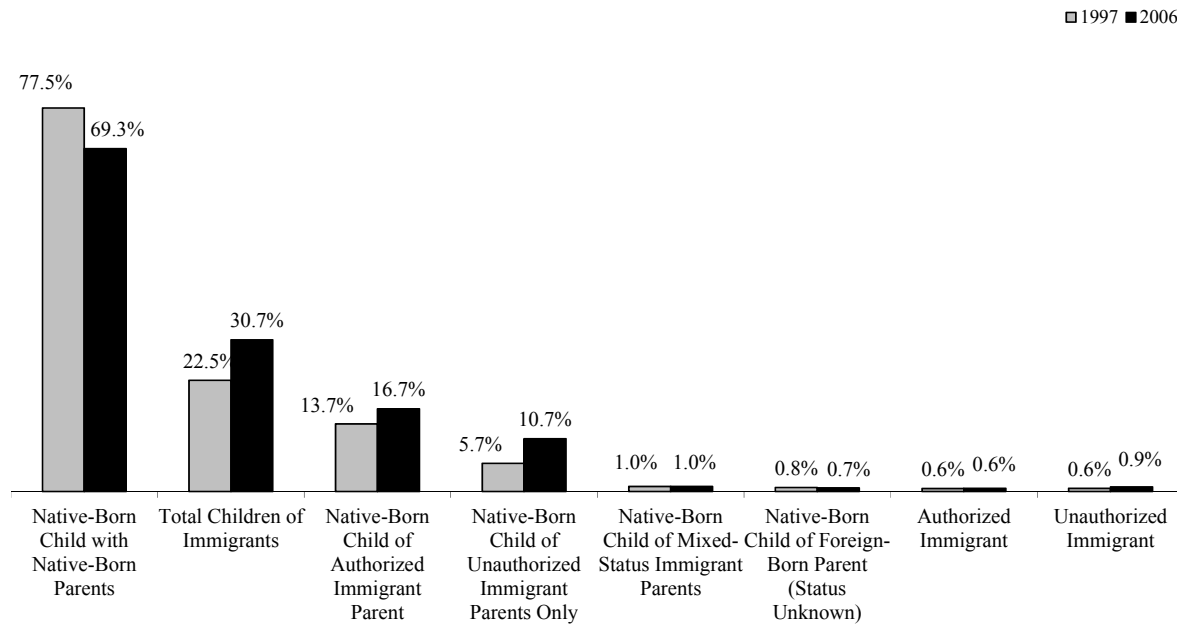
**TABLE 3. Number and Percent of WIC Participants by Immigrant Status Group: Children Age 0 to 4 (weighted)**

	Total Children Participating in WIC		Native-Born Children with Native-Born Parents		Native-Born Child with Foreign-Born Parents								Foreign-Born Child			
					Authorized immigrant parents Only		Unauthorized immigrant parents Only		Unauthorized and Authorized Immigrant Parents		Immigrant Status of Parents Unknown		Authorized Immigrant		Unauthorized Immigrant	
	Unweighted sample	Weighted population (1000s)	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%
1997	4,159	5,414	4,197	77.5%	741	13.7%	309	5.7%	56	1.0%	43	0.8%	32	0.6%	35	0.6%
1998	3,674	5,342	4,008	75.0%	840	15.7%	325	6.1%	51	1.0%	43	0.8%	45	0.9%	29	0.5%
1999	4,539	5,285	3,971	75.1%	722	13.7%	390	7.4%	55	1.0%	65	1.2%	46	0.9%	37	0.7%
2000	3,764	5,182	3,764	72.6%	767	14.8%	433	8.3%	64	1.2%	53	1.0%	38	0.7%	64	1.2%
2001	5,743	5,339	3,827	71.7%	886	16.6%	433	8.1%	58	1.1%	52	1.0%	53	1.0%	29	0.5%
2002	6,400	5,217	3,787	72.6%	781	15.0%	454	8.7%	58	1.1%	52	1.0%	40	0.8%	43	0.8%
2003	6,499	5,500	3,979	72.4%	836	15.2%	518	9.4%	32	0.6%	47	0.9%	41	0.7%	46	0.8%
2004	5,202	5,710	4,074	71.3%	843	14.8%	583	10.2%	38	0.7%	61	1.1%	45	0.8%	66	1.2%
2005	5,386	5,826	4,135	71.0%	905	15.5%	580	10.0%	48	0.8%	68	1.2%	27	0.5%	63	1.1%
2006	5,643	5,848	4,053	69.3%	978	16.7%	625	10.7%	59	1.0%	42	0.7%	38	0.6%	53	0.9%

**Note:** Children include children ages 0 to 4. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas. Weighted numbers are rounded to the nearest thousand. Percentages are based on the exact estimates. Totals and percentages may not add up due to rounding.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**FIGURE 5. Share of Children Ages 0–4 Participating in WIC, by Immigrant Status, 1997–2006**



**Notes:** Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

For both children of immigrants and children with native-born parents, we find their share of participants to be generally comparable to their share of eligible children. For instance, we find that unauthorized immigrant children made up 1.1 percent of all children eligible for WIC and 0.9 percent of all children participating in 2006 (Table 4). Native-born children with authorized immigrant parents make up a slightly higher proportion of WIC participants (16.7 percent) compared with their share of the eligible population (14.6 percent). In contrast, native-born children with native-born parents make up a slightly lower proportion of participants (69.3 percent) compared with their share of the eligible population (71.8 percent).

**TABLE 4. Percent of WIC Eligibles and Participants by Immigrant Status Group in 2006: Children Age 0 to 4 (weighted)**

	% Eligible	% Participating
Native-born Child, Native-born Parents	71.8%	69.3%
Native-born Child, Authorized immigrant parents	14.6%	16.7%
Native-born Child, Unauthorized immigrant parents	10.3%	10.7%
Native-born Child, Mixed-Status Parents	0.8%	1.0%
Native-born Child, Foreign-born Parents (Immigrant Status Unknown)	0.7%	0.7%
Authorized Immigrant Child	0.7%	0.6%
Unauthorized Immigrant Child	1.1%	0.9%

**Notes:** Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

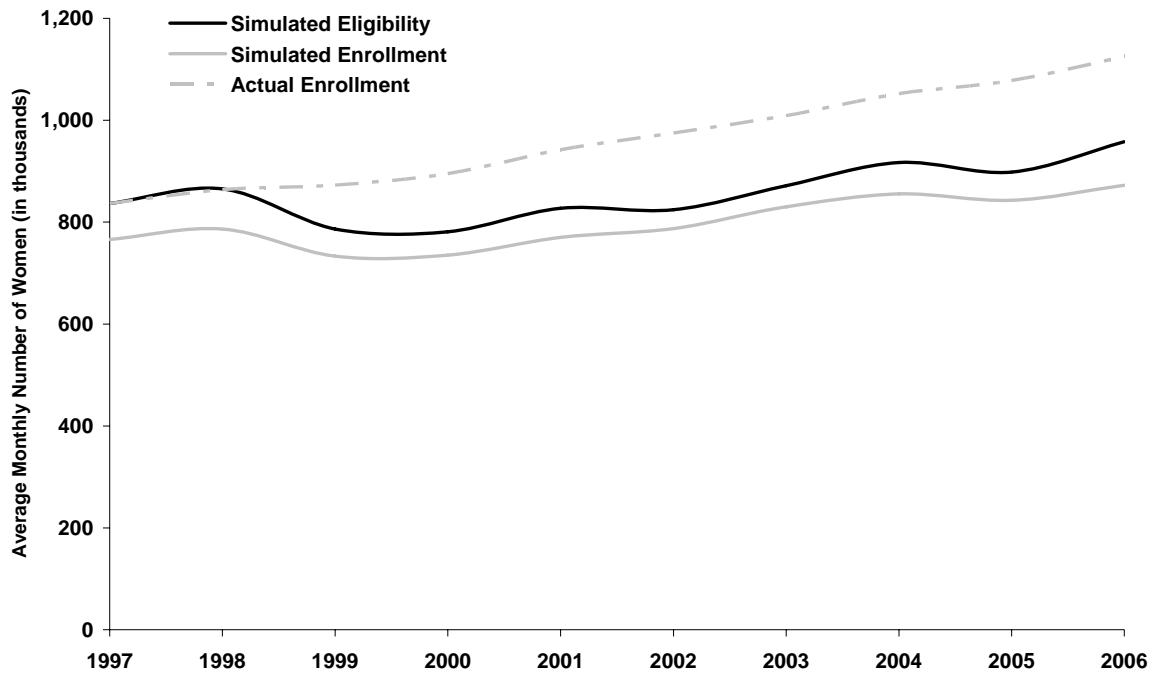
**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

Eligible Mothers. We estimate that the number of breastfeeding and postpartum mothers eligible for WIC has increased fairly steadily over time. The number of mothers eligible for WIC increased slightly from 1997 to 1998, decreased between 1998 and 2000, and fairly steadily increased between 2001 and 2006 (Figure 6). In 1997, 837,000 mothers were eligible for WIC, increasing to 958,000 by 2006 (Table 5). The lower estimate of participants and eligibles than actual participants may be due in part to the CPS lacking information on the age of the child and undercounting infants.<sup>39</sup>

The largest growth in the WIC eligible population came from unauthorized immigrant mothers. In 1997, 60,000 unauthorized immigrant mothers were eligible for WIC, and in 2006, 114,000 were eligible—an 89 percent increase. There was also growth in the eligible population of authorized immigrant mothers, though less so than for unauthorized immigrant mothers. In 1997, 121,000 authorized immigrant mothers were eligible for WIC and their numbers grew to 139,000 by 2006—a 15 percent increase. Similarly, there was growth among native-born mothers. In 1997, 656,000 native-born mothers were eligible for WIC; in 2006, 705,000 were eligible.

<sup>39</sup> See Food and Nutrition Service (2006). WIC Program Coverage: How Many Eligible Individuals Participated in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): 1994 to 2003? Washington, DC: USDA, Food and Nutrition Service.

**FIGURE 6. Number of Breastfeeding and Postpartum Mothers Eligible and Participating in WIC, 1997–2006**



*Notes:* Simulated eligibility and participation are based on TRIM3. Actual participation is based on FNS administrative data. Breastfeeding and postpartum mothers, with family incomes at or below 185 percent of the federal poverty level or who are eligible for SNAP, Medicaid, or TANF, and who are at nutritional risk are eligible for WIC.

*Source:* TRIM3 simulations of CPS data for CY 1998 - 2007 and WIC administrative data for FY 1997 - 2006.

**TABLE 5. Number and Percent of WIC Eligibles by Immigrant Status Group: Women (weighted)**

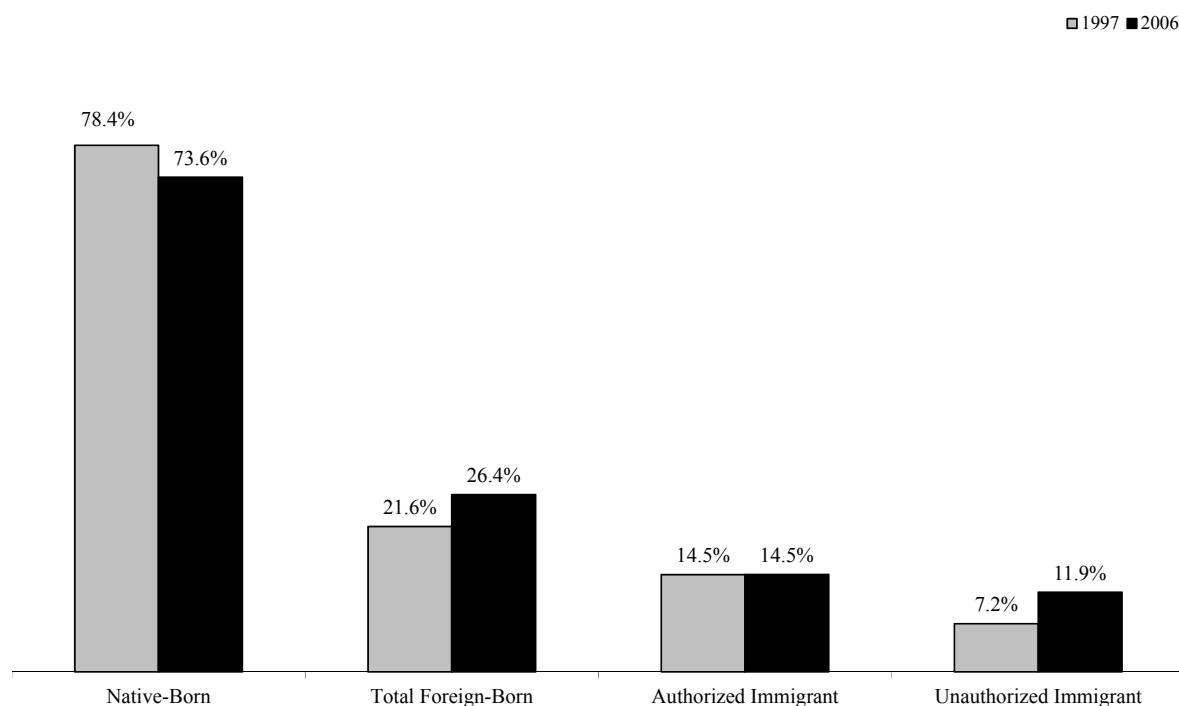
	Total Women Eligible for WIC		Native-Born Women		Foreign-Born Women			
					Authorized Immigrant		Unauthorized Immigrant	
	Unweighted sample	Weighted population (1000s)	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%
1997	727	837	656	78.4%	121	14.5%	60	7.2%
1998	564	866	674	77.8%	121	13.9%	71	8.2%
1999	660	786	625	79.5%	100	12.7%	61	7.8%
2000	546	781	581	74.4%	122	15.6%	78	10.0%
2001	881	827	603	72.9%	139	16.9%	85	10.2%
2002	915	824	615	74.6%	125	15.1%	85	10.3%
2003	983	871	620	71.1%	149	17.1%	103	11.8%
2004	790	917	681	74.3%	139	15.1%	97	10.6%
2005	802	898	676	75.3%	130	14.5%	92	10.2%
2006	911	958	705	73.6%	139	14.5%	114	11.9%

**Note:** Adult Women includes postpartum, and breastfeeding women only, not pregnant women. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas. Weighted numbers are rounded to the nearest thousand. Percentages are based on the exact estimates. Totals and percentages may not add up due to rounding.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

With the growth in the eligible population of unauthorized immigrant mothers came an increase in their share of the eligible population. In total, the foreign-born population of mothers increased between 1997 and 2006 from 22 percent to 26 percent; all of this growth was attributable to the unauthorized immigrant eligible population, which grew from 7 percent in 1997 to 12 percent in 2006 (Figure 7). In contrast, the native-born share of the eligible population declined from 78 percent in 1997 to 74 percent in 2006.

**FIGURE 7. Share of Breastfeeding and Postpartum Mothers Eligible for WIC, by Immigrant Status Group, 1997–2006**



**Notes:** Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

Participating Mothers. We estimate that participation in WIC among breastfeeding and postpartum mothers followed trends in eligibility closely (Figure 6). From 1997 to 1998, participation increased, then fell in 1999, and then began slowly growing between 2000 and 2006. In 1997, we estimate that 766,000 mothers participated in WIC and 873,000 participated in 2006 (Table 6). In contrast, actual program participation increased steadily between 1997 and 2006. As mentioned previously, this discrepancy may be due to the CPS undercounting infants.

As with trends amongst eligible mothers, we find that the number of unauthorized immigrant mothers participating in WIC grew faster than the other groups. In 1997, 53,000 unauthorized immigrant mothers participated in WIC, doubling to 106,000 in 2006. Participation among

authorized immigrant mothers also grew—by 23 percent—from 110,000 in 1997 to 134,000 in 2006. Native-born mothers experienced growth in participation as well, though their growth rate was the slowest—5 percent. In 2006, 632,000 mothers participated in WIC, up from 604,000 in 1997.

**TABLE 6 . Number and Percent of WIC Participants by Immigrant Status Group: Women (weighted)**

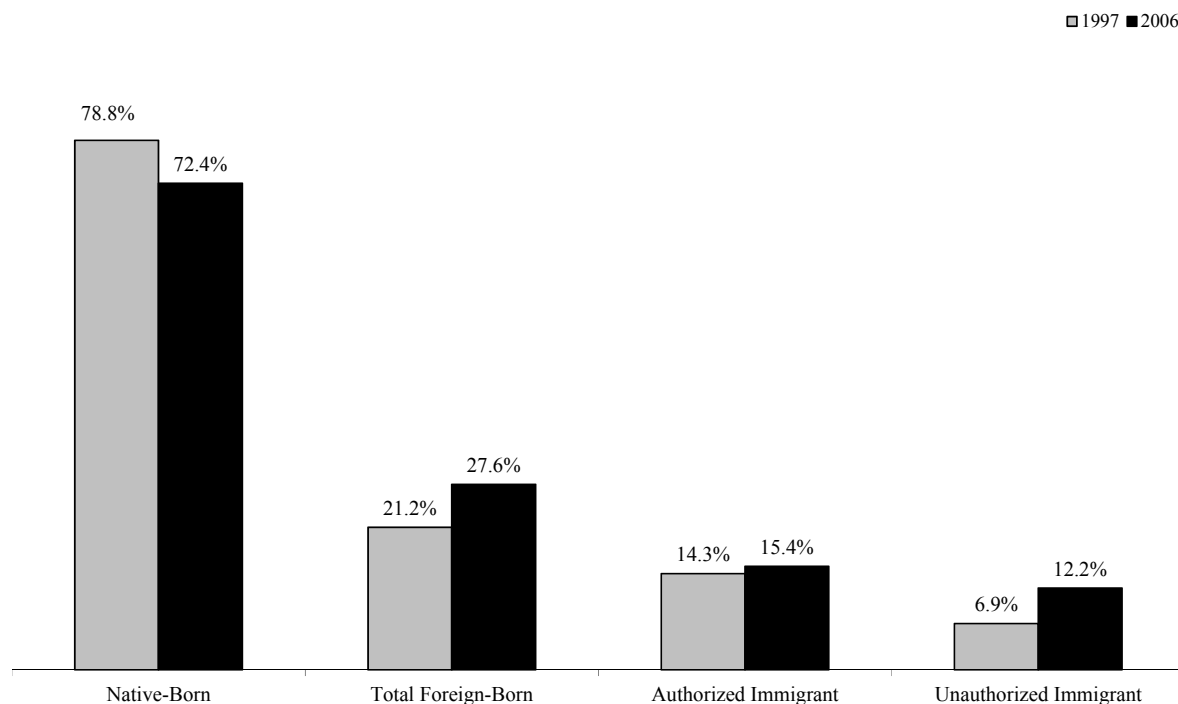
	Total Women Participating in WIC		Native-Born Women		Foreign-Born Women			
					Authorized Immigrant		Unauthorized Immigrant	
	Unweighted sample	Weighted population (1000s)	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%
1997	649	766	604	78.8%	110	14.3%	53	6.9%
1998	515	787	611	77.7%	113	14.3%	63	8.0%
1999	627	733	576	78.6%	98	13.4%	58	8.0%
2000	516	735	542	73.7%	115	15.7%	78	10.6%
2001	805	770	555	72.0%	135	17.5%	81	10.5%
2002	875	787	582	74.0%	122	15.4%	83	10.6%
2003	941	830	592	71.3%	141	17.0%	97	11.7%
2004	743	855	633	74.0%	132	15.4%	90	10.6%
2005	743	843	627	74.4%	126	15.0%	90	10.7%
2006	822	873	632	72.4%	134	15.4%	106	12.2%

**Note:** Adult Women includes postpartum, and breastfeeding women only, not pregnant women. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas. Weighted numbers are rounded to the nearest thousand. Percentages are based on the exact estimates. Totals and percentages may not add up due to rounding.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

With this growth in the foreign-born population, particularly among unauthorized immigrant mothers, the shares of each group shifted between 1997 and 2006. In 1997, 21 percent of WIC mothers were foreign-born; this share rose to 28 percent in 2006 (Figure 8). Unauthorized immigrant mothers comprised 7 percent of participants in 1997 and 12 percent in 2006. Authorized immigrant mothers made up 14 percent of participants in 1997 and 15 percent in 2006. In contrast, native-born participants experienced a decrease in their share of the participating population, from 79 percent in 1997 to 72 percent in 2006.

**FIGURE 8. Share of Breastfeeding and Postpartum Mothers Participating in WIC, by Immigrant Status Group, 1997 - 2006**



**Notes:** Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

While unauthorized immigrant mothers were the fastest growing segment of the eligible and participating populations, it is important to note that their participation rates were comparable to their share of the eligible population. In 2006, unauthorized immigrant mothers made up 12 percent of the eligible population and 12 percent of participants (Table 7). The same finding holds for authorized immigrant and native-born mothers, each group comprising similar shares of eligibles and participants.



**TABLE 7. Percent of WIC Eligibles and Participants by Immigrant Status Group in 2006: Women (weighted)**

	% Eligible	% Participating
Native-born	73.6%	72.4%
Authorized Immigrant	14.5%	15.4%
Unauthorized Immigrant	11.9%	12.2%

**Notes:** Women include postpartum and breastfeeding women only. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

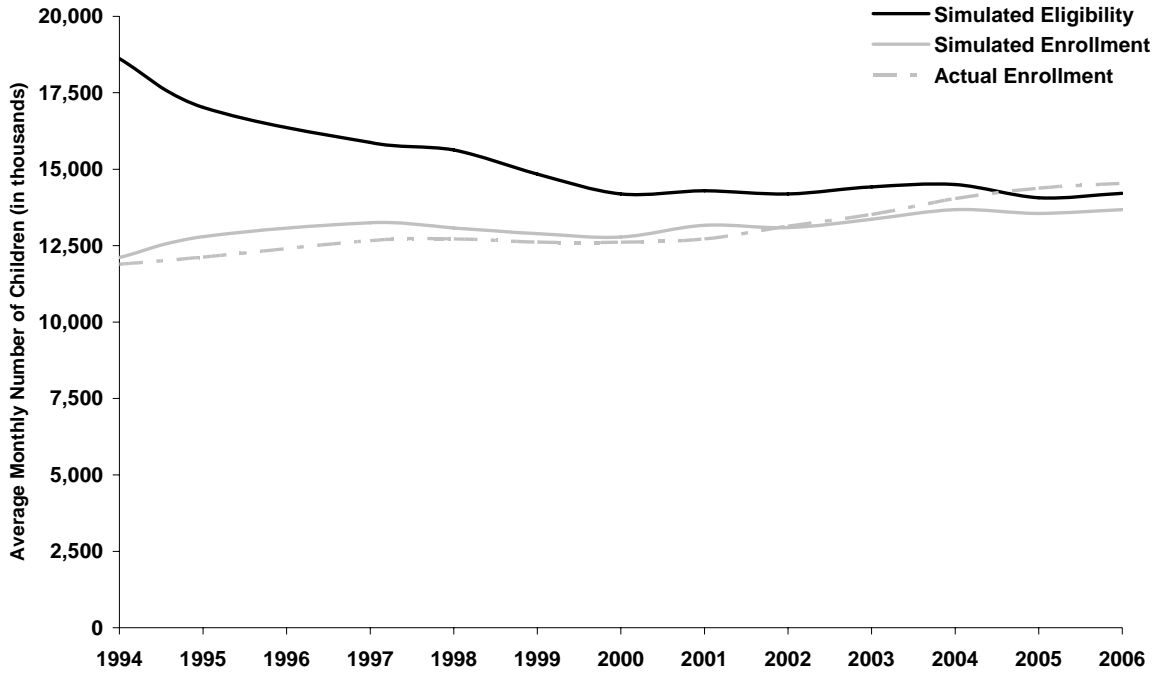
**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

## NSLP

Children Eligible for Free Lunches. Between 1994 and 2000, we estimate that the number of children ages 5 to 18 eligible for free lunches declined—from 18.6 million in 1994 to 14.2 million in 2000 (Figure 9, Table 8). From 2001 through 2006 the number of eligible children remained relatively steady at 14.2 million.

Between 1994 and 2006, there were shifts in those eligible for Free Lunches by immigrant status groups, with children with native-born parents declining in number and share but children of immigrants increasing. In 2006, 10.3 million native-born children with native-born parents were eligible compared with 14.8 million in 1994—a decline of 4.6 million, or 31 percent. In contrast, the number of unauthorized immigrant children increased from 590,000 in 1994 to 622,000 in 2006. Similarly, native-born children with unauthorized immigrant parents grew from 342,000 in 1994 to 862,000 in 2006—a 152 percent increase. There was also an increase in the number eligible among native-born children with mixed-status immigrant parents (51,000 in 1997 and 84,000 in 2006). Other foreign-born groups saw decreases in the number of children eligible for Free Lunches. Native-born children with authorized immigrant parents decreased in number by 36,000 from 1994 to 2006. Likewise, the number of authorized immigrant children declined by nearly half—from 942,000 in 1994 to 522,000 in 2006. The number of native-born children with foreign-born parents of unknown immigrant status increased from 143,000 in 1994 to 185,000 in 2006.

**FIGURE 9. Number of Children Eligible and Participating in NSLP: Free Lunches, 1994–2006**



*Notes:* Simulated eligibility and participation are based on TRIM3. Actual participation is based on FNS administrative data. The numbers for 1996 are interpolated. Children attending schools that offer the NSLP and with family incomes at or below 130 percent of the federal poverty level or who are eligible for SNAP or TANF are eligible for free lunches.

*Source:* TRIM3 simulations of CPS data for 1995 - 2007 and WIC administrative data for 1994 - 2006.

**TABLE 8. Number and Percent of NSLP Eligibles by Immigrant Status Group: Free Lunches (weighted)**

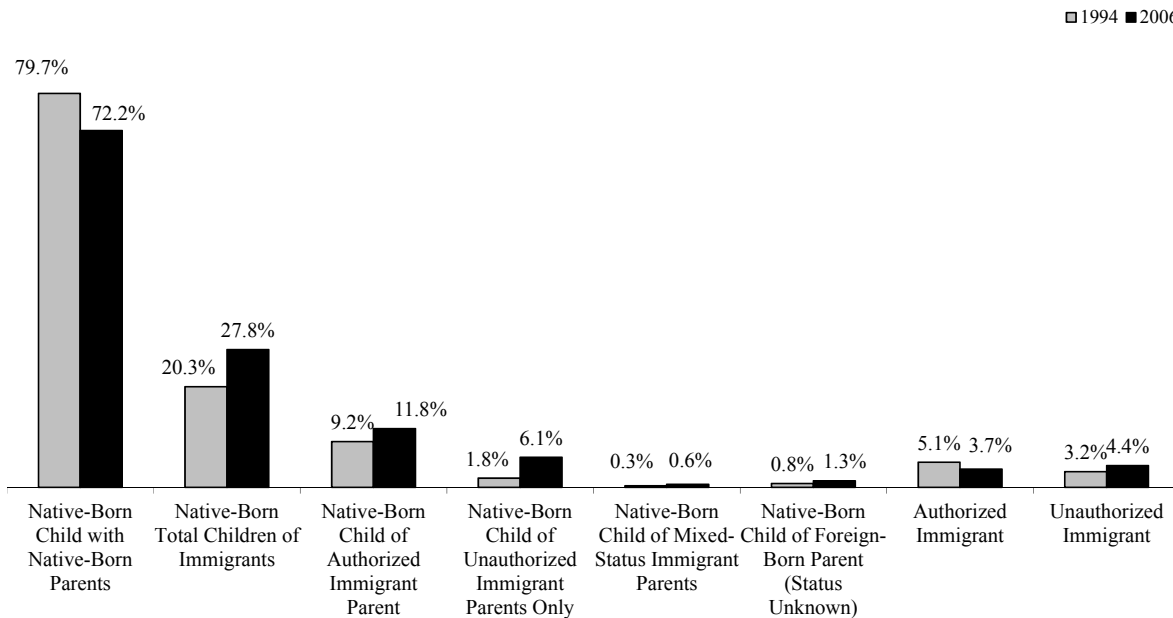
	Total Children Eligible for Free Lunches		Native-Born Children with Native-Born Parents		Native-Born Child with Foreign-Born Parents								Foreign-Born Child			
					Authorized immigrant parents Only		Unauthorized immigrant parents Only		Unauthorized and Authorized Immigrant Parents		Immigrant Status of Parents Unknown		Authorized Immigrant		Unauthorized Immigrant	
	Unweighted sample	Weighted population (1000s)	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%
1994	13,822	18,618	14,831	79.7%	1,719	9.2%	342	1.8%	51	0.3%	143	0.8%	942	5.1%	590	3.2%
1995	11,479	17,026	13,133	77.1%	1,719	10.1%	421	2.5%	98	0.6%	159	0.9%	902	5.3%	594	3.5%
1996																
1997	12,011	15,873	11,997	75.6%	1,737	10.9%	477	3.0%	89	0.6%	207	1.3%	789	5.0%	576	3.6%
1998	10,624	15,627	11,795	75.5%	1,797	11.5%	541	3.5%	102	0.7%	160	1.0%	767	4.9%	464	3.0%
1999	10,853	14,839	11,063	74.6%	1,605	10.8%	556	3.7%	87	0.6%	165	1.1%	788	5.3%	576	3.9%
2000	9,910	14,188	10,514	74.1%	1,542	10.9%	632	4.5%	96	0.7%	178	1.3%	640	4.5%	587	4.1%
2001	15,663	14,295	10,447	73.1%	1,698	11.9%	620	4.3%	110	0.8%	168	1.2%	629	4.4%	624	4.4%
2002	16,623	14,194	10,335	72.8%	1,662	11.7%	615	4.3%	93	0.7%	160	1.1%	723	5.1%	604	4.3%
2003	16,748	14,425	10,461	72.5%	1,708	11.8%	775	5.4%	66	0.5%	158	1.1%	574	4.0%	683	4.7%
2004	14,005	14,498	10,549	72.8%	1,586	10.9%	774	5.3%	65	0.4%	170	1.2%	622	4.3%	732	5.0%
2005	14,090	14,069	10,277	73.0%	1,566	11.1%	812	5.8%	72	0.5%	164	1.2%	542	3.9%	636	4.5%
2006	13,916	14,214	10,257	72.2%	1,683	11.8%	862	6.1%	84	0.6%	185	1.3%	522	3.7%	622	4.4%

**Note:** Children include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas. Weighted numbers are rounded to the nearest thousand. Percentages are based on the exact estimates. Totals and percentages may not add up due to rounding.

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These changes in the number of children eligible for free lunches by immigrant status have resulted in substantial shifts in the share of eligible children in immigrant families. In 1994, 20 percent of children eligible for Free Lunches were foreign-born or had foreign-born parents (Figure 10). By 2006, their share had risen to 28 percent. All categories of children of immigrants experienced a growth in their share of the free lunch eligible population from 1994 through 2006 with the exception of authorized immigrant children. Native-born children with unauthorized immigrant parents experienced the largest increase in terms of share—in 1994 they represented 1.8 percent of free lunch eligibles and in 2006 they represented 6.1 percent of free lunch eligibles. As a result, native-born children with native-born parents experienced a decline in their relative share of the free lunch eligible population. In 1994 they represented 80 percent of free lunch eligibles and by 2006 their share had dropped to 72 percent.

**FIGURE 10. Share of Children Eligible for Free Lunches, by Immigrant Status Group, 1994 - 2006**



**Notes:** Children include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

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### Children Participating in Free Lunches.

We estimate that the number of children participating in free lunches increased between 1994 and 1997 from 12.1 to 13.2 million (Figure 9, Table 9). Between 1998 and 2001, the number of children participating in free lunches fluctuated between a low of 12.9 million in 1999 and a high of 13.2 in 2001. From 2002 through 2006, participation in free lunches steadily increased to a high of 13.7 million in 2006.

The largest increase in participation between 1994 and 2006 for free lunches occurred for native-born children with unauthorized immigrant parents. In 1994, 275,000 native-born children with unauthorized immigrant parents participated and in 2006, 833,000 participated—a 203 percent increase. Other native-born children with foreign-born parents experienced increases as well,

though not as dramatic. Native-born children with authorized immigrant parents increased in number from 1.2 to 1.6 million from 1994 to 2006; native-born children with mixed-status immigrant parents increased in number from 35,000 to 81,000; and native-born children with foreign-born parents of unknown immigrant status increased in number from 47,000 to 174,000 .

Foreign-born children also experienced an overall increase in participation from 1994 to 2006. All of the increase was due to unauthorized immigrants, as fewer authorized immigrants participated in 2006 than in 1994. In 1994, 380,000 unauthorized immigrants participated in free lunches. This number rose to 603,000 by 2006. In contrast, 643,000 authorized immigrants were participating in free lunches in 1994 and fewer (509,000) were participating in 2006.

More native-born children with native-born parents participated in Free Lunches in 2006 than in 1994. In 2006, 9.9 million participated, up from 9.5 million in 1994.

**TABLE 9. Number and Percent of NSLP Participants by Immigrant Status Group: Free Lunches (weighted)**

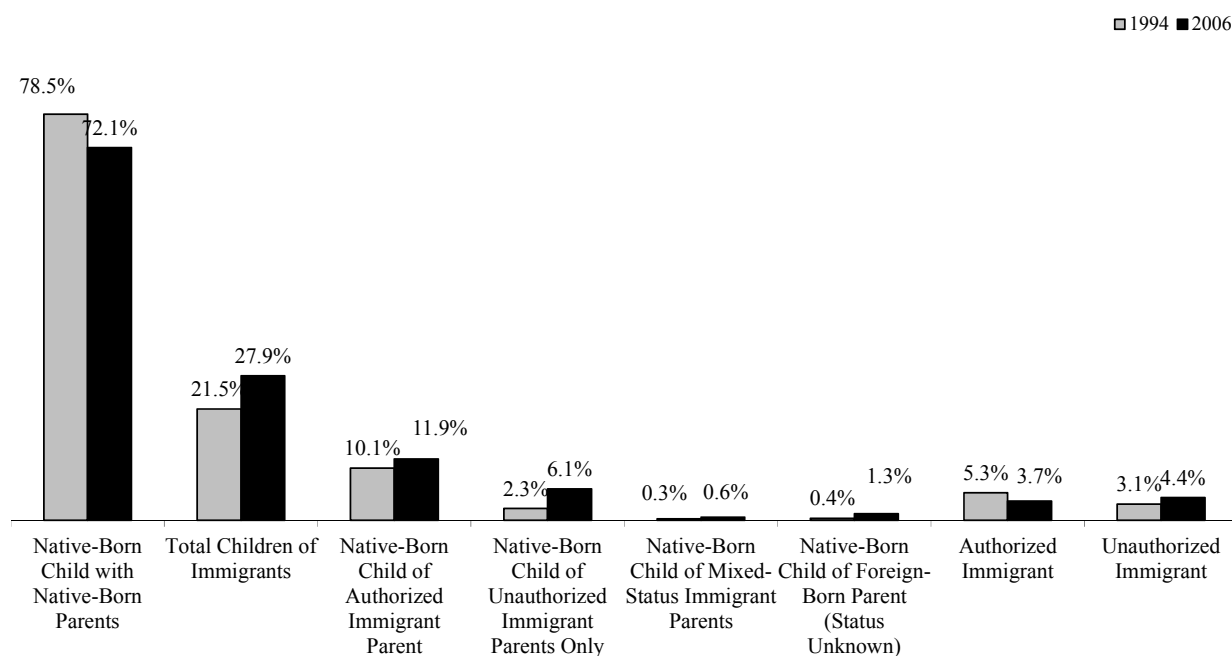
	Total Children Receiving Free Lunches		Native-Born Children with Native-Born Parents		Native-Born Child with Foreign-Born Parents								Foreign-Born Child			
					Authorized immigrant parents Only		Unauthorized immigrant parents Only		Unauthorized and Authorized Immigrant Parents		Immigrant Status of Parents Unknown		Authorized Immigrant		Unauthorized Immigrant	
	Unweighted sample	Weighted population (1000s)	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%
1994	9,245	12,113	9,509	78.5%	1,223	10.1%	275	2.3%	35	0.3%	47	0.4%	643	5.3%	380	3.1%
1995	8,794	12,792	9,786	76.5%	1,333	10.4%	360	2.8%	81	0.6%	95	0.7%	645	5.0%	492	3.8%
1996																
1997	9,819	13,243	10,005	75.6%	1,444	10.9%	403	3.0%	82	0.6%	141	1.1%	670	5.1%	497	3.8%
1998	8,673	13,077	9,826	75.1%	1,547	11.8%	492	3.8%	93	0.7%	107	0.8%	599	4.6%	414	3.2%
1999	9,274	12,888	9,591	74.4%	1,400	10.9%	497	3.9%	78	0.6%	135	1.0%	694	5.4%	493	3.8%
2000	8,840	12,779	9,500	74.3%	1,354	10.6%	589	4.6%	94	0.7%	153	1.2%	545	4.3%	544	4.3%
2001	14,256	13,167	9,626	73.1%	1,559	11.8%	594	4.5%	107	0.8%	139	1.1%	559	4.2%	584	4.4%
2002	15,180	13,088	9,506	72.6%	1,536	11.7%	578	4.4%	87	0.7%	139	1.1%	668	5.1%	573	4.4%
2003	15,411	13,365	9,680	72.4%	1,578	11.8%	742	5.6%	61	0.5%	138	1.0%	525	3.9%	642	4.8%
2004	13,103	13,678	9,931	72.6%	1,514	11.1%	755	5.5%	62	0.5%	151	1.1%	585	4.3%	681	5.0%
2005	13,483	13,555	9,862	72.8%	1,535	11.3%	794	5.9%	70	0.5%	160	1.2%	518	3.8%	615	4.5%
2006	13,355	13,678	9,856	72.1%	1,622	11.9%	833	6.1%	81	0.6%	174	1.3%	509	3.7%	603	4.4%

**Note:** Children include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas. Weighted numbers are rounded to the nearest thousand. Percentages are based on the exact estimates. Totals and percentages may not add up due to rounding.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

The share of children of immigrants participating in free lunches increased from 22 percent of participants in 1994 to 28 percent of participants in 2006 (Figure 11). All groups of children with immigrant parents exhibited increases in their share of participants with the exception of authorized immigrant children. Native-born children with unauthorized immigrant parents experienced the largest relative increase in size from 2 percent of all participants receiving free lunches in 1994 to 6 percent in 2006. In contrast, the share of native-born children with native-born parents receiving free lunches decreased in size from 79 to 72 percent.

**FIGURE 11. Share of Children Participating in Free Lunches, by Immigrant Status Group, 1994 - 2006**



**Notes:** Children include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

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Though it is clear that there has been an increase in children with immigrant parents eligible for and participating in free lunches, we do not find evidence that foreign-born children are



participating at higher rates than native-born children with native-born parents. In 2006, the shares of the eligible and participating populations were very similar if not the same by immigrant category (Table 10). For instance, we estimate that in 2006, unauthorized immigrant children comprised 4.4 of the eligible population and 4.4 percent of participants.

**TABLE 10. Percent of Free Lunch Eligibles and Participants by Immigrant Status Group in 2006 (weighted)**

	% Eligible	% Participating
Native-born Child, Native-born Parents	72.2%	72.1%
Native-born Child, Authorized immigrant parents	11.8%	11.9%
Native-born Child, Unauthorized immigrant parents	6.1%	6.1%
Native-born Child, Mixed-Status Parents	0.6%	0.6%
Native-born Child, Foreign-born Parents (status unknown)	1.3%	1.3%
Authorized Immigrant Child	3.7%	3.7%
Unauthorized Immigrant Child	4.4%	4.4%

**Notes:** Children include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

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### Children Eligible for Reduced-Price Lunches.

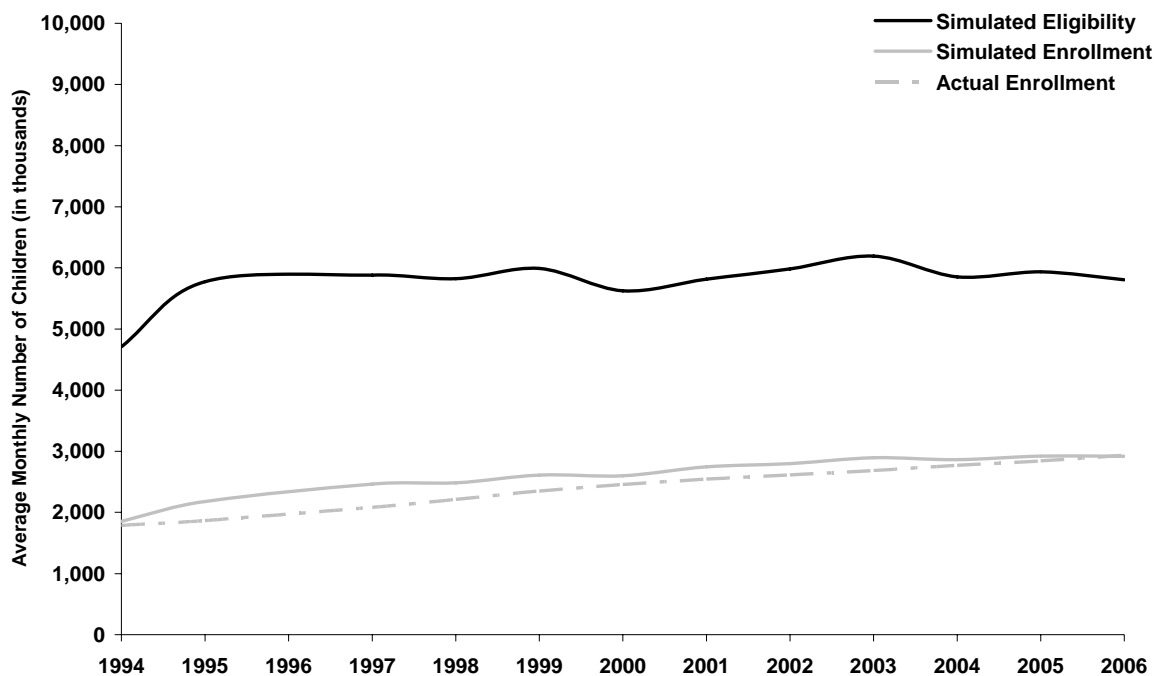
We estimate that the number of children eligible for reduced-price lunches increased from 4.7 million in 1994 to 5.8 million in 2006 (Figure 12, Table 11). The number of eligibles grew between 1994 and 1997, fluctuated between 1998 and 2000, and increased steadily between 2001 and 2006.

The greatest increase among those eligible for reduced-price lunches occurred for native-born children with authorized immigrant parents. From 1994 to 2006, the number of native-born children with authorized immigrant parents rose from 536,000 to 944,000—a 76 percent increase. There was an even faster growth rate amongst native-born children with unauthorized immigrant children, with 101,000 eligible in 1994 and 336,000 eligible in 2006—a three-fold increase. Though smaller in magnitude, other native-born children with foreign-born parents increased in the numbers eligible between 1994 and 2006.

There was also growth in the number of eligibles among foreign-born children. The number of unauthorized immigrant children eligible for reduced-price lunches increased from 153,000 in 1994 to 237,000 in 2006 and the number of authorized immigrant children increased from 160,000 to 224,000 over the same period.

Like the number of children of immigrants, the number of native-born children with native-born parents eligible for reduced-price lunches increased. In 1994, 3.7 million native-born children with native-born parents were eligible for reduced-price lunches. By 2006, this number rose to 4.0 million.

**FIGURE 12. Number of Children Eligible and Participating in NSLP: Reduced-Price Lunches, 1994–2006**



**Notes:** Simulated eligibility and participation are based on TRIM3. Actual participation is based on FNS administrative data. The numbers for 1996 are interpolated. Children attending schools that offer the NSLP and with family incomes between 130 and 185 percent of the federal poverty level are eligible for reduced-price lunches.

**Source:** TRIM3 simulations of CPS data for 1995 - 2007 and WIC administrative data for 1994 - 2006.

**TABLE 11 Number and Percent of NSLP Eligibles by Immigrant Status: Reduced-Price Lunches (weighted)**

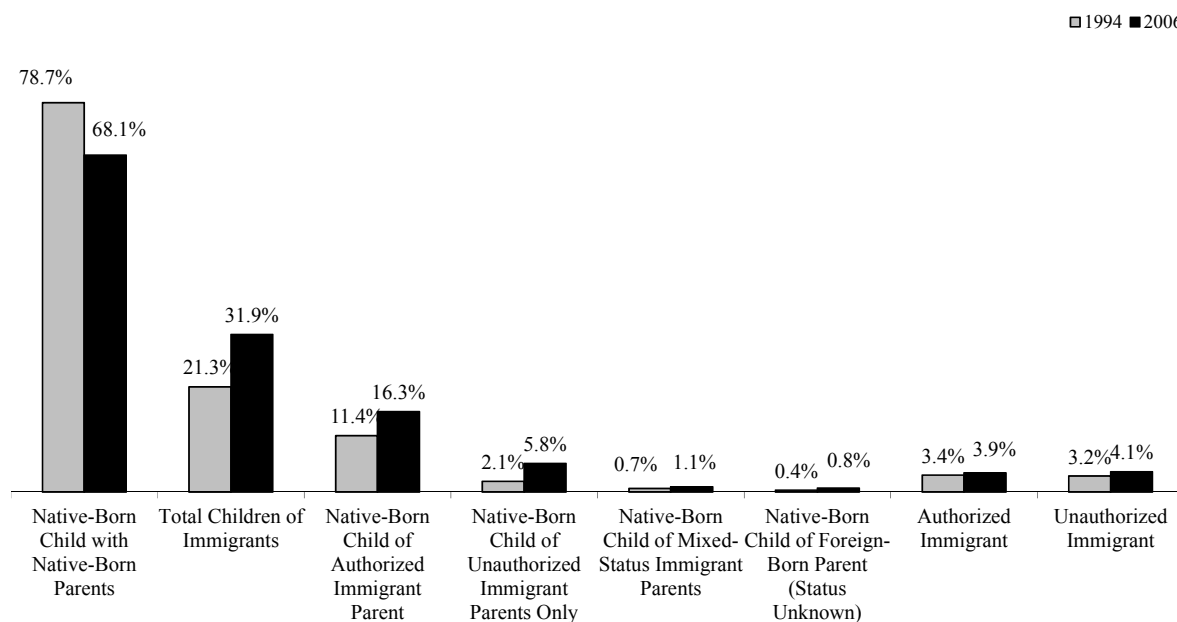
	Total Children Eligible for Reduced-Price Meals		Foreign-Born Child				Native-Born Child with Foreign-Born Parents								Native-Born Children with Native-Born Parents	
			Unauthorized Immigrant		Authorized Immigrant		Unauthorized immigrant parents Only		Unauthorized and Authorized Immigrant Parents		Authorized immigrant parents Only		Immigrant Status of Parents Unknown			
	Unweighted sample	Weighted population (1000s)	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%
1994	3,798	4,706	153	3.2%	160	3.4%	101	2.1%	34	0.7%	535	11.4%	19	0.4%	3,705	78.7%
1995	3,809	5,775	153	2.6%	213	3.7%	144	2.5%	25	0.4%	563	9.7%	21	0.4%	4,656	80.6%
1996																
1997	4,199	5,881	172	2.9%	164	2.8%	166	2.8%	43	0.7%	609	10.3%	28	0.5%	4,699	79.9%
1998	4,023	5,823	137	2.4%	209	3.6%	185	3.2%	38	0.7%	677	11.6%	45	0.8%	4,532	77.8%
1999	4,622	5,989	195	3.3%	180	3.0%	219	3.7%	54	0.9%	730	12.2%	39	0.7%	4,572	76.3%
2000	4,000	5,623	202	3.6%	182	3.2%	231	4.1%	36	0.6%	721	12.8%	40	0.7%	4,210	74.9%
2001	6,724	5,817	236	4.1%	213	3.7%	236	4.1%	69	1.2%	840	14.4%	46	0.8%	4,178	71.8%
2002	7,508	5,985	218	3.6%	215	3.6%	207	3.5%	65	1.1%	858	14.3%	30	0.5%	4,391	73.4%
2003	7,562	6,193	254	4.1%	264	4.3%	273	4.4%	47	0.8%	840	13.6%	36	0.6%	4,479	72.3%
2004	5,944	5,854	268	4.6%	184	3.1%	258	4.4%	45	0.8%	863	14.7%	47	0.8%	4,189	71.6%
2005	6,069	5,937	280	4.7%	196	3.3%	300	5.1%	42	0.7%	898	15.1%	37	0.6%	4,183	70.5%
2006	5,986	5,805	237	4.1%	224	3.9%	336	5.8%	62	1.1%	944	16.3%	46	0.8%	3,956	68.1%

**Note:** Children include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas. Weighted numbers are rounded to the nearest thousand. Percentages are based on the exact estimates. Totals and percentages may not add up due to rounding.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

The shares of children from different immigrant groups eligible for reduced-price lunches shifted between 1994 and 2006. The share of children with immigrant parents increased from 21 to 32 percent of eligibles while the share of children with native-born parents decreased from 79 to 68 percent from 1994 to 2006 (Figure 13). The greatest shift in shares occurred for native-born children of authorized immigrant parents, who increased their relative size from 11 to 16 percent of eligibles.

**FIGURE 13. Share of Children Eligible for Reduced-Price Lunches, by Immigrant Status Group, 1994 - 2006**



**Notes:** Children include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

### Children Participating in Reduced-Price Lunches.

We estimate that the number of children who participated in reduced-price meals increased from 1.9 million in 1994 to 2.9 million in 2006 (Figure 12, Table 12). The numbers of children participating increased consistently between 1995 and 1999. Between 2000 and 2006, the

numbers of children who participated in reduced-price meals fluctuated between a low of 2.6 million in 2000 and a high of 2.9 million in 2005.

In 1994, 243,000 native-born children with authorized immigrants parents were participating, and by 2006, this number had risen to 512,000—a 111 percent increase. Other native-born children with foreign-born parents experienced increases as well. In 1994, 61,000 native-born children with unauthorized immigrant parents participated in reduced-price lunches, more than tripling to 195,000 in 2006. Native-born children with mixed-status immigrant parents increased in number from 17,000 to 35,000, and native-born children with foreign-born parents of unknown immigrant status increased in number from 5,000 to 21,000 over the same period.

The number of foreign-born children participating in reduced-price lunches also increased from 1994 to 2006. Unauthorized immigrant children increased in number from 71,000 to 152,000 and the number of authorized immigrant children increased from 55,000 to 99,000 from 1994 to 2006.

**TABLE 12 Number and Percent of NSLP Participants by Immigrant Status Group: Reduced-Price Lunches (weighted)**

	Total Children Receiving Reduced-Price Meals		Native-Born Children with Native-Born Parents		Native-Born Child with Foreign-Born Parents								Foreign-Born Child			
					Authorized immigrant parents Only		Unauthorized immigrant parents Only		Unauthorized and Authorized Immigrant Parents		Immigrant Status of Parents Unknown		Authorized Immigrant		Unauthorized Immigrant	
	Unweighted sample	Weighted population (1000s)	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%	Number (1000s)	%
1994	1,495	1,854	1,401	75.6%	243	13.1%	61	3.3%	17	0.9%	5	0.3%	55	3.0%	71	3.9%
1995	1,558	2,178	1,648	75.7%	243	11.2%	85	3.9%	13	0.6%	11	0.5%	93	4.3%	86	3.9%
1996																
1997	1,937	2,465	1,875	76.1%	245	9.9%	114	4.6%	28	1.1%	8	0.3%	91	3.7%	104	4.2%
1998	1,882	2,482	1,828	73.6%	319	12.8%	110	4.4%	22	0.9%	10	0.4%	112	4.5%	82	3.3%
1999	2,173	2,612	1,842	70.5%	397	15.2%	142	5.4%	32	1.2%	16	0.6%	95	3.6%	89	3.4%
2000	2,087	2,599	1,803	69.4%	412	15.9%	139	5.4%	27	1.0%	18	0.7%	91	3.5%	109	4.2%
2001	3,310	2,748	1,835	66.8%	459	16.7%	162	5.9%	46	1.7%	19	0.7%	98	3.6%	128	4.7%
2002	3,633	2,797	1,957	70.0%	445	15.9%	123	4.4%	43	1.5%	6	0.2%	112	4.0%	111	4.0%
2003	3,715	2,895	2,025	70.0%	413	14.3%	152	5.3%	34	1.2%	17	0.6%	130	4.5%	123	4.2%
2004	3,048	2,864	1,988	69.4%	446	15.6%	164	5.7%	25	0.9%	17	0.6%	97	3.4%	127	4.4%
2005	3,216	2,922	2,033	69.6%	434	14.9%	179	6.1%	23	0.8%	7	0.2%	88	3.0%	157	5.4%
2006	3,182	2,919	1,904	65.2%	512	17.5%	195	6.7%	35	1.2%	21	0.7%	99	3.4%	152	5.2%

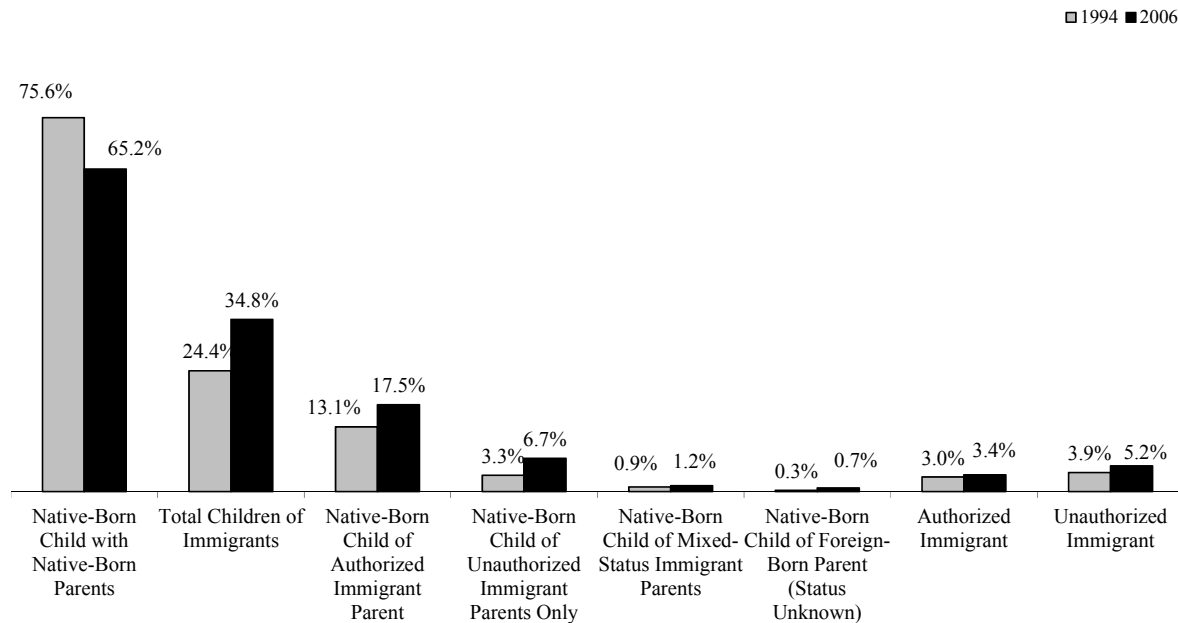
**Note:** Children include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas. Weighted numbers are rounded to the nearest thousand. Percentages are based on the exact estimates. Totals and percentages may not add up due to rounding.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

More native-born children with native-born parents participated in reduced-price lunches in 2006 than in 1994 as well. In 1994, 1.4 million native-born children with native-born parents participated. In 2006, the number of these children increased by 7 percent to nearly 1.9 million.

From 1994 to 2006, the share of reduced-price lunch participants who had immigrant parents increased from 24 to 35 percent and the share of children with native-born parents declined from 76 to 65 percent (Figure 14). All children of immigrants increased their share of participants from 1994 to 2006. Native-born children with authorized immigrants increased the most. In 1994, they represented 13 percent of all reduced-price lunch participants and in 2006 they represented 18 percent.

**FIGURE 14. Share of Children Participating in Reduced-Price Lunches, by Immigrant Status Group, 1994 - 2006**



**Notes:** Children include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

We see some evidence that some children of immigrants participate at higher rates than children with native-born parents. For instance unauthorized immigrants represented 4.1 percent of all those eligible for reduced-price lunches, but made up 5.2 percent of all participants (Table 13). The shares of native-born children with unauthorized immigrant parents, authorized immigrant parents, and mixed-status immigrant parents participating in reduced-price lunches were also slightly higher than their shares of the eligible populations. In contrast, children with native-born parents represented 68 percent of the eligible population and 65 percent of those participating.

**TABLE 13. Percent of Reduced-Price Lunch Eligibles and Participants by Immigrant Status Group in 2006 (weighted)**

	% Eligible	% Participating
Native-born Child, Native-born Parents	68.1%	65.2%
Native-born Child, Authorized immigrant parents	16.3%	17.5%
Native-born Child, Unauthorized immigrant parents	5.8%	6.7%
Native-born Child, Mixed-Status Parents	1.1%	1.2%
Native-born Child, Foreign-born Parents (status unknown)	0.8%	0.7%
Authorized Immigrant Child	3.9%	3.4%
Unauthorized Immigrant Child	4.1%	5.2%

**Notes:** Children include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).



## DECOMPOSITION ANALYSES

We apply demographic decomposition techniques as described in Das Gupta (1993) to the trend data to apportion the change over time in participation into a number of distinct components.<sup>40</sup> The components in the analysis include 1) immigrant status groups of children (e.g., native-born children of authorized immigrant parents), 2) size of the overall eligible population, and 3) take-up rates (number of participants divided by eligible children). We apply the technique to changes in WIC participation between 1997 and 2006 among all children ages 0 to 4 and among all breastfeeding and postpartum mothers, and to changes in NSLP participation between 1994 and 2006 among children ages 5 to 18. We consider the entire population of children (mothers)—those who are income-eligible and those who are not—and allocate the change in WIC participation (between 1997 and 2006) and NSLP participation (between 1994 and 2006) into the proportions due to each of the following:

- Proportion of the change in participation due to changes in the number and share of children (mothers) by immigrant status group as described previously<sup>41</sup>
- Proportion due to change in the number of children (mothers) that are eligible for the program; and
- Proportion due to changes in the take-up rates (number of participants divided by eligible children or mothers).

We also examine the role of these components on participation by the type of state in which mothers and children resided: traditional immigrant-receiving states, states with high-growth immigrant populations, and states with slower-growing immigrant populations (those states not in categories one or two).<sup>42</sup> The methodology for these analyses is explained in more detail in Appendix D.

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<sup>40</sup> See Henderson, Capps, and Finegold (2008) and Fix and Passel (2002) for similar applications of the decomposition techniques outlined by Das Gupta (1993).

<sup>41</sup> The effect of changing demographics represents the overall effect and does not identify the children group(s) driving the change. The decomposition technique, however, accounts for all groups by nativity and legal immigrant status (e.g., changes in the number of unauthorized immigrants, authorized immigrants, native-born children of unauthorized immigrants, native-born children of authorized immigrants, and native-born children with native-born parents).

<sup>42</sup> The six traditional destination states are California, New York, Texas, Florida, Illinois, and New Jersey. The high-growth states are Alabama, Arizona, Arkansas, Colorado, Delaware, Georgia, Idaho, Indiana, Iowa, Kansas,

## WIC

Overall, we estimate that the overall WIC participation rate for children (the number of participants divided by all children ages 0 to 4) increased from 27.5 percent in 1997 to 28.5 percent in 2006 (Table 14). The top panel of table 14 shows that the standardized participation rate would be 28 percent in 2006 if the only change is in the take-up rate, while holding constant changes in demographic composition (e.g. immigrant status) and eligibility.<sup>43</sup> Similarly, the standardized participation rate would be 28.1 percent if the only change is in the demographic composition of children, and 28.3 percent if the only change is in eligibility. The bottom panel of table 14 shows the proportion of change in participation due to each component. The change in participation rates was relatively small between 1997 and 2006 (1 percentage point) and the separate effects of changes in demographic composition (e.g., children with foreign-born parents versus children of native-born parents), eligibility, and take-up rates are also relatively small. Between 1997 and 2006, the effect of changes in demographic composition, while holding constant eligibility and take-up rates, was positive—increasing the overall WIC participation rate by 0.3 percentage points for children. Changes in the shares of children eligible for WIC had a slightly larger effect, 0.6 percentage points. Changes in take-up rates had the smallest effect—0.1 percentage points. Changes in immigrant status from 1997 to 2006 represented a relatively small share of the overall change in participation, 31.9 percent for children.

The participation rate among all breastfeeding and postpartum mothers increased from 25.9 percent to 26.6 percent, or 0.7 percentage points, between 1997 and 2006 (Table 15). The effect of changes in immigrant status, while holding constant eligibility and take-up rates, was positive—changes in immigrant status increased the overall WIC participation rate by 0.5 percentage points for women. Changes in the shares of mothers eligible for WIC had a slightly smaller effect, 0.3 percentage points. The effect of changes in the take-up rate was negative (-0.1

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Kentucky, Minnesota, Mississippi, Nebraska, Nevada, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Utah, and Washington (Capps et al. 2007; Fortuny, Capps, and Passel 2007; Fortuny, Capps, Simms, and Chaudry, 2009).

<sup>43</sup> The term “demographic composition” refers to the immigrant status groups as defined in the report, e.g., native-born children of native-born parents, and does not reflect other demographic characteristics, such as age and race/ethnicity.

percentage points). Changes in the immigrant status of mothers represented more than half, 71.6 percent, of the overall change in participation.

**TABLE 14. Children, Ages 0–4: Effects of Changes in Immigrant Status, Eligibility, and Take-up on WIC Participation between 1997–2006**

<b>Standardization</b>		
<b>Standardized Participation Rates<sup>1</sup></b>	<b>2006 [A]</b>	<b>1997 [B]</b>
Immigrant Status of Children, Eligibility Standardized Rates	28.0%	27.9%
Eligibility, Take-up Standardized Rates	28.1%	27.8%
Immigrant Status of Children, Use Standardized Rates	28.3%	27.7%
<b>Overall Participation Rates</b>	<b>28.5%</b>	<b>27.5%</b>
<b>Decomposition</b>		
<b>Effects<sup>2</sup></b>	<b>Difference [A] – [B]</b>	<b>Percent Distribution of Effects</b>
Immigrant Status of Children Effect	0.3%	31.9%
Eligibility Effect	0.6%	56.4%
Take-up Rate Effect	0.1%	11.7%
<b>Total Effect</b>	<b>1.0%</b>	<b>100.0%</b>

**Notes:**

<sup>1</sup>The standardized participation rate shows the participation rate due to a change in each component (e.g., take-up rate), holding constant the other two components (e.g., demographic composition and eligibility).

<sup>2</sup>The individual main effects represent the proportions of the change due to each component, holding constant the other two components. The total effect is the sum of the individual main effects.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE 15. Breastfeeding and Postpartum Mothers: Effects of Changes in Immigrant Status, Eligibility, and Take-up on WIC Participation between 1997–2006**

<b>Standardization</b>		
<b>Standardized Participation Rates<sup>1</sup></b>	<b>2006 [A]</b>	<b>1997 [B]</b>
Immigrant Status of Mothers, Eligibility Standardized Rates	26.1%	26.3%
Eligibility, Take-up Standardized Rates	26.5%	26.0%
Immigrant Status of Mothers, Use Standardized Rates	26.4%	26.1%
<b>Overall Participation Rates</b>	<b>26.6%</b>	<b>25.9%</b>
<b>Decomposition</b>		
<b>Effects<sup>2</sup></b>	<b>Difference [A] – [B]</b>	<b>Percent Distribution of Effects</b>
Immigrant Status of Mothers Effect	0.5%	71.6%
Eligibility Effect	0.3%	46.4%
Take-up Rate Effect	-0.1%	-18.0%
<b>Total Effect</b>	<b>0.7%</b>	<b>100.0%</b>

**Notes:**

<sup>1</sup>The standardized participation rate shows the participation rate due to a change in each component (e.g., take-up rate), holding constant the other two components (e.g., demographic composition and eligibility).

<sup>2</sup>The individual main effects represent the proportions of the change due to each component, holding constant the other two components. The total effect is the sum of the individual main effects.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

Next, we examine the role of the three components—demographic composition, eligibility rates, and take-up rates, on WIC participation rates by the type of state in which mothers and children resided (traditional immigrant-receiving states, states with high-growth immigrant populations, and states with slower-growing immigrant populations). We find that the overall change in participation rates between 1997 and 2006 were small for the three types of states, so the effect sizes of a change in the demographic composition on WIC participation rates were small as well. Of note, the effect size of a change in the demographic composition (children with native-born parents versus foreign-born parents) on WIC participation rates for mothers and children was higher in traditional immigrant-receiving states (0.4 percentage points for children; 0.7 percentage points for mothers) than in high-growth immigrant states (0.3 percentage points for children; 0.5 percentage points for mothers), and states with slower-growing immigrant populations (0.0 percentage points for children; 0.1 percentage points for mothers, Tables 16–21).

**TABLE 16. Children, Ages 0–4 from Traditional Immigrant-Receiving States: Effects of Changes in Immigrant Status, Eligibility, and Take-up on WIC Participation between 1997–2006**

Standardization		
	2006	1997
<b>Standardized Participation Rates<sup>1</sup></b>	<b>[A]</b>	<b>[B]</b>
Immigrant Status of Children, Eligibility Standardized Rates	32.4%	27.9%
Eligibility, Take-up Standardized Rates	30.4%	30.0%
Immigrant Status of Children, Use Standardized Rates	29.6%	30.8%
<b>Overall Participation Rates</b>	<b>32.0%</b>	<b>28.3%</b>
Decomposition		
<b>Effects<sup>2</sup></b>	<b>Difference</b>	<b>Percent Distribution</b>
	<b>[A] – [B]</b>	<b>of Effects</b>
Immigrant Status of Children Effect	0.4%	9.9%
Eligibility Effect	-1.2%	-31.4%
Take-up Rate Effect	4.5%	121.5%
<b>Total Effect</b>	<b>3.7%</b>	<b>100.0%</b>

*Notes:* Traditional immigrant-receiving states include California, New York, Texas, Florida, Illinois, and New Jersey.

<sup>1</sup>The standardized participation rate shows the participation rate due to a change in each component (e.g., take-up rate), holding constant the other two components (e.g., demographic composition and eligibility).

<sup>2</sup>The individual main effects represent the proportions of the change due to each component, holding constant the other two components. The total effect is the sum of the individual main effects.

*Source:* Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE 17. Breastfeeding and Postpartum Mothers from Traditional Immigrant-Receiving States: Effects of Changes in Immigrant Status, Eligibility, and Take-up on WIC Participation between 1997–2006**

Standardization		
	2006	1997
<b>Standardized Participation Rates<sup>1</sup></b>	<b>[A]</b>	<b>[B]</b>
Immigrant Status of Mothers, Eligibility Standardized Rates	29.3%	29.2%
Eligibility, Take-up Standardized Rates	29.7%	29.0%
Immigrant Status of Mothers, Use Standardized Rates	28.6%	30.1%
<b>Overall Participation Rates</b>	<b>28.9%</b>	<b>29.7%</b>
Decomposition		
<b>Effects<sup>2</sup></b>	<b>Difference</b>	<b>Percent Distribution</b>
	<b>[A] – [B]</b>	<b>of Effects</b>
Immigrant Status of Mothers Effect	0.7%	-85.2%
Eligibility Effect	-1.5%	200.7%
Take-up Rate Effect	0.1%	-15.5%
<b>Total Effect</b>	<b>-0.8%</b>	<b>100.0%</b>

*Notes:* Traditional immigrant-receiving states include California, New York, Texas, Florida, Illinois, and New Jersey.

<sup>1</sup>The standardized participation rate shows the participation rate due to a change in each component (e.g., take-up rate), holding constant the other two components (e.g., demographic composition and eligibility).

<sup>2</sup>The individual main effects represent the proportions of the change due to each component, holding constant the other two components. The total effect is the sum of the individual main effects.

*Source:* Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE 18. Children, Ages 0–4, from States with High-Growth Immigrant Populations: Effects of Changes in Immigrant Status, Eligibility, and Take-up on WIC Participation between 1997–2006**

<b>Standardization</b>		
<b>Standardized Participation Rates<sup>1</sup></b>	<b>2006 [A]</b>	<b>1997 [B]</b>
Immigrant Status of Children, Eligibility Standardized Rates	26.0%	29.3%
Eligibility, Take-up Standardized Rates	27.8%	27.5%
Immigrant Status of Children, Use Standardized Rates	28.5%	26.8%
<b>Overall Participation Rates</b>	<b>26.9%</b>	<b>28.3%</b>
<b>Decomposition</b>		
<b>Effects<sup>2</sup></b>	<b>Difference [A] – [B]</b>	<b>Percent Distribution of Effects</b>
Immigrant Status of Children Effect	0.3%	-19.8%
Eligibility Effect	1.7%	-124.5%
Take-up Rate Effect	-3.3%	244.3%
<b>Total Effect</b>	<b>-1.4%</b>	<b>100.0%</b>

*Notes:* States with rapidly-growing immigrant populations include Alabama, Arizona, Arkansas, Colorado, Delaware, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Minnesota, Mississippi, Nebraska, Nevada, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Utah, and Washington.

<sup>1</sup>The standardized participation rate shows the participation rate due to a change in each component (e.g., take-up rate), holding constant the other two components (e.g., demographic composition and eligibility).

<sup>2</sup>The individual main effects represent the proportions of the change due to each component, holding constant the other two components. The total effect is the sum of the individual main effects.

*Source:* Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE 19. Breastfeeding and Postpartum Mothers from States with High-Growth Immigrant Populations: Effects of Changes in Immigrant Status, Eligibility, and Take-up on WIC Participation between 1997–2006**

<b>Standardization</b>		
	<b>2006</b>	<b>1997</b>
<b>Standardized Participation Rates<sup>1</sup></b>	<b>[A]</b>	<b>[B]</b>
Immigrant Status of Mothers, Eligibility Standardized Rates	25.5%	25.6%
Eligibility, Take-up Standardized Rates	25.8%	25.3%
Immigrant Status of Mothers, Use Standardized Rates	25.8%	25.3%
<b>Overall Participation Rates</b>	<b>26.1%</b>	<b>25.2%</b>
<b>Decomposition</b>		
<b>Effects<sup>2</sup></b>	<b>Difference</b>	<b>Percent Distribution</b>
	<b>[A] – [B]</b>	<b>of Effects</b>
Immigrant Status of Mothers Effect	0.5%	55.4%
Eligibility Effect	0.5%	54.0%
Take-up Rate Effect	-0.1%	-9.4%
<b>Total Effect</b>	<b>0.9%</b>	<b>100.0%</b>

*Notes:* States with rapidly-growing immigrant populations include Alabama, Arizona, Arkansas, Colorado, Delaware, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Minnesota, Mississippi, Nebraska, Nevada, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Utah, and Washington.

<sup>1</sup>The standardized participation rate shows the participation rate due to a change in each component (e.g., take-up rate), holding constant the other two components (e.g., demographic composition and eligibility).

<sup>2</sup>The individual main effects represent the proportions of the change due to each component, holding constant the other two components. The total effect is the sum of the individual main effects.

*Source:* Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE 20. Children, Ages 0–4, from States with Slower-growing Immigrant Populations: Effects of Changes in Immigrant Status, Eligibility, and Take-up on WIC Participation between 1997–2006**

<b>Standardization</b>		
<b>Standardized Participation Rates<sup>1</sup></b>	<b>2006 [A]</b>	<b>1997 [B]</b>
Immigrant Status of Children, Eligibility Standardized Rates	24.4%	26.3%
Eligibility, Take-up Standardized Rates	25.4%	25.3%
Immigrant Status of Children, Use Standardized Rates	26.1%	24.6%
<b>Overall Participation Rates</b>	<b>25.1%</b>	<b>25.4%</b>
<b>Decomposition</b>		
<b>Effects<sup>2</sup></b>	<b>Difference [A] – [B]</b>	<b>Percent Distribution of Effects</b>
Immigrant Status of Children Effect	0.0%	-15.1%
Eligibility Effect	1.5%	-517.7%
Take-up Rate Effect	-1.8%	632.8%
<b>Total Effect</b>	<b>-0.3%</b>	<b>100.0%</b>

*Notes:* States with slower-growing immigrant populations include Alaska, Connecticut, DC, Hawaii, Louisiana, Maine, Maryland, Massachusetts, Michigan, Missouri, Montana, New Hampshire, New Mexico, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, Virginia, West Virginia, Wisconsin, and Wyoming.

<sup>1</sup>The standardized participation rate shows the participation rate due to a change in each component (e.g., take-up rate), holding constant the other two components (e.g., demographic composition and eligibility).

<sup>2</sup>The individual main effects represent the proportions of the change due to each component, holding constant the other two components. The total effect is the sum of the individual main effects.

*Source:* Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).



**TABLE 21. Breastfeeding and Postpartum Mothers from States with Slower-growing Immigrant Populations: Effects of Changes in Immigrant Status, Eligibility, and Take-up on WIC Participation between 1997–2006**

<b>Standardization</b>		
	<b>2006</b>	<b>1997</b>
<b>Standardized Participation Rates<sup>1</sup></b>	<b>[A]</b>	<b>[B]</b>
Immigrant Status of Mothers, Eligibility Standardized Rates	22.4%	22.8%
Eligibility, Take-up Standardized Rates	22.7%	22.6%
Immigrant Status of Mothers, Use Standardized Rates	24.0%	21.2%
<b>Overall Participation Rates</b>	<b>23.9%</b>	<b>21.3%</b>

<b>Decomposition</b>		
<b>Effects<sup>2</sup></b>	<b>Difference</b>	<b>Percent Distribution</b>
	<b>[A] – [B]</b>	<b>of Effects</b>
Immigrant Status of Mothers Effect	0.1%	4.4%
Eligibility Effect	2.8%	108.9%
Take-up Rate Effect	-0.3%	-13.3%
<b>Total Effect</b>	<b>2.6%</b>	<b>100.0%</b>

*Notes:* States with slower-growing immigrant populations include Alaska, Connecticut, DC, Hawaii, Louisiana, Maine, Maryland, Massachusetts, Michigan, Missouri, Montana, New Hampshire, New Mexico, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, Virginia, West Virginia, Wisconsin, and Wyoming.

<sup>1</sup>The standardized participation rate shows the participation rate due to a change in each component (e.g., take-up rate), holding constant the other two components (e.g., demographic composition and eligibility).

<sup>2</sup>The individual main effects represent the proportions of the change due to each component, holding constant the other two components. The total effect is the sum of the individual main effects.

*Source:* Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

## **NSLP**

We estimate that the free lunch participation rate (number of participants divided by number of children ages 5 to 18) increased from 22.6 percent in 1994 to 23.7 in 2006; and the reduced-price participation rate among all children increased from 3.5 percent to 5.1 percent during this time (Tables 22 and 23). The change in participation rates was small between 1994 and 2006 (1.1 percentage points for free lunch participation and 1.6 percentage points for reduced-price participation). Between 1994 and 2006, the effect of the changing demographic composition of children (e.g. immigrant status), while holding constant eligibility and take-up rates, was 0.3 percentage points in the free lunch participation rate and 0.2 percentage points in the reduced-price lunch participation rate. Changes in the shares of children eligible for free lunch had a large negative effect (-8.4 percentage points) that was offset by the positive effect of the change in the take-up rate (9.2 percentage points). For participation in reduced price lunches, changes in eligibility (0.5 percentage points) and take-up rate (0.9 percentage points) were both positive and larger than the effect of changes in immigrant status (0.2 percentage points). Changes in immigrant status among all children represented relatively small shares, 29.6 and 10.6 percent, respectively, of the overall change in free and reduced-price lunch participation from 1994 to 2006.

**TABLE 22. Children Ages 5–18: Effects of Changes in Immigrant Status, Eligibility, and Take-up on Free Lunch Participation between 1994–2006**

<b>Standardization</b>		
	<b>2006</b>	<b>1994</b>
<b>Standardized Participation Rates<sup>1</sup></b>	<b>[A]</b>	<b>[B]</b>
Immigrant Status of Children, Eligibility Standardized Rates	28.6%	19.4%
Eligibility, Take-up Standardized Rates	24.1%	23.8%
Immigrant Status of Children, Use Standardized Rates	19.8%	28.1%
<b>Overall Participation Rates</b>	<b>23.7%</b>	<b>22.6%</b>

<b>Decomposition</b>		
<b>Effects<sup>2</sup></b>	<b>Difference</b>	<b>Percent Distribution</b>
	<b>[A] – [B]</b>	<b>of Effects</b>
Immigrant Status of Children Effect	0.3%	29.6%
Eligibility Effect	-8.4%	-735.5%
Take-up Rate Effect	9.2%	806.0%
<b>Total Effect</b>	<b>1.1%</b>	<b>100.0%</b>

**Notes:**

<sup>1</sup>The standardized participation rate shows the participation rate due to a change in each component (e.g., take-up rate), holding constant the other two components (e.g., demographic composition and eligibility).

<sup>2</sup>The individual main effects represent the proportions of the change due to each component, holding constant the other two components. The total effect is the sum of the individual main effects.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE 23. Children Ages 5–18: Effects of Changes in Immigrant Status, Eligibility, and Take-up on Reduced-Price Lunch Participation between 1994–2006**

<b>Standardization</b>		
	<b>2006</b>	<b>1994</b>
<b>Standardized Participation Rates<sup>1</sup></b>	<b>[A]</b>	<b>[B]</b>
Immigrant Status of Mothers, Eligibility Standardized Rates	4.7%	3.8%
Eligibility, Take-up Standardized Rates	4.3%	4.1%
Immigrant Status of Mothers, Use Standardized Rates	4.5%	4.0%
<b>Overall Participation Rates</b>	<b>5.1%</b>	<b>3.5%</b>
<b>Decomposition</b>		
<b>Effects<sup>2</sup></b>	<b>Difference</b>	<b>Percent Distribution</b>
	<b>[A] – [B]</b>	<b>of Effects</b>
Immigrant Status of Children Effect	0.2%	10.6%
Eligibility Effect	0.5%	31.4%
Take-up Rate Effect	0.9%	58.0%
<b>Total Effect</b>	<b>1.6%</b>	<b>100.0%</b>

**Notes:**

<sup>1</sup>The standardized participation rate shows the participation rate due to a change in each component (e.g., take-up rate), holding constant the other two components (e.g., demographic composition and eligibility).

<sup>2</sup>The individual main effects represent the proportions of the change due to each component, holding constant the other two components. The total effect is the sum of the individual main effects.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

We also examine the effects of changes in the demographic composition among children, changes in eligibility rates, and changes in take-up rates on NSLP participation rates by type of state (traditional immigrant-receiving state, states with high-growth immigrant populations, and states with slower-growth immigrant populations). Results are similar to those for WIC—effects of changes in the demographic composition of children were small. Unlike the results for WIC, however, changes in the demographic composition of children living in high-growth states had a slightly larger effect on participation rates than for children living in traditional immigrant-receiving states—0.4 percentage points versus 0.3 percentage points for free lunch, and 0.3 percentage points versus 0.2 percentage points for reduced-price lunch (Tables 24–29).

**TABLE 24. Children Ages 5–18 from Traditional Immigrant-Receiving States: Effects of Changes in Immigrant Status, Eligibility, and Take-up on Free Lunch Participation between 1994–2006**

Standardization		
	2006 [A]	1994 [B]
<b>Standardized Participation Rates<sup>1</sup></b>		
Immigrant Status of Children, Eligibility Standardized Rates	30.7%	21.0%
Eligibility, Take-up Standardized Rates	26.0%	25.7%
Immigrant Status of Children, Use Standardized Rates	21.2%	30.5%
<b>Overall Participation Rates</b>	<b>25.3%</b>	<b>24.6%</b>
Decomposition		
Effects <sup>2</sup>	Difference [A] – [B]	Percent Distribution of Effects
Immigrant Status of Children Effect	0.3%	46.8%
Eligibility Effect	-9.3%	-1444.5%
Take-up Rate Effect	9.7%	1497.7%
<b>Total Effect</b>	<b>0.6%</b>	<b>100.0%</b>

*Notes:* Traditional immigrant-receiving states include California, New York, Texas, Florida, Illinois, and New Jersey.

<sup>1</sup>The standardized participation rate shows the participation rate due to a change in each component (e.g., take-up rate), holding constant the other two components (e.g., demographic composition and eligibility).

<sup>2</sup>The individual main effects represent the proportions of the change due to each component, holding constant the other two components. The total effect is the sum of the individual main effects.

*Source:* Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE 25. Children Ages 5–18 from Traditional Immigrant-Receiving States: Effects of Changes in Immigrant Status, Eligibility, and Take-up on Reduced-Price Lunch Participation between 1994–2006**

Standardization		
	2006 [A]	1994 [B]
<b>Standardized Participation Rates<sup>1</sup></b>		
Immigrant Status of Children, Eligibility Standardized Rates	4.5%	3.9%
Eligibility, Take-up Standardized Rates	4.3%	4.1%
Immigrant Status of Mothers, Use Standardized Rates	4.6%	3.8%
<b>Overall Participation Rates</b>	<b>5.0%</b>	<b>3.5%</b>
Decomposition		
Effects <sup>2</sup>	Difference [A] – [B]	Percent Distribution of Effects
Immigrant Status of Children Effect	0.2%	12.7%
Eligibility Effect	0.7%	48.1%
Take-up Rate Effect	0.6%	39.2%
<b>Total Effect</b>	<b>1.5%</b>	<b>100.0%</b>

*Notes:* Traditional immigrant-receiving states include California, New York, Texas, Florida, Illinois, and New Jersey.

<sup>1</sup>The standardized participation rate shows the participation rate due to a change in each component (e.g., take-up rate), holding constant the other two components (e.g., demographic composition and eligibility).

<sup>2</sup>The individual main effects represent the proportions of the change due to each component, holding constant the other two components. The total effect is the sum of the individual main effects.

*Source:* Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE 26. Children Ages 5–18 from States with High-Growth Immigrant Populations: Effects of Changes in Immigrant Status, Eligibility, and Take-up on Free Lunch Participation between 1994–2006**

<b>Standardization</b>		
	<b>2006</b>	<b>1994</b>
<b>Standardized Participation Rates<sup>1</sup></b>	<b>[A]</b>	<b>[B]</b>
Immigrant Status of Children, Eligibility Standardized Rates	28.8%	20.6%
Eligibility, Take-up Standardized Rates	24.9%	24.5%
Immigrant Status of Children, Use Standardized Rates	20.9%	28.4%
<b>Overall Participation Rates</b>	<b>24.6%</b>	<b>23.4%</b>

<b>Decomposition</b>		
<b>Effects<sup>2</sup></b>	<b>Difference</b>	<b>Percent Distribution</b>
	<b>[A] – [B]</b>	<b>of Effects</b>
Immigrant Status of Children Effect	0.4%	35.3%
Eligibility Effect	-7.5%	-654.4%
Take-up Rate Effect	8.3%	719.0%
<b>Total Effect</b>	<b>1.1%</b>	<b>100.0%</b>

*Notes:* States with rapidly-growing immigrant populations include Alabama, Arizona, Arkansas, Colorado, Delaware, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Minnesota, Mississippi, Nebraska, Nevada, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Utah, and Washington.

<sup>1</sup>The standardized participation rate shows the participation rate due to a change in each component (e.g., take-up rate), holding constant the other two components (e.g., demographic composition and eligibility).

<sup>2</sup>The individual main effects represent the proportions of the change due to each component, holding constant the other two components. The total effect is the sum of the individual main effects.

*Source:* Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE 27. Children Ages 5–18 from States with High-Growth Immigrant Populations: Effects of Changes in Immigrant Status, Eligibility, and Take-up on Reduced-Price Lunch Participation between 1994–2006**

<b>Standardization</b>		
	<b>2006</b>	<b>1994</b>
<b>Standardized Participation Rates<sup>1</sup></b>	<b>[A]</b>	<b>[B]</b>
Immigrant Status of Children, Eligibility Standardized Rates	5.3%	4.3%
Eligibility, Take-up Standardized Rates	4.9%	4.7%
Immigrant Status of Mothers, Use Standardized Rates	4.9%	4.7%
<b>Overall Participation Rates</b>	<b>5.5%</b>	<b>4.1%</b>
<b>Decomposition</b>		
<b>Effects<sup>2</sup></b>	<b>Difference</b>	<b>Percent Distribution</b>
	<b>[A] – [B]</b>	<b>of Effects</b>
Immigrant Status of Children Effect	0.3%	17.9%
Eligibility Effect	0.2%	16.3%
Take-up Rate Effect	1.0%	65.8%
<b>Total Effect</b>	<b>1.5%</b>	<b>100.0%</b>

*Notes:* States with rapidly-growing immigrant populations include Alabama, Arizona, Arkansas, Colorado, Delaware, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Minnesota, Mississippi, Nebraska, Nevada, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Utah, and Washington.

<sup>1</sup>The standardized participation rate shows the participation rate due to a change in each component (e.g., take-up rate), holding constant the other two components (e.g., demographic composition and eligibility).

<sup>2</sup>The individual main effects represent the proportions of the change due to each component, holding constant the other two components. The total effect is the sum of the individual main effects.

*Source:* Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE 28. Children Ages 5–18 from States with Slow-Growth Immigrant Populations: Effects of Changes in Immigrant Status, Eligibility, and Take-up on Free Lunch Participation between 1994–2006**

<b>Standardization</b>		
	<b>2006</b>	<b>1994</b>
<b>Standardized Participation Rates<sup>1</sup></b>	<b>[A]</b>	<b>[B]</b>
Immigrant Status of Children, Eligibility Standardized Rates	25.2%	16.1%
Eligibility, Take-up Standardized Rates	20.6%	20.5%
Immigrant Status of Children, Use Standardized Rates	16.7%	24.4%
<b>Overall Participation Rates</b>	<b>20.5%</b>	<b>19.0%</b>
<b>Decomposition</b>		
<b>Effects<sup>2</sup></b>	<b>Difference</b>	<b>Percent Distribution</b>
	<b>[A] – [B]</b>	<b>of Effects</b>
Immigrant Status of Children Effect	0.1%	7.3%
Eligibility Effect	-7.8%	-543.2%
Take-up Rate Effect	9.1%	635.9%
<b>Total Effect</b>	<b>1.4%</b>	<b>100.0%</b>

*Notes:* States with slower-growing immigrant populations include Alaska, Connecticut, DC, Hawaii, Louisiana, Maine, Maryland, Massachusetts, Michigan, Missouri, Montana, New Hampshire, New Mexico, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, Virginia, West Virginia, Wisconsin, and Wyoming.

<sup>1</sup>The standardized participation rate shows the participation rate due to a change in each component (e.g., take-up rate), holding constant the other two components (e.g., demographic composition and eligibility).

<sup>2</sup>The individual main effects represent the proportions of the change due to each component, holding constant the other two components. The total effect is the sum of the individual main effects.

*Source:* Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).



**TABLE 29. Children Ages 5–18 from States with Slow-Growth Immigrant Populations: Effects of Changes in Immigrant Status, Eligibility, and Take-up on Reduced-Price Lunch Participation between 1994–2006**

<b>Standardization</b>		
	<b>2006</b>	<b>1994</b>
<b>Standardized Participation Rates<sup>1</sup></b>	<b>[A]</b>	<b>[B]</b>
Immigrant Status of Children, Eligibility Standardized Rates	4.4%	3.1%
Eligibility, Take-up Standardized Rates	3.8%	3.7%
Immigrant Status of Mothers, Use Standardized Rates	3.9%	3.5%
<b>Overall Participation Rates</b>	<b>4.6%</b>	<b>2.8%</b>
<b>Decomposition</b>		
<b>Effects<sup>2</sup></b>	<b>Difference</b>	<b>Percent Distribution</b>
	<b>[A] – [B]</b>	<b>of Effects</b>
Immigrant Status of Children Effect	0.1%	5.1%
Eligibility Effect	0.4%	20.9%
Take-up Rate Effect	1.3%	74.0%
<b>Total Effect</b>	<b>1.8%</b>	<b>100.0%</b>

*Notes:* States with slower-growing immigrant populations include Alaska, Connecticut, DC, Hawaii, Louisiana, Maine, Maryland, Massachusetts, Michigan, Missouri, Montana, New Hampshire, New Mexico, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, Virginia, West Virginia, Wisconsin, and Wyoming.

<sup>1</sup>The standardized participation rate shows the participation rate due to a change in each component (e.g., take-up rate), holding constant the other two components (e.g., demographic composition and eligibility).

<sup>2</sup>The individual main effects represent the proportions of the change due to each component, holding constant the other two components. The total effect is the sum of the individual main effects.

*Source:* Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

## MULTIVARIATE ANALYSES

Using multivariate linear regression modeling, we analyzed the association between growth in WIC and NSLP take-up rates (number of participants divided by number of eligibles) and growth in the number of eligible immigrants to determine to the extent to which changes over time in WIC and NSLP take-up rates are explained by growth in the population of eligible immigrants, changes in economic conditions, and other factors.<sup>44</sup> Specifically, we examined the association between growth in take-up and growth in the number of eligible children (mothers) in each immigrant group (e.g., unauthorized immigrants), controlling for state immigration trends (traditional immigrant-receiving states, states with rapidly-growing immigrant populations, and states with slower-growing immigrant populations), state economic characteristics (state unemployment and poverty rates), and other demographic factors related to take-up for the WIC and NSLP eligible populations. For WIC, we examined changes in the take-up rates between 1997 and 2006 and for NSLP we examined changes in the take-up rates between 1994 and 2006.

The linear regression model is used to predict the probability of take-up for eligible children (mothers) in WIC and NSLP (the multivariate regression model is explained in more detail in Appendix E). For the independent variables we include characteristics of participants and families (e.g. child age, mother's age, race, mother's education, family structure, household composition), immigrant status (of the child and parents), state immigration trends, and state demographic and economic characteristics. We include dummy variables for the time period we are analyzing (beginning and ending year) with the coefficient on the time variable representing the overall change in take-up rates between the two time periods. The coefficients on the immigrant status variables (e.g., authorized immigrant) represent the likelihood of take-up at the beginning of the time period for each immigrant status group relative to the reference group (e.g., native-born children of native-born parents). We also include an interaction term between the time period and immigrant status group to determine the relative change in the take-up rates for each group. The coefficient on the interaction term represents the relative difference—the change in the likelihood of take-up between 1997 and 2006 for the relevant group (e.g., authorized

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<sup>44</sup> In this section, we examine the predicted take-up rate, that is, the likelihood of WIC/NSLP take-up among eligible children (mothers), while controlling for other factors.

immigrant mothers) versus the change in likelihood of take-up for the reference group (e.g., native-born mothers) during the same time.

We estimated models separately for (1) WIC eligible mothers, (2) WIC eligible children, (3) children eligible for free lunches, and (4) children eligible for reduced-price lunches. We combined two years of data at each start and end points to maximize sample size, as was done in a companion study of SNAP participation (Henderson, Capps, and Finegold 2008). We first describe each sample then we turn to the results of the models. Full model results are presented in tables 31-32 and 34-35.

## **WIC**

The demographic characteristics of children eligible for WIC remained fairly stable between 1997 and 2006.<sup>45</sup> Nearly all of the children eligible for WIC were native-born in both the 1997 and 2005-2006 cohorts (98.5 percent and 98.2 percent, respectively) (Table 30). The share of native-born children with immigrant parents, however, increased some, from 22.4 to 25.8 percent. The share of native-born children with unauthorized immigrant parents increased from 6.8 percent of all eligible for WIC in 1997 to 10.4 percent in 2006. Native-born children with native-born parents had a comparable decline, from 76.1 percent of all eligible for WIC in 1997 to 72.3 percent in 2006. The largest share of children in the 1997 cohort (43.2 percent) lived in traditionally immigrant-receiving states, followed by states with rapidly-growing immigrant population (30.6 percent). Similar patterns also existed in the 2006 cohort; however, the share of all children decreased (by 3 percentage points) in traditional immigrant-receiving states and increased (by 3.2 percentage points) in states with rapidly-growing immigrant populations.

The unemployment rate did not change much from the 1997 cohort to the 2006 cohort. In contrast, the child poverty rate increased by about 2.5 percentage points from 15.1 percent to 17.6 percent.

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<sup>45</sup> “1997” in this section refers to the 1997–1998 period, and “2006” to 2005–2006.

Nearly half of the children eligible for WIC were white in the 1997 and 2006 cohorts (48.4 percent and 45.1 percent, respectively), followed by Hispanics and blacks. Between these two cohorts, the share of white children decreased (3.2 percentage points) whereas the share of Hispanic children increased (3.6 percentage points). Despite a slight decrease from the 1997 cohort to the 2006 cohort, about half of the children lived in two-parent households (51.7 percent and 49.0 percent, respectively). More than one-third of the mothers were high school graduates in the 1997 cohort (36.8 percent) and 2006 cohort (35.1 percent) and similar shares had mothers with at least a college degree (32.9 percent in the 1997 cohort and 37.6 percent in the 2006 cohort).

With regard to mothers eligible for WIC, the majority were either authorized immigrants or native-born in both of the cohorts. However, the percentage of unauthorized immigrant mothers increased in share from 6.7 percent in 1997 to 10.3 percent in 2006. About 40 percent of eligible mothers lived in traditionally immigrant-receiving states in 1997 and 2006 (42.7 percent and 39.0 percent, respectively). The share of all mothers living in states with rapidly-growing immigrant populations stayed relatively stable at one-third, while there was a slight increase in the share of mothers in the states with slower-growing immigrant populations.

More than half of the mothers eligible for WIC were white in both of the cohorts (55.3 percent and 53.5 percent, respectively), followed by Hispanics and blacks. Between these two cohorts, there was a slight decrease in the number of white mothers (1.8 percentage points) whereas the number of Hispanic mothers increased (1.7 percentage points). Most of the mothers lived in a two-parent household in both cohorts; however, there was a decrease (5.4 percentage points) in the percent of mothers living in two-parent households. In the 1997 cohort, more than one-third of mothers were high school graduates (38.3 percent), followed by those with a college degree (34.5 percent). The share with college degree increased to 40.6 percent in the 2006 cohort.

**TABLE 30. Demographic Characteristics of Children Ages 0–4 and Breastfeeding and Postpartum Mothers Eligible for WIC, 1997–1998 and 2005–2006 (weighted)**

Children			Mothers		
	1997 - 1998	2005 - 2006		1997 - 1998	2005 - 2006
Immigrant Status			Immigrant Status		
Unauthorized	0.7%	1.2%	Unauthorized	6.7%	10.3%
Authorized	0.9%	0.7%	Authorized	12.6%	13.5%
Native-born, authorized immigrant parents only	14.9%	14.6%	Native-born	80.8%	76.2%
Native-born, unauthorized immigrant parents	6.8%	10.4%			
Native-born, native-born parent	76.1%	72.3%			
Native born, unknown	0.7%	0.8%			
State Immigrant Characteristics			State Immigrant Characteristics		
Traditional immigrant-receiving states <sup>1</sup>	43.2%	40.2%	Traditional immigrant-receiving states <sup>1</sup>	42.7%	39.0%
States with rapidly-growing immigrant populations <sup>2</sup>	30.6%	33.8%	States with rapidly-growing immigrant populations <sup>2</sup>	33.2%	33.1%
States with slower-growing immigrant populations	26.2%	26.0%	States with slower-growing immigrant populations	24.1%	27.9%
Sate Economic Conditions			Sate Economic Conditions		
Unemployment rate	4.9	4.9	Unemployment rate	4.8	4.9
Child poverty rate	15.1	17.6	Adult poverty rate	13.3	12.8
Family Characteristics <sup>3</sup>			Family Characteristics <sup>3</sup>		
Race			Race		
Asian	3.7%	3.2%	Asian	2.4%	3.5%
Black	20.0%	19.7%	Black	16.6%	15.6%
Hispanic	26.3%	29.9%	Hispanic	23.9%	25.6%
White	48.4%	45.1%	White	55.3%	53.5%
Other	1.7%	2.1%	Other	1.7%	1.8%
Age of mother	29.3	29.8	Age	27.5	27.8
Age of child	2.0	1.9			
Family structure			Family structure		
Single-parent	43.1%	45.4%	Single-parents	29.7%	35.1%
Two-parents	51.7%	49.0%	Two-parents	70.3%	64.9%
No parents, other adults in household	5.2%	5.6%			
Mother's marital status			Mother's marital status		
Married	56.0%	53.7%	Married	70.3%	64.9%
Not married	44.0%	46.3%	Not married	29.7%	35.1%
Mother's education			Mother's education		
Less than high school	30.2%	27.3%	Less than high school	26.1%	24.8%
High school	36.8%	35.1%	High school	38.3%	34.5%
College	32.9%	37.6%	College	35.6%	40.6%
Number of adults in household	2.5	2.1	Number of adults in household	1.9	1.9
Number of children in household	2.5	2.5	Number of children in household	2.4	2.3
Number of Observations	15,220	20,776	Number of Observations	2,037	2,759

1. Traditional immigrant-receiving states include, California, New York, Texas, Florida, Illinois, and New Jersey

2. States with rapidly-growing immigrant populations include, Alabama, Arizona, Arkansas, Colorado, Delaware, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Minnesota, Mississippi, Nebraska, Nevada, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Utah, Washington

3. For mother characteristics, when there is no mother in the household, the father's information is used, and when there is no father, the household head's information is used

Turning to results of the linear multivariate regression models, we did not find evidence that in 1997 unauthorized immigrant mothers eligible for WIC participated at a different rate than their native-born peers, but we found that unauthorized immigrant mothers were 6.4 percentage points more likely to participate in 2006 than in 1997 compared with native-born mothers, once we accounted for other potentially confounding factors (Table 31). This represents the relative difference—the change in the likelihood of take-up between 1997 and 2006 for the relevant group (e.g., unauthorized immigrant mothers) versus the change in likelihood of take-up for the reference group (e.g., native-born mothers) during the same time. Authorized immigrant mothers were 3.6 percentage points more likely to take-up WIC in 2006 than in 1997 compared with native-born mothers. Despite the faster growth in take-up for unauthorized immigrant mothers during the study period, they were not more likely to take-up WIC than native-born mothers in 2006 (combined effect not shown in table).<sup>46</sup> In contrast, authorized immigrant mothers were 5.4 percentage points more likely to take-up than native-born mothers in 2006 (combined effect not shown in table).<sup>47</sup>

Among children eligible for WIC, we did not find evidence that unauthorized immigrant children were more or less likely to take-up WIC than their native-born peers; however, sample sizes of unauthorized immigrant children might be too small to detect significant effects since most young children in WIC were U.S.-born and unlikely to be unauthorized immigrants (Table 32). Examining the likelihood of take-up for native-born children with unauthorized immigrant parents, we found that there were no differences in take-up rates between native-born children with unauthorized immigrant parents and native-born children with native-born parents in 1997, but native-born children with unauthorized immigrant parents were 4.8 percentage points more likely to take-up WIC in 2006 than 1997 compared with native-born children with native-born parents. Similarly, native-born children with authorized immigrant parents were 5.2 percentage points more likely to take-up WIC in 2006 than 1997 compared with native-born children with

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<sup>46</sup> The combined effect—the sum of the main effect and the interaction effect, is not statistically significant from zero. The test statistics for the combined effect are not shown in the report and are available upon request.

<sup>47</sup> This represents the combined effect—the sum of the main effect (e.g., the likelihood of participation for the relevant group versus the reference group) and the interaction effect (e.g., the change in the likelihood of participation between 1997 and 2006 for the relevant group versus the change for the reference group).

native-born parents. However, in 2006, only native-born children with authorized immigrant parents were more likely to participate than the reference group (combined effect of 4.1 percentage points, not shown in table).

Results also suggest that take-up rates of immigrants vary by the type of state in which they reside. We compared those eligible for WIC who lived in traditional immigrant-receiving states, states with rapidly-growing immigrant populations, and states with slower-growing immigrant populations. Among mothers eligible for WIC from traditional immigrant-receiving states, we found that unauthorized immigrant mothers were 5.7 percentage points more likely to participate in WIC in 2006 than in 1997 compared with native-born mothers, but at the end of the study period, they were not more likely to participate than their native-born peers. We also found that among mothers eligible for WIC from states with rapidly-growing immigrant populations, unauthorized immigrant mothers were 11.8 percentage points more likely to participate in 2006 than in 1997 compared with native-born mothers and they were more likely to participate than native-born mothers at the end of the study period (combined effect of 8.4 percentage points, not shown in table). We found that unauthorized immigrant mothers from states with slower-growing immigrant populations were 12.1 percentage points more likely to participate in 1997 than their native-born peers, but we found no evidence that they were more likely to participate than native-born mothers at the end of the study period (combined effect not shown in table). We also found that authorized immigrant mothers in states with slower-growing immigrant populations were 8.8 percentage points more likely to participate in WIC in 2006 than native-born mothers, but we did not find differences for these mothers in the other states.

For children eligible for WIC from traditional immigrant-receiving states, we found that native-born children with authorized immigrant parents and those with unauthorized immigrant parents were more likely to participate in 2006 than in 1997 compared with native-born children with native-born parents (7.9 percentage points and 9.6 percentage points, respectively). Despite the faster growth in take-up rates, neither of the two groups was more likely to take-up WIC than the reference group in 2006 (combined effects not shown in table). Native-born children of unauthorized immigrant parents in states with rapidly-growing immigrant populations were more likely than native-born children of native-born parents to take-up WIC in 2006 (combined effect

of 4.7 percentage points, not show in table). Among authorized immigrant children eligible for WIC, we found that children in states with rapidly-growing immigrant populations were 28.9 percentage points more likely native-born children with native-born parents to participate in 1997, but at the end of the study period they were not more likely to participate in WIC than the reference group (combined effect not shown in table).



**TABLE 31. Estimated Relationship between WIC Take-up of Breastfeeding and Postpartum Mothers Eligible for WIC and Immigrant Status, Change between 1997–1998 and 2005–2006 (weighted)**

	All States		Traditional Immigrant-Receiving States <sup>1</sup>		States with Rapidly-growing Immigrant Populations <sup>2</sup>		States with Slower-growing Immigrant Populations	
	Coefficient	S.E.	Coefficient	S.E.	Coefficient	S.E.	Coefficient	S.E.
Immigrant Status (Native-born, reference)								
Unauthorized immigrant	-0.025	0.036	-0.043	0.045	-0.035	0.075	0.121	** 0.055
Authorized immigrant	0.018	0.015	0.007	0.024	0.004	0.042	0.026	0.045
State Immigrant Trends (States with Slower-growing Immigrant Populations, reference)								
Traditional immigrant-receiving state	-0.023	0.047						
States with rapidly-growing immigrant populations	-0.014	0.047						
Time * Immigrant Status (Native-born, reference)								
Unauthorized immigrant*2005-2006	0.064	*** 0.022	0.057	*** 0.013	0.118	* 0.067	-0.077	0.062
Authorized immigrant*2005-2006	0.036	* 0.020	0.032	0.020	0.037	0.062	0.062	0.052
Time * State Immigrant Trends (States with Slower-growing Immigrant Populations, reference)								
Traditional immigrant-receiving state*2005-2006	0.065	0.051						
States with rapidly-growing immigrant populations*2005-2006	0.003	0.065						
State Economic and Demographic Conditions								
Unemployment Rate	0.029	* 0.018	0.082	* 0.037	0.008	0.028	0.018	0.023
Poverty Rate	-0.003	0.006	-0.014	0.014	0.002	0.007	0.001	0.006
Family Characteristics <sup>3</sup>								
Race (White, reference)								
Asian	0.012	0.022	0.022	0.023	-0.062	0.071	0.062	** 0.029
Black	0.004	0.019	0.012	0.028	0.006	0.035	-0.001	0.039
Hispanic	0.013	0.023	0.025	0.032	-0.018	0.054	0.004	0.042
Other	-0.070	0.049	0.053	* 0.023	-0.094	0.084	-0.092	0.073
Age of mother	-0.001	0.001	-0.001	0.001	-0.003	0.002	-0.001	0.002
Family structure (Two-parent, reference)								
Single-parent	0.026	** 0.012	0.005	0.012	0.046	* 0.026	0.046	* 0.024
Mother's education (More than high school degree, reference)								
Less than high school	0.020	0.016	0.036	* 0.017	0.021	0.033	-0.010	0.041
High school	0.025	0.016	0.028	0.019	0.047	0.035	-0.004	0.034
Number of adults in household	-0.015	* 0.009	-0.029	0.015	0.026	* 0.014	-0.032	** 0.012
Number of children in household	-0.004	0.005	-0.010	0.008	0.003	0.009	0.000	0.010
Year (1997-1998, reference)								
2005-2006	-0.021	0.050	0.065	** 0.022	-0.010	0.037	-0.018	0.050
Number of observations	4,796		1,995		1,468		1,333	

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**Notes:** \* = p<.1; \*\* = p<.05; \*\*\* = p<.01. Models are weighted using survey weights provided in the CPS and standard errors have been adjusted to account for mothers appearing in multiple years of data.

1. Traditional immigrant-receiving states include California, New York, Texas, Florida, Illinois, and New Jersey.

2. States with rapidly-growing immigrant populations include, Alabama, Arizona, Arkansas, Colorado, Delaware, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Minnesota, Mississippi, Nebraska, Nevada, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Utah, Washington

3. For mother characteristics, when there is no mother in the household, the father's information is used, and when there is no father, the household head's information is used.

TABLE 32. Estimated Relationship between WIC Take-up of Children Ages 0–4 Eligible for WIC and Immigrant Status, Change between 1997–1998 and 2005–2006 (weighted)

	All States		Traditional Immigrant-Receiving States <sup>1</sup>		States with Rapidly-growing Immigrant Populations <sup>2</sup>		States with Slower-growing Immigrant Populations	
	Coefficient	S.E.	Coefficient	S.E.	Coefficient	S.E.	Coefficient	S.E.
Immigrant Status (Native-born, native-born parents, reference)								
Unauthorized immigrant	-0.040	0.062	-0.014	0.107	-0.110	0.091	0.096	0.243
Authorized immigrant	-0.011	0.066	-0.072	0.076	0.289	** 0.132	-0.068	0.130
Native-born, authorized immigrant parents only	-0.012	0.014	-0.038	** 0.012	0.047	0.058	-0.014	0.037
Native-born, any unauthorized immigrant parents	-0.030	0.031	-0.054	0.039	0.002	0.049	0.044	0.068
Native-born, unknown	0.053	0.062	-0.036	0.061	0.211	** 0.095	0.276	0.196
State Immigrant Trends (States with Slower-growing Immigrant Populations, reference)								
Traditional immigrant-receiving state <sup>1</sup>	-0.004	0.021						
States with rapidly-growing immigrant populations <sup>2</sup>	0.024	0.038						
Time * Immigrant Status (Native-born with native-born parents, reference)								
Unauthorized immigrant*2005-2006	0.041	0.099	0.052	0.146	0.108	0.171	-0.120	0.270
Authorized immigrant*2005-2006	-0.002	0.074	0.023	0.086	-0.235	0.154	0.097	0.174
Native-born, authorized immigrant parents only * 2005-2006	0.052	** 0.023	0.079	** 0.029	0.028	0.065	0.012	0.053
Native-born, any unauthorized immigrant parents * 2005 - 2006	0.048	** 0.018	0.096	*** 0.011	0.045	0.042	-0.118	0.075
Native-born, unknown*2005-2006	0.000	0.072	0.109	0.062	-0.224	* 0.109	-0.259	0.239
Time * State Immigrant Trends (States with Slower-growing Immigrant Populations, reference)								
Traditional immigrant-receiving state*2005-2006	0.095	*** 0.033						
States with rapidly-growing immigrant populations*2005-2006	-0.027	0.040						
State Economic and Demographic Conditions								
Unemployment Rate	0.019	** 0.007	0.026	** 0.008	0.017	0.013	0.012	0.013
Child Poverty Rate	-0.002	** 0.001	-0.001	0.001	-0.002	0.001	-0.001	0.001
Family Characteristics <sup>3</sup>								
Race (White, reference)								
Asian	0.031	* 0.018	0.057	** 0.018	-0.030	0.041	0.051	0.055
Black	0.001	0.014	0.042	** 0.010	0.013	0.029	-0.052	*** 0.011
Hispanic	0.020	0.017	0.049	* 0.022	-0.050	0.033	0.049	* 0.025
Other	0.017	0.027	0.040	0.060	0.008	0.037	0.003	0.048
Age of mother	0.001	0.001	0.002	0.002	0.000	0.001	0.000	0.001
Age of child	-0.094	*** 0.003	-0.090	*** 0.004	-0.097	*** 0.005	-0.098	*** 0.007
Family structure (Two-parent, reference)								
Single-parent	0.037	*** 0.011	0.011	0.011	0.055	*** 0.016	0.056	*** 0.019
No parents	-0.015	0.018	-0.018	0.023	0.001	0.037	-0.019	0.038
Mother's education (More than high school degree, reference)								
Less than high school	0.034	*** 0.012	0.053	** 0.014	0.022	0.023	0.012	0.022
High school	0.020	** 0.008	0.034	** 0.009	0.008	0.017	0.014	0.017
Number of adults in household	-0.011	*** 0.004	-0.008	0.004	-0.008	0.009	-0.017	*** 0.006
Number of children in household	-0.037	*** 0.004	-0.047	*** 0.003	-0.030	*** 0.006	-0.030	*** 0.007

Year (1997-1998, reference)									
2005-2006	-0.021	0.017	0.063	*	0.028	-0.041	0.044	-0.014	0.021
Number of observations	35,996		15,167		10,965		9,864		

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**Notes:** \* = p<.1; \*\* = p<.05; \*\*\* = p<.01 Models are weighted using survey weights provided in the CPS and standard errors have been adjusted to account for children appearing in multiple years of data.

1. Traditional immigrant-receiving states include California, New York, Texas, Florida, Illinois, and New Jersey.
2. States with rapidly-growing immigrant populations include, Alabama, Arizona, Arkansas, Colorado, Delaware, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Minnesota, Mississippi, Nebraska, Nevada, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Utah, Washington
3. For mother characteristics, when there is no mother in the household, the father's information is used, and when there is no father, the household head's information is used.

## **NSLP**

As with WIC, the demographic composition of children eligible for free lunches remained relatively stable between the two periods examined in this study, 1994 and 2006.<sup>48</sup> There were larger changes among children eligible for reduced-price lunches. In both the 1994 and 2006 cohorts, a very high proportion of the children eligible for free lunches (91.8 percent and 92.1 percent) and reduced-price lunches (94.5 percent and 92.3 percent, respectively) were native-born. Of those who were native-born, between 1994 and 2006, there were increases in the shares of children with authorized and unauthorized immigrant parents and a comparable decline among those with native-born parents. The largest share (42.5 percent in both cohorts) of all children lived in traditional immigrant-receiving states, followed by states with rapidly-growing immigrant populations.

Nearly half of the children who were eligible for free lunches were whites in the 1994 cohort (48.3 percent), followed by Hispanics and blacks. Between these two periods, the share of white children decreased (7.3 percentage points) whereas that of Hispanic children increased (6.9 percentage points). Less than half of children lived in a single-parent household (47.2 percent) in the 1994 cohort; however, the share increased about 5 percentage points in the 2006 cohort. The majority of the mothers had less than a college degree in the 1994 cohort. This pattern persisted in the 2006 cohort; however, the share of mothers with some college degree increased from 29.5 to 33.3 percent.

As for children who were eligible for reduced-price lunches, more than half of the children were white (64.1 percent), followed by Hispanics and blacks in the 1994 cohorts. The share of children that were white decreased by 14.2 percentage points in the 2006 cohort and the share of Hispanic children increased by 11 percentage points. Nearly three-quarters of children lived in a two-parent household (72.9 percent) in the 1994 cohort. This share decreased by about 11 percentage points in the 2006 cohort. The majority of the mothers had less than a college degree in the 1994 cohort. The share of parents with some college increased from 38.2 to 41.6 percent in the 2006 cohort.

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<sup>48</sup> “1994” in this section refers to the 1994–1995 period.

**TABLE 33. Demographic Characteristics of Children ages 5–18 Eligible for Free and Reduced-Price Lunches, 1994–1995 and 2005–2006 (weighted)**

	Free Lunches		Reduced-Price Lunches	
	1994–1995	2005–2006	1994–1995	2005–2006
Immigrant Status				
Unauthorized	3.3%	4.3%	2.3%	4.1%
Authorized	4.9%	3.7%	3.2%	3.6%
Native-born with native-born parent	78.9%	72.9%	81.7%	70.2%
Native-born with authorized immigrant parents only	9.6%	11.6%	10.1%	15.7%
Native born with any unauthorized immigrant parents	2.5%	6.4%	2.4%	5.7%
Native born, unknown	0.8%	1.2%	0.3%	0.6%
State Immigrant Characteristics				
Traditional immigrant-receiving states <sup>1</sup>	42.5%	42.5%	38.2%	42.7%
States with rapidly-growing immigrant populations <sup>2</sup>	29.4%	31.8%	34.5%	33.4%
Rest of the nation	28.1%	25.7%	27.3%	24.0%
State Economic Conditions				
Unemployment rate	6.0	5.0	5.8	4.9
Child poverty rate	18.7	17.5	17.9	17.2
Family Characteristics <sup>3</sup>				
Race				
Asian	3.4%	3.3%	3.6%	3.3%
Black	24.8%	24.4%	14.1%	16.8%
Hispanic	21.6%	28.5%	16.9%	27.9%
White	48.3%	41.0%	64.1%	49.9%
Other	1.9%	2.7%	1.3%	2.2%
Age of mother	37.1	38.0	37.6	38.3
Age of child	11.1	11.4	11.2	11.4
Family structure				
Single-parent	47.2%	51.6%	22.6%	34.3%
Two-parents	43.0%	37.9%	72.9%	61.4%
No parents, other adults in household	9.9%	10.5%	4.5%	4.3%
Mother's marital status				
Married	49.1%	44.3%	76.9%	65.6%
Not married	50.9%	55.7%	23.1%	34.4%
Mother's education				
Less than high school	35.4%	31.9%	19.0%	21.4%
High school	35.0%	34.8%	42.8%	36.9%
College	29.5%	33.3%	38.2%	41.6%
Household size	4.8	4.6	4.7	4.7
Number of adults in household	2.0	2.0	2.2	2.1
Number of children in household	2.8	2.7	2.5	2.5
Number of Observations	28,981	32,101	8,321	12,526

1. Traditional immigrant-receiving states include, California, New York, Texas, Florida, Illinois, and New Jersey

2. States with rapidly-growing immigrant populations include, Alabama, Arizona, Arkansas, Colorado, Delaware, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Minnesota, Mississippi, Nebraska, Nevada, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Utah, Washington

3. For mother characteristics, when there is no mother in the household, the father's information is used, and when there is no father, the household head's information is used.

Examining results from the linear multivariate regression models, we found some evidence that unauthorized immigrant children participated at different rates in the NSLP than native-born children with native-born parents (Tables 34 and 35). In 1994, we found that among all children eligible for free lunches, unauthorized immigrant children were no more or less likely to participate than native-born children with native-born parents; however, they were 4.7 percentage points less likely to participate in 2006 than in 1997 compared with native-born children with native-born parents; in 2006, they were 2.9 percentage points less likely to participate in NSLP than native-born children with native-born parents (combined effect not shown in table). In contrast, among children eligible for reduced-price lunches, results indicate that unauthorized immigrant children were 12.7 percentage points more likely to participate in reduced-price lunches than native-born children with native-born parents in 1994, but they were no more or less likely to participate than native-born children with native-born parents in 2006 (combined effect not shown in table).

There is also some evidence that native-born children with unauthorized immigrant parents participate in the NSLP at different rates than native-born children with native-born parents, though these findings only hold for children eligible for free lunches. Among children eligible for free lunches, we found that native-born children with unauthorized immigrant parents were 8.6 percentage points more likely to participate in 1994 than native-born children with native-born parents. This relationship changed over time, as native-born children with unauthorized immigrant parents were 14.9 percentage points less likely to participate in 2006 than in 1994 compared with native-born children with native-born parents, and at the end of the study period, they were 6.2 percentage points less likely than native-born children with native-born parents to participate in NSLP (combined effect not shown in table).

We find little evidence that authorized immigrant children or native-born children with authorized immigrant parents participate at higher rates than native-born children with native-born parents. Among children eligible for free lunches, we found that native-born children with authorized immigrant parents were 8.6 percentage points more likely than native-born children with native-born parents to participate in 1994, but were 3.8 percentage points less likely to participate in 2006 than native-born children with native-born parents (combined effect not

shown in table). We found no other differences in NSLP take-up rates between native-born children with authorized immigrant parents and native-born children with native-born parents.

We also find some evidence that NSLP take-up among children of immigrants differs from that of children with native-born parents based on the types of states in which they reside (traditional immigrant-receiving states, states with rapidly-growing immigrant populations, and states with slower-growing immigrant populations). For children eligible for Free Lunches from states with traditional immigrant-receiving states, we found that unauthorized immigrant children were 4.3 percentage points less likely to participate in 2006 than native-born children with native-born parents (combined effect not shown). In contrast, for children eligible for reduced-price meals from states with traditional immigrant-receiving states, we were that unauthorized immigrant children were 15.5 percentage points more likely to participate in 2006 than native-born children with native-born parents (combined effect not shown). For children eligible for reduced-price meals from states with slower-growing immigrant populations, we were that unauthorized immigrant children were 27.2 percentage points more likely to participate in 1994 than children with native-born parents, but in 2006 they were not more likely to participate than native-born children with native-born parents (combined effect not shown). We find no other differences in take-up rates for unauthorized immigrant children by type of state.

We also find some evidence that there are state differences in take-up rates between native-born children with unauthorized immigrant parents and native-born children with native-born parents. Among children eligible for Free Lunches from traditional immigrant-receiving states, we found that native-born children with unauthorized immigrant parents were 10.4 percentage points more likely to participate in 1994 than native-born children with native-born parents. We found that this relationship does not hold over time, as native-born children with unauthorized immigrant parents were 5.2 percentage points less likely to participate in 2006 than native-born children with native-born parents (combined effect not shown). Similarly, we found that among children eligible for Free Lunches from states with slower-growing immigrant populations, native-born children with unauthorized immigrant parents were 8.8 percentage points less likely to participate in 2006 than native-born children with native-born parents (combined effect not shown).

We find evidence of differences in take-up rates by type of state for native-born children of unauthorized immigrant parents eligible for reduced-price meals in 1994, but not in 2006. Among children from states with rapidly-growing immigrant populations, we found that native-born children with unauthorized immigrant parents were 14.0 percentage points more likely to participate in 1994 than children with native-born parents, but that in 2006, they were not more likely to participate than the reference group (combined effect not shown). Similarly, for children from slower-growing immigrant states, we found that native-born children with unauthorized immigrant parents were 25.2 percentage points more likely to participate in 1994 than native-born children with native-born parents, but that in 2006, they were not more likely to participate than the reference group (combined effect not shown).

There is modest evidence that take-up rates differ by type of state for authorized immigrant children and native-born children with authorized immigrant parents. Among children eligible for reduced-price lunches from traditional immigrant-receiving states, we found that authorized immigrant children were 10.3 percentage points more likely to participate in 1994 than native-born children with native-born parents, but that in 2006, they were not more likely to participate than the reference group (combined effect not shown). Similarly, we found that among children eligible for free lunches, authorized immigrant children from traditional immigrant-receiving states were 5.6 percentage points more likely to participate in 1994 than native-born children with native-born parents, but that in 2006, they were not more likely to participate than the reference group (combined effect not shown). We found that among children eligible for Free Lunches in traditional-immigrant-receiving states, native-born children with authorized immigrant parents were 4.4 percentage points less likely to participate in 2006 than native-born children with native-born parents (combined effect not shown).



**TABLE 34. Estimated Relationship between Free Lunch Take-up of Children Ages 5–18 Eligible for Free Lunches and Immigrant Status, Change Between 1994–1995 and 2005–2006 (weighted)**

	All States		Traditional Immigrant-Receiving States <sup>1</sup>		States with Rapidly-growing Immigrant Populations <sup>2</sup>		States with Slower-Growing Immigrant Populations						
	Coefficient	S.E.	Coefficient	S.E.	Coefficient	S.E.	Coefficient	S.E.					
<b>Immigrant Status (Native-born, native-born parents, reference)</b>													
Unauthorized immigrant	0.018	0.020	0.042	0.022	0.022	0.079	-0.017	0.087					
Authorized immigrant	0.028	0.021	0.056	*	0.023	-0.014	0.061	0.023	0.059				
Native-born, authorized immigrant parents only	0.024	0.016	0.031		0.023	0.034	0.040	0.021	0.046				
Native-born, any unauthorized immigrant parents	0.086	***	0.019		0.021	0.025	0.056	0.075	0.045				
Native-born, unknown	-0.111	***	0.037		0.042	-0.184	0.110	-0.148	0.102				
<b>State Immigrant Trends (States with Slower-Growing Immigrant Populations, reference)</b>													
Traditional immigrant-receiving state <sup>1</sup>	0.059	0.046											
States with rapidly-growing immigrant populations <sup>2</sup>	0.097	**	0.040										
<b>Time * Immigrant Status (Native-born with native-born parents, reference)</b>													
Unauthorized immigrant*2005-2006	-0.047	*	0.023		-0.085	**	0.023	-0.010	0.077	0.061	0.089		
Authorized immigrant*2005-2006	-0.014		0.019		-0.032		0.020	0.042	0.067	-0.047	0.058		
Native-born, authorized immigrant parents only * 2005-2006	-0.062	***	0.018		-0.075	**	0.021	-0.052	0.042	-0.038	0.069		
Native-born, any unauthorized immigrant parents * 2005 - 2006	-0.149	***	0.019		-0.156	***	0.021	-0.060	0.053	-0.163	**	0.060	
Native-born, unknown*2005-2006	0.193	***	0.033		0.164	***	0.038	0.279	**	0.101	0.246	**	0.095
<b>Time * State Immigrant Trends (States with Slower-Growing Immigrant Populations, reference)</b>													
Traditional immigrant-receiving state*2005-2006	-0.026	0.042											
States with rapidly-growing immigrant populations*2005-2006	-0.031	0.040											
<b>State Economic and Demographic Conditions</b>													
Unemployment Rate	-0.018	0.013			-0.051	*	0.023	-0.006	0.011	0.004	0.019		
Child Poverty Rate	-0.001	0.001			-0.004	**	0.002	0.001	0.001	0.000	0.001		
<b>Family Characteristics<sup>3</sup></b>													
<b>Race (White, reference)</b>													
Asian	0.048	**	0.020		0.067		0.038	0.015	0.053	0.091	***	0.031	
Black	0.139	***	0.013		0.146	***	0.027	0.149	***	0.012	0.104	***	0.015
Hispanic	0.098	***	0.012		0.114	***	0.016	0.053	*	0.026	0.103	***	0.018
Other	0.086	***	0.016		0.129	***	0.028	0.030		0.024	0.135	***	0.029
Age of mother	0.001	*	0.000		0.001	***	0.000	0.001	*	0.001	-0.001		0.001
Age of child	-0.007	***	0.001		-0.008	**	0.002	-0.006	***	0.001	-0.007	***	0.001
<b>Family structure (Two-parent, reference)</b>													
Single-parent	0.060	***	0.010		0.056	**	0.017	0.070	***	0.014	0.061	***	0.013
No parents	-0.050	***	0.014		-0.075	***	0.015	-0.010		0.025	-0.047	***	0.016
<b>Mother's education (More than high school degree, reference)</b>													
Less than high school	0.114	***	0.010		0.128	***	0.018	0.083	***	0.016	0.117	***	0.011
High school	0.067	***	0.008		0.082	***	0.012	0.046	***	0.015	0.064	***	0.010
Number of adults in household	-0.014	***	0.004		-0.012	*	0.005	-0.010	**	0.004	-0.016		0.012
Number of children in household	0.029	***	0.003		0.034	***	0.004	0.024	***	0.004	0.029	***	0.006
<b>Year (1994-1995, reference)</b>													
2005-2006	0.291	***	0.031		0.193	**	0.059	0.258	***	0.028	0.301	***	0.028

Number of observations	61,070	25,305	17,266	18,499
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**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**Notes:** \* =  $p < .1$ ; \*\* =  $p < .05$ ; \*\*\* =  $p < .01$  Models are weighted using survey weights provided in the CPS and standard errors have been adjusted to account for children appearing in multiple years of data.

1. Traditional immigrant-receiving states include California, New York, Texas, Florida, Illinois, and New Jersey.
2. States with rapidly-growing immigrant populations include, Alabama, Arizona, Arkansas, Colorado, Delaware, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Minnesota, Mississippi, Nebraska, Nevada, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Utah, Washington
3. For mother characteristics, when there is no mother in the household, the father's information is used, and when there is no father, the household head's information is used.

**TABLE 35. Estimated Relationship between Reduced-Price Lunch Take-up of Children Ages 5–18 Eligible for Reduced-Price Lunches and Immigrant Status, Change Between 1994–1995 and 2005–2006 (weighted)**

	All States		Traditional Immigrant-Receiving States <sup>1</sup>		States with Rapidly-growing Immigrant Populations <sup>2</sup>		States with Slower-Growing Immigrant Populations	
	Coefficient	S.E.	Coefficient	S.E.	Coefficient	S.E.	Coefficient	S.E.
<b>Immigrant Status (Native-born, native-born parents, reference)</b>								
Unauthorized immigrant	0.127	** 0.060	0.126	0.073	0.058	0.137	0.272	** 0.103
Authorized immigrant	0.093	0.056	0.103	* 0.049	0.213	0.242	0.011	0.132
Native-born, authorized immigrant parents only	0.029	0.024	0.021	0.023	0.055	0.077	0.051	0.082
Native-born, any unauthorized immigrant parents	0.084	0.052	0.050	0.055	0.140	* 0.074	0.252	* 0.136
Native-born, unknown	0.141	0.134	0.296	* 0.142	-0.357	*** 0.094	-0.234	*** 0.076
<b>State Immigrant Trends (States with Slower-Growing Immigrant Populations, reference)</b>								
Traditional immigrant-receiving state <sup>1</sup>	0.001	0.032						
States with rapidly-growing immigrant populations <sup>2</sup>	0.027	0.030						
<b>Time * Immigrant Status (Native-born with native-born parents, reference)</b>								
Unauthorized immigrant*2005-2006	-0.086	0.060	0.029	0.062	-0.134	0.169	-0.331	** 0.124
Authorized immigrant*2005-2006	-0.086	0.062	-0.050	0.040	-0.147	0.257	-0.138	0.190
Native-born, authorized immigrant parents only * 2005-2006	-0.013	0.022	0.028	0.019	-0.111	* 0.062	-0.025	0.092
Native-born, any unauthorized immigrant parents * 2005 - 2006	-0.075	0.083	0.001	0.097	-0.162	0.111	-0.325	* 0.175
Native-born, unknown*2005-2006	-0.187	* 0.110	-0.228	0.116	0.197	0.180	-0.057	0.076
<b>Time * State Immigrant Trends (States with Slower-Growing Immigrant Populations, reference)</b>								
Traditional immigrant-receiving state*2005-2006	-0.109	*** 0.032						
States with rapidly-growing immigrant populations*2005-2006	-0.028	0.036						
<b>State Economic and Demographic Conditions</b>								
Unemployment Rate	-0.014	* 0.007	0.000	0.010	-0.030	** 0.013	-0.017	0.013
Child Poverty Rate	0.000	0.001	-0.001	0.001	0.000	0.003	0.002	0.001
<b>Family Characteristics<sup>3</sup></b>								
<b>Race (White, reference)</b>								
Asian	-0.024	0.035	-0.076	* 0.036	-0.029	0.068	0.072	0.060
Black	0.166	*** 0.022	0.162	*** 0.024	0.191	*** 0.050	0.153	*** 0.036
Hispanic	0.174	*** 0.023	0.180	*** 0.030	0.137	** 0.049	0.135	*** 0.047
Other	0.080	0.050	-0.129	* 0.063	0.165	*** 0.053	0.095	0.100
Age of mother	-0.002	* 0.001	-0.001	0.001	-0.002	0.002	-0.003	0.002
Age of child	-0.005	*** 0.001	-0.010	*** 0.001	-0.002	0.002	-0.002	0.002
<b>Family structure (Two-parent, reference)</b>								
Single-parent	0.061	*** 0.014	0.086	** 0.023	0.040	0.029	0.055	** 0.019
No parents	-0.082	*** 0.028	-0.084	0.054	-0.081	** 0.036	-0.062	0.055
<b>Mother's education (More than high school degree, reference)</b>								
Less than high school	0.116	*** 0.018	0.139	*** 0.027	0.112	*** 0.033	0.095	* 0.054
High school	0.063	*** 0.013	0.098	** 0.026	0.045	** 0.019	0.047	* 0.025
Number of adults in household	-0.039	*** 0.009	-0.049	** 0.014	-0.033	** 0.014	-0.031	** 0.015

Number of children in household	0.013	**	0.005	0.004	0.008	0.017	0.011	0.017	*	0.009	
Year (1994-1995, reference)											
2005-2006	0.141	***	0.026	0.030	0.031	0.129	***	0.025	0.147	***	0.026
Number of observations	20,845			7,951		6,791		6,103			

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**Notes:** \* = p<.1; \*\* = p<.05; \*\*\* = p<.01 Models are weighted using survey weights provided in the CPS and standard errors have been adjusted to account for children appearing in multiple years of data.

1. Traditional immigrant-receiving states include California, New York, Texas, Florida, Illinois, and New Jersey.
2. States with rapidly-growing immigrant populations include, Alabama, Arizona, Arkansas, Colorado, Delaware, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Minnesota, Mississippi, Nebraska, Nevada, North Carolina, Oklahoma, Oregon, South Carolina, Tennessee, Utah, Washington
3. For mother characteristics, when there is no mother in the household, the father's information is used, and when there is no father, the household head's information is used.

## DISCUSSION

Unauthorized immigration and the low-income population of children in unauthorized immigrant families both increased rapidly during the study period. The results of this study reveal a concurrent increase in the number and share of unauthorized immigrant children and mothers as well as native-born children of unauthorized immigrant parents participating in the WIC and NSLP programs. Despite these increases, our study finds that unauthorized immigrants still make up a relatively small share of those participating in WIC and NSLP in 2006: 0.9 percent of WIC children, 12.2 percent of WIC mothers, 4.4 percent of children receiving free lunches, and 5.2 percent of children receiving reduced-price lunches. Native-born children of unauthorized immigrant parents make up somewhat larger shares of WIC participants (11.7 percent) and NSLP participants (6.7 percent of free lunch and 7.9 percent of reduced price lunch participants).

Results from a demographic decomposition analysis reveal that changes in the numbers of eligible children and changes in take-up rates (e.g., participants divided by eligible children) had a stronger impact on changes in the take-up rate (e.g., participants divided by children ages 0 to 4) for children in WIC and NSLP compared to changes in the demographic composition of children (immigrant status of the child and parents). Thus it does not appear that the increase in immigrant populations across the country have substantially affected take-up rates for children in these programs. In contrast, we found that among mothers, changes in the share of mothers who were foreign- versus native-born had a stronger effect on WIC take-up rate changes than changes in eligibility and take-up rates. The increase in the number of immigrant mothers—particularly the unauthorized—may have led to a slight *increase* in the WIC take-up rate, perhaps because low-income unauthorized immigrant mothers are ineligible for TANF, SNAP, or other means-tested benefits with limited immigrant eligibility.

We found mixed evidence that unauthorized immigrants were more likely than the native-born to take-up WIC and NSLP. For WIC children, we found no differences in the likelihood of take-up between unauthorized immigrant children and native-born children in 2006. But we found that unauthorized immigrant mothers were *more* likely to take-up WIC than native-born mothers in 2006. We found that unauthorized immigrant children were *less* likely to take-up free lunches in

2006 than native-born children with native-born parents, particularly in traditional immigrant-receiving states. In contrast, we found that unauthorized immigrant children were more likely to take-up reduced-price lunches than native-born children with native-born parents in 2006 but only in traditional immigrant-receiving states.

Among native-born children of unauthorized immigrant parents, we found that they were more likely to take-up WIC in 2006 than in 1997 compared with native-born children of native-born parents, but in 2006 they were no more or less likely to take-up WIC than native-born children of native-born parents. Only native-born children of unauthorized immigrant parents in states with rapidly-growing immigrant populations were more likely than native-born children of native-born parents to take-up WIC in 2006. While native-born children of unauthorized immigrant parents were more likely to take-up free lunches in 1994, their take-up rates actually decreased over time and in 2006 they were less likely to take-up free lunches compared with native-born children of native-born parents. These findings are mixed, but they do not suggest significant chilling effects on unauthorized immigrants' take-up of the two programs (that have been found in other public benefit programs), even when controlling for other factors such as race, ethnicity, geographic location, and income.

Taken together, our findings suggest that immigrants' fears about participating in TANF, SNAP and other programs subject to immigrant status limitations do not extend to benefits like WIC and NSLP that do not include these restrictions. Neither would it seem that unauthorized immigrant parents are afraid to apply for their citizen children (or their unauthorized immigrant children or even themselves for that matter) for WIC and NSLP. The different settings in which parents apply for these benefits—health clinics for WIC and schools for NSLP—appear to have insulated immigrants from the fears, concerns, and access barriers noted for welfare offices and other setting in which food stamp and TANF benefits are handled. The message that immigrant status is not a barrier to WIC or NSLP receipt appears to have gotten through to immigrant communities across the country—in states with smaller and rapidly growing populations as well as in the traditional immigrant destinations. WIC and NSLP appear to be important food assistance programs for a population of immigrant families that has suffered disproportionately from the current economic crisis (Orrenius and Zavodny 2009), and whose other access to the

nutritional safety net might be curbed (Fix and Passel 2002; Henderson, Capps, and Finegold 2008).

These findings might differ were data on the recent recessionary period included. Increasing poverty among families overall has greatly increased WIC and NSLP participation. WIC participation has increased from 8.3 million in 2007 to a record 9.1 million in 2009 and NSLP participation has increased from 17.7 to 19.4 million.<sup>49</sup> Higher unemployment rate for immigrants than the native-born might suggest a disproportionate increase in the number of needy children of immigrants—perhaps resulting in a disproportionately high increase in program participation for this population. Yet since 2006, the numbers of unauthorized immigrants and immigrants overall have stabilized, if not declined. Slower growth or decline in immigrant populations could slow the trend toward increasing shares of immigrant mothers and children in the populations eligible for and participating in WIC and NSLP. Nonetheless, the population of native-born children with immigrant parents continues to grow rapidly despite slowdowns in immigration because these native-born children continue to age into NSLP-eligible populations in greater numbers, and will continue to do so unless birth rates among immigrants decline substantially. Increasing poverty in immigrant families together with population momentum for their children is likely to continue leading to higher participation of children of immigrants in these two important nutrition programs for the foreseeable future. It will be important to measure what the impact of the recession and recovery periods was for the different sub-populations of the WIC and NSLP program (particularly for native- and immigrant-families) in terms of eligibility and take-up rates.

WIC and NSLP are clearly important safety net programs for immigrant families with children. While other safety-net programs such as TANF and SNAP include restrictions on the eligibility of many immigrants (especially the unauthorized), WIC and NSLP remain open to all income-eligible children regardless of their immigrant status or that of their parents. Their function as safety nets for vulnerable children becomes all the more important during times of severe economic crisis like the present. The high take-up of children of immigrants in these two

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<sup>49</sup> WIC program data available at <http://www.fns.usda.gov/pd/wisummary.htm> retrieved on February 18, 2010. NSLP program data available at <http://www.fns.usda.gov/pd/slsummar.htm> retrieved on February 18, 2010.

programs suggests that they are successful in alleviating poverty and hardship among diverse groups of American families.



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## TECHNICAL APPENDICES

### Appendix A. Simulation of WIC Eligibility and Participation

Eligibility and participation estimates in the report are based on output from the Transfer Income Model (TRIM3) microsimulation model, which the Urban Institute maintains and develops with primary funding from the Assistant Secretary for Planning and Evaluation, Department of Health and Human Services.<sup>50</sup> The input data for TRIM3 come from the Current Population Survey Annual Social and Economic Supplement (CPS-ASEC), which is collected each year in February, March, and April. The CPS-ASEC provides extensive data on income, employment, and demographic characteristics; the survey also collects data on participation in public programs including TANF, SNAP, Medicaid, WIC, and NSLP. TRIM3 first developed immigrant status assignments for the foreign-born population in the March 1995 (CY 1994) CPS-ASEC.

The CPS-ASEC has included WIC items since March 2001 (CY 2000)<sup>51</sup> and we were also able to analyze data on WIC participation that were collected on an experimental basis in the March 1998, 1999, and 2000 CPS-ASEC surveys, providing data on CY 1997 to 1999. The WIC data for these years are not part of the CPS-ASEC public use data, but can be downloaded from the Census website and merged with the main datasets. Thus CY 1997 is the baseline year for our WIC analyses.

Participation in means-tested programs such as TANF, SNAP, Medicaid, SCHIP, WIC, and NSLP is typically underreported in the CPS-ASEC and surveys. Enrollment totals from administrative data, in other words, are usually higher than the totals reported in the surveys (Wheaton, 2007). Some of the people who report program participation in the surveys, moreover, appear to be ineligible for those programs, on the basis of the information they provided about income and other eligibility criteria. This is sometimes described as “overreporting.”

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<sup>50</sup> For additional information on TRIM3, see <http://trim3.urban.org/T3Technical.php>.

<sup>51</sup> For income, program participation, and many other items, the CPS-ASEC provides data for the previous calendar year. For example, the March 2007 CPS-ASCE provides data for CY 2006, the endpoint for our study.

TRIM3 corrects for both underreporting and overreporting by applying eligibility criteria to the CPS-ASEC records and simulating participation decisions so totals come close to targets from administrative data. Most of the information on the CPS-ASEC is for the previous year. The TRIM3 model creates a simulated monthly record of employment, based on national employment totals and survey responses on the number of weeks of full-time and part-time work and the number of spells of unemployment between working weeks. Monthly earnings are assumed to be proportional to hours worked; other assumptions are made in allocating various forms of unearned income.<sup>52</sup> This approach reproduces the income volatility that occurs in the real world, which would be missing if the simulation assumed reported income is distributed equally across the year.

To determine eligibility and benefits, the model acts as a caseworker would, applying state and national program rules to the simulated record of monthly income and employment. The program rules are drawn from databases that are updated annually. Participation in one program can confer eligibility in another program, as TANF, SNAP, and Medicaid do for WIC, and TANF and SNAP do for NSLP. Participation in one program can also preclude eligibility in another program, as is the case for SSI and TANF. To capture these complicated relationships, the simulations are run in a particular order, and output data from one program module is used as input data for the next.

The TRIM3 WIC module and our modifications to its outputs are based on several general principles and assumptions:

- Persons simulated as ineligible should not be simulated as participating.
- Persons simulated as eligible who explicitly report participation should be simulated as participating. “Explicitly” excludes responses imputed or allocated by the Census Bureau.

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<sup>52</sup> Unemployment compensation is distributed by weeks not working, with a one-month lag for some randomly chosen recipients. Workers compensation is also distributed by weeks not working for most recipients, but some are randomly selected to receive a lump sum payment. The number of months receiving child support and alimony is determined by a distribution based on findings from the Survey of Income and Program Participation (SIPP). Other types of unearned income are distributed evenly across the twelve months of the survey year.

- Other persons simulated as eligible should be simulated as participating so as to come close to average monthly targets based on administrative data, by state and person type (infants, other children, and mothers of infants).
- All other things equal, an eligible person for whom the Census Bureau imputes a “Yes” response is more likely to have participated in WIC than an eligible person for whom a “No” response is imputed, and an eligible person for whom a “No” response is imputed is more likely to have participated than a person for whom an explicit “No” response is recorded.
- Participation decisions should be simulated as consistent within the unit and across the months of the year, if the relevant variables are the same.

### **Modeling Eligibility**

We used the TRIM3 WIC module to estimate WIC eligibility for infants, older children, and mothers of infants. The key parameters modeled in TRIM3 are shown in Table A-1. To receive WIC benefits, individuals must be categorically eligible and meet the requirements for either income or adjunctive eligibility. Categorical eligibility for infants (age = 0), older children ( $0 < \text{age} \leq 4$ ), and mothers of infants is modeled in TRIM3. Mothers of infants are categorically eligible for twelve months postpartum if they breastfeed, and for six months if they do not. The CPS-ASEC does not provide any information on breastfeeding. To simulate the restriction on benefits for non-breastfeeding mothers, and with dates of birth unknown, we assumed that all children were born January 1 and drew a random number to determine eligibility from July through December. If the random number was below the threshold breastfeeding rates, we simulated the mother as eligible based on breastfeeding in the second six months after childbirth. The threshold breastfeeding rates differ by nativity (foreign- versus native-born) and region of residence (Northeast, Midwest, South, and West). The breastfeeding rates are based on analysis of 2003 data from the National Survey of Children’s Health.

Women are also categorically eligible if they are pregnant. TRIM3 pregnancy imputations are available for CY 2000-2006, but they miss pregnant mothers who live with eligible children or did not report coverage on the CPS-ASEC, and therefore account for only a small proportion of

the totals for pregnant mothers in the administrative data. We therefore decided not to use the pregnancy imputations for this report.

Income eligibility for WIC is based on monthly family income at or below 185 percent of federal poverty guidelines. The guidelines vary by family size and are higher for Alaska and Hawaii than for the rest of the states.

Adjunctive eligibility for WIC is based on participation in TANF, the Food Stamp Program (renamed the Supplemental Nutrition Assistance Program, SNAP, in October 2008), or Medicaid, as each of these programs is modeled in TRIM3. Strictly speaking, actual participation in these other programs is not required; documentation of eligibility for them is sufficient. In practice, most people provide proof of eligibility for TANF, SNAP, or Medicaid by presenting documentation of participation in these programs, and the adjunctive eligibility provisions are modeled on that basis.

Because TANF and SNAP eligibility normally ends far below 185 percent of poverty, most of the people with adjunctive eligibility for WIC are eligible based on participation in Medicaid. Some states set eligibility thresholds for Medicaid well above 185 percent of poverty; therefore, Medicaid is more likely to confer eligibility onto those with higher incomes. Participation in “Medicaid Expansion” CHIP programs confers adjunctive eligibility for WIC, but participation in separate (non-Medicaid) CHIP programs does not. Individuals who are not eligible for Medicaid themselves qualify for adjunctive eligibility for WIC if a pregnant or infant family member is participating in Medicaid. Adjunctive eligibility for WIC on the basis of a family member’s participation in TANF is not modeled in TRIM3.

TRIM3 estimates of Medicaid eligibility for CY 2004, 2005, and 2006 are currently available, but participation estimates are not. For purposes of adjunctive eligibility for WIC, we simulated children ages 1 through 4 who were simulated to be eligible for Medicaid as participating in that program if a uniform random number was below 0.847. Similarly, we simulated Medicaid-eligible infants as participating if the random number was below 0.838, and we simulated

Medicaid-eligible mothers of infants as participating if the random number was below 0.775. These thresholds are based on the estimated Medicaid participation rate for each group in 2003.

TRIM3 does not model the nutritional risk criteria for WIC eligibility. USDA program staff suggested that few people who meet the other eligibility criteria are excluded on this basis.

The CPS-ASEC WIC questions are not administered if there is no one in the household who could have been demographically eligible, or if annual family income is above a low-income threshold. We did not restrict eligibility or participation based on the income screen because some families with annual income above eligibility limits may have lower incomes in particular months. A small number of people from such families are simulated as eligible for or participating in WIC.

**TABLE A-1. Key Program Rules for TRIM3 WIC and NSLP Simulations**

	WIC	NSLP
Demographic Requirements	- Age 0-4 OR - mother of an infant (age 0)	- Age 5-18
Income Eligibility	- ≤ 185% of federal poverty guidelines	- Free: ≤ 130% of federal poverty guidelines - Reduced-price: ≤ 185% of federal poverty guidelines
Adjunctive Eligibility	- TANF - SNAP - Medicaid (includes Medicaid Expansion CHIP programs but not Separate State CHIP programs)	- TANF - SNAP
Certification Period	- Infants: full year - Children: eligibility reassessed after six months of benefits - Mother of infant: eligible for one year after delivery if breastfeeding, six months if not breastfeeding	- School year (eligibility assessed in September and January)

We compared our eligibility estimates to trends in the demographically and income-eligible population—children ages 0 to 4 and mothers of an infant age 14 to 45 with family incomes below 185 percent of FPL. The eligibility trends for children by immigrant status presented in table 2 follow the demographic trends in table F-1. In 1997, children with foreign-born parents represented a similar share of the population eligible for WIC as their share of low-income children, 24 percent versus 25 percent. Similarly, in 2006, children of foreign-born parents



accounted for 29 percent of low-income children and 28 percent of children eligible for WIC. Similar to the trends among children, the eligibility trends for mothers (Table 5) follow the demographic trends for low-income mothers shown in table F-2. The foreign-born share of women eligible for WIC increased from 22 to 26 percent between 1997 and 2006; the increase mirrors the increase in the foreign-born share of low-income mothers for this period (from 22 to 26 percent).

### **Modeling Participation**

We modeled WIC participation, among those simulated as eligible by TRIM3, with SAS code developed specifically for this project. The code uses information from the simulation of WIC eligibility and from the administrative data for each year, state, and participant group. We combined the mothers shown in the administrative data as breastfeeding or postpartum into a single category for mother of infants. Our goal in modeling these decisions was to produce a simulated caseload that comes close to the state and national targets from the administrative data and accurately captures the characteristics of program participants.

In almost all contexts, someone with an explicit (not imputed) report of program participation will be simulated as participating, if simulated as eligible. If the totals for eligible participants are below the targets, as they usually are, some respondents with imputed responses, and some who explicitly said they did not participate, also will be simulated as participating. Because the TRIM3 simulations of WIC and NSLP use inputs from the simulations of TANF, SNAP, and Medicaid that correct for underreporting of participation in those programs, TRIM3 estimates simulate more people with adjunctive eligibility for WIC or NSLP than estimates that use unadjusted CPS-ASEC data on participation in the federal programs.

We developed the targets to which the TRIM3 enrollment estimates are aligned from enrollment totals in the U.S. Food and Nutrition Service (FNS) National Databank. The National Databank includes aggregate data by state and month on measures including program enrollment and spending. At our request, FNS prepared extracts of data for FY 1994 to FY 2007 from the following series:

- WIC enrollment, infants;

- WIC enrollment, children (ages 1 to 4);
- WIC enrollment, breastfeeding mothers;
- WIC enrollment, postpartum mothers (not breastfeeding);
- NSLP enrollment, free lunches; and
- NSLP enrollment, reduced-price lunches.

For consistency with the CPS-ASEC timeframe and universe, we calculated average monthly enrollment on a calendar year (rather than fiscal year) basis and dropped records for American Samoa, Guam, Puerto Rico, the Virgin Islands, and military families living outside the U.S. Because the CPS-ASEC does not include information on breastfeeding, we combined WIC enrollment totals for breastfeeding and postpartum mothers into a single category for mothers. Enrollees in tribal WIC programs are counted in their state of residence.

The CPS-ASEC WIC questions and variables are shown in Figures A-1 and A-2. In each year, we divided infants simulated as eligible for WIC into four categories based on the CPS-ASEC WIC variables:

- Explicit Yes
- Imputed Yes
- Imputed No
- Explicit No

Because the CPS-ASEC WIC data for 1997-1999 was not edited, no values were imputed for cases with responses that were recorded as blank, missing, or “don’t know.” We coded all such responses as Imputed Noes, which meant that there were no Imputed Yeses for these years. Households above 200 percent of poverty are not asked the WIC question, but some women in these households are simulated as eligible due to adjunctive eligibility or monthly income variation. We treated these cases as explicit Noes.

*Figure A-1. CPS-ASEC WIC Questions, March 2007*

**SWRWIC**

**At any time during 2006, (was/were) (you/ anyone in this household) on WIC, the Women, Infants, and Children Nutrition Program?**

- 1 Yes
- 2 No

**SWRW**

**Who received WIC for themselves or on behalf of a child?**

Enter all that apply, separate with commas

Probe: Anyone else?

Enter person's line number (1-16)

**Note:**

WIC questions are not asked if household does not include any children below age 5 or women age 15 to 45, or if family income is above low-income threshold (varies by family size)

**Figure A-2. CPS-ASEC WIC Public Use Variables, March 2007**

**Household:**

HRWICYN	WIC benefits received, anyone
0	Not in Universe
1	Yes
2	No
HRNUMWIC	Number of people in the household receiving WIC
0-16	

**Person:**

WICYN	WIC benefits received
0	Not in Universe
1	Yes
2	No
WICYNA	Allocation flag for WICYN
0	Not in universe or not imputed
1	Imputed

**Note:**

WIC receipt by infants or children is stored on record of female parent or guardian.

Table A-2 shows the distribution of simulated eligibles across the four response categories. The proportion of eligible children who live in households reporting WIC, either explicitly or by imputation, is consistently between 33 and 39 percent. The proportion of responses that are

imputed increased when the WIC questions became part of the regular CPS; this suggests that our code for 1997-1999 may not be capturing all the edits and imputations of the current Census procedures, or that the universe for the WIC questions was defined somewhat differently in the experimental period and now. The shift in the proportion with missing or imputed data reduces the proportion of eligible children who are explicit nonparticipants by about 10 percentage points.

The proportion of eligible mothers for whom WIC is reported is 49 percent or more, a higher rate than for children. Eligible mothers and infants have the same CPS-ASEC response, so a low rate of explicit reporting for older children (ages 1-4) may bring down the numbers for the combined group of children ages 0 to 4 shown in Table A-1.

We assumed that the initial participation decision for infants was made in January for the remainder of the year. Infants who were not eligible in January but became eligible at a later month were re-evaluated for participation for the remainder of the year.

To estimate participation for infants, we took the following steps:

1. Simulated all eligible infants as participating in all eligible months when the estimated average monthly number of eligible infants was below the state target for average monthly infant participation. [If this was not the case, we moved to step 2.]
2. Simulated participation in all eligible months for each infant simulated as eligible and explicitly reported to have participated to have done so. If the total of such infants for the state exceeded the average monthly target for infants in that state, we simulated all other infants (Imputed Yes, Imputed No, or Explicit No) as nonparticipants. [If this was not the case, we moved to step 3.]
3. We compared the state target with the total of Explicit and Imputed Yes responses. If the number of infants with either an Explicit Yes or an Imputed Yes was below the state target, we simulated all infants with a Yes response as participating. If the number of infants with an Explicit Yes was below the target, but the number with an Explicit or Imputed Yes was above the target, we simulated all Noes as not participating and drew a uniform random number for all Imputed Yeses. If the random number was less than or

equal to the number needed to hit the state-level target for infants, divided by the number of Imputed Yes infants, we simulated that infant as participating in all eligible months. If the random number was greater than that fraction, we simulated the infant as not participating in any eligible months. [If simulated participation was still below the target, we moved to step 4.]

4. We followed similar procedures to simulate participation among eligible infants with Imputed No and Explicit No responses as for Imputed Yes and Explicit Yes responses, with imputed Noes given priority.
5. A final set of edits to infant participation compared the number of infants simulated as ever participating with the CPS-ASEC household-level variable. If the simulated number was below the CPS-ASEC count, additional eligible infants, if any, were simulated as participating regardless of the state-level target.

To simulate the twelve-month certification period for infants, any infant simulated as participating in a particular month was simulated as participating in all subsequent months. Thus, some infants are simulated as participating for months in which they are “technically ineligible,” that is, when they would not be eligible based on that month’s information on family income and participation in TANF, SNAP, and Medicaid.

We assumed that eligible mothers of eligible infants made the same participation decision as their child. In some households, however, the mother is eligible for Medicaid, and therefore for WIC, when the infant is not eligible for either program. In these cases, we used a procedure similar to that described above for infants, simulating all eligible Explicit Yes mothers as participating and simulating participation decisions by other mothers by comparing cumulative simulated participation to the state-level targets. The cumulative totals included mothers already simulated as participating with their eligible infants. As with infants, we did a final check against the CPS-ASEC household-level WIC variable.

We assumed that eligible children ages 1 to 4 with eligible infant siblings make the same participation decision as the infants. For eligible children with no eligible infant siblings, we simulated children with Explicit Yes responses as participating and simulated participation

decisions among Imputed Yeses, Imputed Noes, and Explicit Noes by comparison with state targets. To simulate the six-month certification period for children in this age range, we simulated a child as participating in the initial month and the next five months, without regard to that month's family income or participation in TANF, SNAP, or Medicaid. We redetermined a child's income or adjunctive eligibility in what would be the seventh month of participation. If the child was eligible at that point, we simulated the child as participating for the remainder of the year. A child who was not eligible at redetermination might nonetheless requalify in a subsequent month if family income was lower or the child was simulated as enrolling in one of the programs conferring adjunctive eligibility.

**Table A-2. Children and Mothers Simulated as Eligible for WIC, by CPS-ASEC Response Group**

**Eligible Children**

Year	Response Group			
	Explicit Reporter	Imputed Reporter	Imputed Nonreporter	Explicit Nonreporter
1997	34%	0%	2%	64%
1998	36%	0%	2%	62%
1999	36%	0%	2%	62%
2000	35%	2%	9%	54%
2001	35%	3%	9%	53%
2002	33%	3%	10%	53%
2003	35%	3%	9%	53%
2004	34%	4%	10%	52%
2005	34%	2%	9%	54%
2006	32%	4%	12%	52%

**Eligible Mothers**

Year	Response Group			
	Explicit Reporter	Imputed Reporter	Imputed Nonreporter	Explicit Nonreporter
1997	49%	0%	2%	50%
1998	50%	0%	3%	48%
1999	57%	0%	1%	42%
2000	54%	3%	6%	37%
2001	51%	3%	7%	39%
2002	49%	3%	8%	41%
2003	54%	2%	7%	37%
2004	52%	3%	9%	35%
2005	49%	2%	8%	41%
2006	46%	4%	9%	40%

**Note:** All missing responses for 1997, 1998, and 1999 are coded as Imputed Nonreporters. Children include children ages 0 to 4. Adult Women includes postpartum, and breastfeeding women only, not pregnant women.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

Table A-3 shows the breakdown of simulated participants by CPS-ASEC response group. Explicit participants, who are always simulated as participating, account for about half of the simulated caseload for children, and somewhat more than half for the mothers. It is evident nonetheless that the simulated WIC caseload includes substantial numbers of explicit nonparticipants. We see a slight shift in the proportions of imputed and explicit participants

between the 1997-1999 period, when the WIC question was administered on an experimental basis, and the 2000-2006 periods, when it was part of the regular annual survey.

**Table A-3. Children and Mothers Simulated as Enrolled in WIC, by CPS-ASEC Response Group**

**Enrolled Children**

Year	Response Group			
	Explicit Reporter	Imputed Reporter	Imputed Nonreporter	Explicit Nonreporter
1997	43%	0%	2%	55%
1998	45%	0%	3%	53%
1999	47%	0%	2%	51%
2000	45%	3%	12%	40%
2001	46%	3%	11%	40%
2002	43%	3%	12%	42%
2003	45%	4%	12%	40%
2004	45%	4%	12%	40%
2005	42%	3%	12%	44%
2006	41%	5%	16%	38%

**Enrolled Mothers**

Year	Response Group			
	Explicit Reporter	Imputed Reporter	Imputed Nonreporter	Explicit Nonreporter
1997	53%	0%	2%	45%
1998	54%	0%	3%	42%
1999	61%	0%	1%	38%
2000	57%	3%	6%	34%
2001	55%	3%	8%	35%
2002	51%	3%	8%	39%
2003	57%	2%	7%	34%
2004	55%	4%	9%	32%
2005	52%	3%	8%	37%
2006	51%	4%	10%	35%

**Note:** All missing responses for 1997, 1998, and 1999 are coded as Imputed Nonreporters. Children include children ages 0 to 4. Adult Women includes postpartum, and breastfeeding women only, not pregnant women.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

We compared our participation estimates to the numbers of all explicit reporters—children and mothers who live in households reporting WIC explicitly—and eligible explicit reporters. Simulated participation in WIC for children ages 0 to 4 increased slightly from 1997 to 2006 (by



8 percent, Table 3). In contrast, overall explicitly reported participation and explicitly reported participation among eligible children decreased slightly during this time (by 3 percent, Tables F-4 and f-5). However, trends in simulated and explicitly reported participation were similar across immigrant status groups—the largest group, native-born children of native-born parents experienced a decline in both explicitly reported and simulated participation and the second largest group, children of authorized immigrant parents experienced an increase in both explicitly reported and simulated participation. In 2006, children of foreign-born parents accounted for 31 percent of simulated participants, similar to their share of eligible explicit reporters, 32 percent.

Trends in simulated participation for mothers were similar to trends in explicitly reported participation. Foreign-born mothers experienced an increase in simulated participation between 1997 and 2006 as shown in table 6 and in explicitly reported participation (Table F-6). Explicitly reported participation among eligible women also increased for this group (Table F-7). Foreign-born mothers were slightly over-represented among simulated participants in all years. For example, in 2006, foreign-born mothers represented 28 percent of simulated participants compared with 26 percent of eligible explicit reporters.

## **Appendix B. Simulation of NSLP Eligibility and Participation**

The estimates of NSLP eligibility and participation in this report are based on simulations from the TRIM3 WIC module, run with program settings consistent with NSLP rules on age, income, and adjunctive eligibility. The public use CPS-ASEC data have included NSLP items since the March 1980 survey, which provides data on Calendar Year (CY) 1979. But TRIM3 first developed immigrant status assignments for the foreign-born population in the March 1995 (CY 1994) CPS-ASEC, and thus 1994 is the first year of data available for our analysis. Input data for the simulations are from the March 1995-1996 and March 1998-2007 CPS-ASEC, which provide data for CY 1994-1995 and CY 1997-2006. We did not use the March 1997 data, covering CY 1996, because the TRIM3 imputations of citizenship status are not available for that survey year.

TRIM3 does not have an NSLP module, but we were able to use the WIC module to simulate NSLP eligibility by setting program rules to the values shown in Table A-1. To develop separate estimates of eligibility for free and reduced-price lunches, we ran the model twice, first setting the income eligibility limit to 130 percent of FPL, then resetting the limit to 185 percent of FPL. We identified children simulated as eligible in both runs as eligible for free lunches, whether eligibility was based on income or on participation in TANF or SNAP. We identified children who were eligible in the 185 percent run only as eligible for reduced-price lunches. We assumed that the initial eligibility and participation decision was made in September for the remainder of the fall semester. Enrollment is re-assessed in January for the remainder of the school year and summer. Children not eligible in September or January respectively, who became eligible at a later month, were evaluated for participation for the remainder of the relevant period.

Our estimates of NSLP eligibility are somewhat high because they assume that all children from 5 to 18 are in school. In reality, some of the children at the low end of the range have not started school yet, some of the children at the high end have already dropped out or graduated, and some children at all age levels are home-schooled. The CPS-ASEC does include variables that indicate whether a person 16 or older is in school, and if so whether the person is in high school (where NSLP may be available) or college (where NSLP is not available). These variables, however, are part of a series of questions asking about the past week, rather than about the previous year. A

person reported as a high school dropout or college student in March might have been in high school at some time during the previous calendar year, which includes most of the months in the prior school year. We conducted sensitivity analysis (see Appendix F) and found that excluding students no longer in school based on the survey data did not affect the distribution of the caseload across the immigrant status categories.

Our NSLP estimates also assume that all schools participate in the program. Ralston et al. (2008) report that 94 percent of schools actually provide the lunches. Here too, the CPS-ASEC does not provide the information that we would need to identify students attending nonparticipating schools.

The principles and assumptions of our NSLP simulations are similar to those for WIC, discussed in Appendix A:

- Persons simulated as ineligible should not be simulated as participating.
- Persons simulated as eligible who explicitly report participation should be simulated as participating. “Explicitly” excludes responses imputed or allocated by the Census Bureau.
- Other persons simulated as eligible should be simulated as participating so as to come close to average monthly targets based on administrative data, by state and person type (free or reduced price).
- All other things equal, an eligible person for whom a “Yes” response is imputed is more likely to have participated in NSLP than an eligible person for whom a “No” response is imputed, and an eligible person for whom a “No” response is imputed is more likely to have participated than a person for whom an explicit “No” response is recorded.
- Participation decisions should be simulated as consistent within the unit and across the months of the year, if the relevant variables are the same.

### **Eligibility**

To receive free or reduced-price lunches from NSLP, individuals must be participating in elementary or secondary school and meet the requirement for either income or adjunctive eligibility. We approximated this restriction by simulating NSLP eligibility and participation for

children in the age range of 5 to 18. This is the same age range that the CPS-ASEC uses to define the universe for its school lunch questions.

Children are eligible for free lunches if their monthly family income adjusted for family size is at or below 130 percent of federal poverty guidelines. The guidelines vary by family size and are higher for Alaska and Hawaii than for the rest of the states. Children participating in TANF or SNAP qualify for free lunches on the basis of adjunctive eligibility. Children who do not qualify for free lunches can receive reduced-price lunches if monthly family income is at or below 185 percent of federal poverty guidelines. To distinguish children eligible for free lunches from those eligible for reduced-price lunches only, we ran one simulation with an income eligibility limit of 130 percent of poverty and adjunctive eligibility via TANF or SNAP, and a second simulation with the income limit raised to 185 percent of poverty. Children eligible in both simulations were classified as eligible for free lunches, and children eligible in the second only were classified as eligible for reduced-price lunches.

The CPS-ASEC school lunch questions are not administered if the only children age 5-18 in the household are classified as householder or spouse. If there are other children in the household in this age range, the questions are asked, but the householder and spouse are not included in the count of NSLP participants. We did not exclude householders and spouses in this age range who met income or adjunctive eligibility requirements.

We compared our NSLP eligibility estimates to trends in the demographically and income-eligible population of children. The eligibility trends for free and reduced price lunch follow the demographic trends presented in table F-3. In 1997, children with foreign-born parents represented a similar share of the population eligible for free or reduced price lunch as their share of low-income children, 21 versus 22 percent. In 2006, children with foreign-born parents represented 29 percent of both low-income children and children eligible for NSLP.

## **Participation**

We modeled NSLP participation, among those simulated as eligible by TRIM3, with SAS code developed specifically for this project. The code uses information from the simulation of NSLP eligibility and from the administrative data for free and reduced-price lunches in each year and state.

For consistency with the CPS-ASEC timeframe and universe, we calculated average monthly enrollment on a calendar year (rather than fiscal year) basis and dropped records for American Samoa, Guam, Puerto Rico, the Virgin Islands, and military families living outside the U.S. Following FNS practice, we dropped the summer months of June, July, and August in calculating average monthly targets for NSLP enrollment. Some children whose school year ends in June or begins in August do participate in these months, as do children with access to NSLP summer programs. We assumed that any child participating in one of the summer months also participated for at least one month during the regular school year. We did not attempt to model summer participation.

The CPS-ASEC school lunch questions and variables are shown in Figures B-1 and B-2. Although the respondent is asked which children participate, the public use variables give a household-level count only. In households where the number of eligible children exceeded the number reported to participate, we sorted the eligible children by age and assumed that younger children were more likely to participate than older ones.

*Figure B-1. CPS-ASEC NSLP Questions, March 2007*

**Q80**

**During 2006 which of the children ages 5 to 18 in this household usually ate a complete lunch offered at school?**

Probe: Anyone else?

Enter all that apply, separate with commas

Enter 96 for All

Enter 0 for None

Enter person's line number (1-16)

**Q83**

**During 2006 which of the children in this household received free or reduced priced lunches because they qualified for the Federal School Lunch Program?**

Probe: Anyone else?

Enter all that apply, separate with commas

Enter 96 for All

Enter 0 for None

Enter person's line number (1-16)

**Notes:**

Q80 is not asked if there are no children Ages 5 to 18 in household, or if every child in this age range is a householder or spouse.

Q83 is not asked if Q80 is not asked or if response to Q80 is "None."

*Figure B-2. CPS-ASEC NSLP Public Use Variables, March 2007*

**Household:**

HHOTLUN	Hot lunch eaten by children at school
0	Not in universe
1	All or some
2	None
HHOTNO	Number of children in household who usually ate hot lunch
0	Not in universe
1-8	
9	9 or more
HFLUNCH	Children receiving free or reduced price lunches
0	Not in universe
1	Some or all
2	None
HFLUNNO	Number receiving free or reduced price lunch
0	Not in universe
1-8	
9	9 or more
I-HHOTLU	Allocation flag for HHOTLUN
0	No change
1	Allocated
I-HHOTNO	Allocation flag for HHOTNO
0	No change
1	Allocated
I-HFLUNC	Allocation flag for HFLUNCH
0	No change
1	Allocated
I-HFLUNN	Allocation flag for HFLUNNO
0	No change
1	Allocated

The number of children reported as participating is topcoded at 9 in the CPS-ASEC data. In topcoded households with more than 9 eligible children, we reset the number of children reported as participating to the total number eligible. This affected very few households.

We then classified children eligible for free lunches into six groups:

- explicitly reported, within reported number of children
- imputed, within imputed number of children

- imputed, above imputed number of children
- explicitly reported, above reported number of children
- imputed nonparticipant
- explicit nonparticipant

Table B-1 shows the distribution of eligible children across the six groups. More than half the children eligible for free lunches are in households that explicitly report NSLP participation and within the number of children reported as participating. Another 5 percent are in explicitly reporting households, but counting them causes the household count to exceed what is shown in the CPS-ASEC data. Among the imputed cases, Yeses exceed Noes in most years.

The patterns are somewhat different for the smaller population of children simulated as eligible for reduced-price lunches. Explicit participants within the reported number of participants account for up to 40 percent of this group. Explicit nonparticipants account for slightly more than 40 percent. The proportion of explicitly reporting children above the reported number of participants is slightly less than for children eligible for free lunch. Noes exceed Yeses among imputed cases.



**TABLE B-1. Children Simulated as Eligible for NSLP, by CPS-ASEC Response Group**

**Eligible for Free Lunches**

Year	Response Group					
	Explicit Reporter, Within Reported Number of Children	Imputed Reporter, Within Imputed Number of Children	Imputed Reporter, Above Imputed Number of Children	Explicit Reporter, Above Reported Number of Children	Imputed Nonreporter	Explicit Nonreporter
1994	51%	9%	1%	5%	7%	27%
1995	57%	9%	1%	5%	5%	23%
1996						
1997	53%	7%	1%	5%	7%	28%
1998	56%	9%	1%	4%	4%	26%
1999	55%	5%	1%	4%	5%	30%
2000	52%	7%	1%	4%	6%	30%
2001	52%	7%	1%	4%	6%	30%
2002	52%	7%	0%	4%	7%	30%
2003	52%	7%	1%	3%	7%	30%
2004	53%	8%	1%	3%	6%	29%
2005	54%	7%	1%	3%	6%	29%
2006	52%	7%	1%	5%	8%	27%

**Eligible for Reduced Price Lunches**

Year	Response Group					
	Explicit Reporter, Within Reported Number of Children	Imputed Reporter, Within Imputed Number of Children	Imputed Reporter, Above Imputed Number of Children	Explicit Reporter, Above Reported Number of Children	Imputed Nonreporter	Explicit Nonreporter
1994	35%	5%	1%	4%	11%	43%
1995	36%	5%	1%	4%	8%	45%
1996						
1997	41%	3%	0%	3%	11%	41%
1998	42%	5%	1%	3%	7%	42%
1999	41%	3%	0%	3%	7%	46%
2000	41%	4%	0%	3%	10%	42%
2001	45%	4%	0%	3%	9%	38%
2002	41%	5%	0%	3%	9%	41%
2003	41%	5%	0%	3%	11%	40%
2004	40%	4%	0%	3%	10%	42%
2005	40%	4%	0%	3%	9%	43%
2006	40%	3%	0%	4%	12%	41%

**Note:** Children include children ages 5 to 18.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer

Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

Average monthly state targets and eligibility totals were calculated for the entire year. We took the following steps to simulate the participation decision:

1. Simulated all eligible children as participating when the estimated average monthly number of children eligible for free lunch was below the state target for average monthly free-lunch participation. [If this condition was not met, we moved to step 2.]
2. Simulated participation for each child simulated as eligible for a free lunch, explicitly reported as participating, and within the reported number of children participating. If the total of such children exceeded the average monthly free lunch target for that state, we simulated all other children eligible for free lunches as nonparticipants. [If this condition was not met, we moved to step 3.]
3. Compared the state free-lunch target with the total for the first two groups shown. If this total was below the state target, we simulated all children with a Yes response as participating unless doing so would bring the number of participants above the imputed total for the household. If the number in the first group was below the target, but the number in the first two groups combined was above the target, we simulated all children in the first group as participating and drew a uniform random number for all children in the second group. If the random number was less than or equal to the number needed to hit the state-level target, divided by the number of children in the second group, we simulated that child as participating. If the random number was greater than that fraction, we simulated the child as not participating in any eligible month. [If simulated participation still did not meet the target, we moved to step 4.]
4. We followed similar procedures to simulate participation among the other groups of children, with children from households that explicitly reported nonparticipation the least likely to participate.

We then repeated the procedures for children simulated as eligible for reduced-price lunches, using the average monthly reduced-price state targets. Children already simulated as participating for free lunches were subtracted from the reported number of participants before

classifying children eligible for reduced-price lunches as within or above the reported number of participants.

The NSLP certification period is the school year. We simulated children participating for free lunches in January, February, March, April, or May as participating from their first month of eligibility through August. Children participating for reduced-price lunches in January, February, March, April, or May were simulated as participating for reduced-price lunches from the first month of eligibility through August, with the exception that they could be simulated as switching to free lunches if their income or adjunctive eligibility changed before the summer. Children simulated as eligible but not participating for reduced-price lunches may be simulated as participating for free lunches in a later month.

Simulated eligibility was redetermined for all children at the start of the new school year in September. If eligible, children were simulated as making the same participation decision as earlier in the year. Children simulated as enrolling in September, October, or November were simulated as participating through December. As in January-May, children participating for reduced-price lunches can switch to free lunches if their eligibility changes, and children simulated as eligible for, but not participating in, reduced-price lunches may be simulated as participating in free lunches in a subsequent month.

For certain years, these procedures produced simulated participation totals that were substantially above the targets, particularly for reduced price lunches. In years when combined free and reduced-price participation exceeded the targets, we adjusted the targets for each category in which simulated participation exceeded the targets. The adjustment, applied to all states, was to multiply the FNS totals by the national ratio of target to simulated participation. We then reran the participation code with the adjusted targets to produce estimates that were closer to the original FNS totals. We applied the adjustment to both free and reduced-price estimates for 1994, 1995, 1997, and 1998, and to the reduced-price estimates only for 1999 and 2001.

Table B-2 shows the distribution of children simulated as participating across the CPS-ASEC response categories. Most of the children simulated as receiving free lunches are explicit

participants within the reported number for the household, but the trend is downward, and the proportion of the simulated free-lunch caseload that is made up of explicit nonparticipants has increased to about one quarter.

Because take-up among children simulated as eligible for reduced-price lunches is lower than take-up among children simulated as eligible for free lunches, the state administrative targets are low relative to the simulated number of eligibles, and 80 percent or more of the caseload can be simulated with explicit participants within the number of participants reported in their households. As with the free lunches, there is a downward trend. Explicit nonparticipants make up less than 4 percent of the simulated caseload in all years, but the numbers in the intermediate categories increase over time.

**TABLE B-2. Children Simulated as Enrolled in NSLP, by CPS-ASEC Response Group**

**Enrolled for Free Lunches**

Year	Response Group					
	Explicit Reporter, Within Reported Number of Children	Imputed Reporter, Within Imputed Number of Children	Imputed Reporter, Above Imputed Number of Children	Explicit Reporter, Above Reported Number of Children	Imputed Nonreporter	Explicit Nonreporter
1994	79%	10%	1%	3%	4%	3%
1995	75%	11%	1%	4%	3%	5%
1996						
1997	63%	8%	1%	5%	8%	14%
1998	66%	10%	1%	5%	4%	14%
1999	64%	6%	1%	5%	5%	20%
2000	57%	8%	1%	5%	7%	22%
2001	57%	8%	1%	4%	6%	24%
2002	57%	8%	1%	4%	7%	24%
2003	56%	8%	1%	4%	7%	25%
2004	56%	8%	1%	3%	7%	25%
2005	56%	7%	1%	3%	7%	26%
2006	54%	8%	1%	5%	9%	24%

**Enrolled for Reduced Price Lunches**

Year	Response Group					
	Explicit Reporter, Within Reported Number of Children	Imputed Reporter, Within Imputed Number of Children	Imputed Reporter, Above Imputed Number of Children	Explicit Reporter, Above Reported Number of Children	Imputed Nonreporter	Explicit Nonreporter
1994	90%	4%	0%	1%	2%	3%
1995	96%	2%	0%	1%	0%	1%
1996						
1997	99%	0%	0%	0%	1%	0%
1998	99%	1%	0%	0%	0%	0%
1999	94%	1%	0%	1%	2%	2%
2000	89%	3%	0%	2%	4%	3%
2001	96%	2%	0%	1%	1%	0%
2002	87%	5%	0%	2%	4%	2%
2003	87%	4%	0%	1%	5%	2%
2004	82%	5%	0%	3%	5%	4%
2005	82%	5%	0%	2%	7%	3%
2006	80%	5%	0%	4%	8%	3%

**Note:** Children include children ages 5 to 18.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

The NSLP participation estimates do not account for certification errors for free and reduced price lunch. We applied NSLP certification error rates to our participation estimates for 2006 to test the sensitivity of the immigrant status estimates.<sup>53</sup> In 2006, children with foreign-born parents represent the same share of participants in free lunch, 28 percent, with the certification error adjustment and without. The shares participating in free lunch are the same for all immigrant groups with and without the certification error adjustment. When the certification error adjustments are applied to the reduced price lunch participation estimates, the share of children with foreign-born parents declines from 35 percent (as shown in Table 12) to 29 percent. The largest difference is observed for native-born children of authorized immigrant parents—their share of all participants declines from 18 percent to 14 percent. Similarly, the share of native-born children of unauthorized immigrant parents declines from 7 percent to 5 percent.

We also compared trends in simulated participation in free and reduced price lunch to trends in explicitly reported participation. Simulated participation increased between 1994 and 2006 whereas explicitly reported participation declined during this time as shown in table F-8. Explicitly reported participation among eligible children also declined (Table F-9). The difference in trends is driven by differences in participation for native-born children of native-born parents—the number of simulated participants increased slightly while the number of eligible explicit reporters declined. As a result, children of foreign-born parents were slightly under-represented among simulated participants. For example, in 2006, children of foreign-born parents represented 29 percent of simulated participants compared with 31 percent of eligible explicit reporters.

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<sup>53</sup> The certification error rates are for 2005-2006 and are based on the Food and Nutrition Service, Office of Research, Nutrition and Analysis study “NSLP/SBP Access, Participation, Eligibility, and Certification Study – Erroneous Payments in the NSLP and SBP” (See U.S. Department of Agriculture, Food and Nutrition Service, Office of Research, Nutrition and Analysis, “NSLP/SBP Access, Participation, Eligibility, and Certification Study – Erroneous Payments in the NSLP and SBP, Vol. I: Study Findings,” by Michael Ponza, et al. Project Officer: John R. Endahl. Alexandria, VA: 2007. <http://www.fns.usda.gov/ORA/menu/Published/CNP/FILES/apecv011.pdf>.)

## Appendix C. Imputation of Immigrant Status and Identification of Parents

The estimates presented in this report categorize children and their parents on the basis of TRIM3 imputations of immigrant status. The methodology for these imputations, developed at the Urban Institute by Jeffrey Passel and Rebecca Clark, is summarized in Passel and Cohn (2009).

The CPS-ASEC data include the country of birth for each person in the survey and for his or her parents. The data also include information about how long foreign-born people have lived in the United States and whether they have become citizens (naturalized). The public-use data do not include information about the immigrant status of noncitizens, who may be legal permanent residents (LPRs); legal temporary residents (LTRs), such as students, diplomats and their families, and workers with guest visas; refugees and asylees; or unauthorized immigrants. Administrative data from the U.S. Department of Homeland Security (DHS) on LPRs, LTRs, refugees, and asylees, by year of entry and country of origin, are used to estimate the number of authorized immigrants. Some additional edits adjust for mortality and emigration. The edited total number of *authorized* immigrants is subtracted from the CPS-ASEC foreign-born estimates to produce a residual estimate of the number of *unauthorized* immigrants.<sup>54</sup>

Individual *noncitizens* in the CPS-ASEC data are then assigned status as LPRs, LTRs, refugees/asylees, or unauthorized immigrants. Noncitizens are assigned refugee/asylee status based on comparison of their reported date of entry and country of origin to the DHS administrative data on refugee and asylee admissions (e.g., Vietnamese immigrants entering during the 1970s and 1980s, Bosnians and Russians during the 1990s, and immigrants from various African countries such as Somalia since 2000). Other noncitizens are assigned LTR status based on country of birth, date of entry, occupation, and education (e.g., students must be participating in school, while temporary workers must be in the United States for a limited period of time and work in specified occupations). Some of the noncitizens who are *not* assigned as

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<sup>54</sup> Demographers have estimated that unauthorized immigrants are undercounted by about 12.5 percent in these data sources (see Passel and Cohn 2009). Neither the raw CPS-ASEC totals nor the TRIM3 estimates are adjusted for this undercount, so estimates of unauthorized immigrants and their children could reflect the undercount.

LTRs or refugees/asylees are assigned LPR status because they work in occupations such as police officer, security guard, or federal government employee that generally require citizenship or legal immigrant status, or report receiving federal benefits such as TANF or food stamps, for which undocumented immigrants would not be eligible. Immigrants to the United States before 1980 are assumed to be authorized immigrants.<sup>55</sup>

Probabilistic methods are used to assign LPR versus unauthorized status to the remaining noncitizens in the CPS-ASEC data (those not already assigned as refugees/asylees, LTRs, or LPRs). The results are edited for logical consistency within immigrant families (so that the statuses of parents and children generally match, if they entered the country at the same time), and then aligned to controls for the total numbers of refugees/asylees, LTRs, LPRs, and unauthorized immigrants described above. The assignment process also identifies some people reported as native-born on the CPS-ASEC as foreign-born, and identifies some foreign-born people reported as naturalized as LPRs, LTRs, refugees/asylees, or unauthorized immigrants. For greater precision in the match to the aggregate data, some CPS-ASEC household records are replicated, with the original weight distributed among the original and replicate households.

The CPS data provide information on the relationship of each household member to the householder (the person that owns or rents the home). The CPS data also identify the spouse of each person if married. For households with children, the data identify one of the parents living in the household. For the purposes of this analysis, the other parent is defined as the spouse of the parent identified in the data.<sup>56</sup>

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<sup>55</sup> The Immigration Reform and Control Act of 1986 provided for the legalization of foreign-born persons that had arrived as illegal aliens before January 1, 1982.

<sup>56</sup> The CPS-ASEC data for most of the period analyzed in the report link a child with unmarried parents within the household to only one of the parents, and do not differentiate among biological, adoptive, and stepparents. Starting with the 2007 CPS, for CY 2006, the data do identify both parents if they are living in the household. The new variables also distinguish biological, adoptive, and stepfathers. (See Kreider, R. M. (2008, March). Improvements to Demographic Household Data in the Current Population Survey: 2007. Housing and Household Economic Statistics Division Working Paper. Washington, DC: U.S. Bureau of the Census. Retrieved in February 2009 from U.S. Census Bureau: <http://www.census.gov/population/www/documentation/twps08/twps08.pdf>). To allow for comparison across years, we used the same procedures to identify parents in the 2006 data that we used for prior years.



No parent is identified for a small number of children in the CPS-ASEC data—about 3 percent of all children ages 0 to 4 and 5 percent of all children ages 5 to 18. The CPS-ASEC data do not provide information on the legal status of these parents, but the data do indicate where they were born. Native-born children with (absent) native parents are simply combined in the analysis with the children with native parents in the household. Native-born children with foreign-born absent parents are placed in their own category because we cannot determine whether the parents were authorized. Only 0.4 percent of all children Ages 0 to 4, and 0.6 percent of children ages 5 to 18, fall into this category.

## Appendix D. Decomposition Analyses

The demographic decomposition technique is applied to changes in participation as described in Das Gupta (1993). See Henderson, Capps, and Finegold (2008) and Fix and Passel (2002) for similar applications of the decomposition techniques. The decomposition apportions the change over time in participation into a number of distinct components: 1) immigrant status groups (e.g., native-born children of authorized immigrant parents), 2) size of the overall eligible population, and 3) take-up rates (number of participants divided by eligible children). We apply the technique to changes in WIC participation between 1997 and 2006 among all children ages 0 to 4 and among all breastfeeding and postpartum mothers, and to changes in NSLP participation between 1994 and 2006 among children ages 5 to 18. The decomposition technique is applied to the entire population of children (mothers)—those who are income-eligible and those who are not, because we are interested in the effect on participation of eligibility trends. We allocate the change in participation into the proportions due to each of the following:

- Proportion of the change in participation due to changes in the number and share of children (mothers) by immigrant status groups as described previously
- Proportion due to change in the number of children (mothers) that are eligible for the program; and
- Proportion due to changes in the take-up rates (number of participants divided by eligible children or mothers).

We calculate standardized participation rates (number of participants divided by number of children ages 0 to 4)—the participation rate given the change in one component (e.g., take-up rate), holding constant the other two components (e.g., immigrant status and eligibility). This allows us to calculate the effect of each component separately. In contrast to other decomposition methods, the decomposition technique developed by Das Gupta (1993) decomposes changes into additive main effects (here, immigrant status, eligibility, and take-up rates) without the need for an interaction term (the total effect is the sum of the main effects), which makes interpretation easier:

$$t - T = R\text{-effect} + I\text{-effect} + J\text{-effect}$$

$$= [R(\bar{t}) - R(\bar{T})] + [I(\bar{a}) - I(\bar{A})] + [J(\bar{b}) - J(\bar{B})]$$

Where:

t is the overall participation rate at time 2

T is the overall participation rate at time 1

$R(\bar{t})$  = take-up rate at time 2, standardized for immigrant status and eligibility

$R(\bar{T})$  = take-up rate at time 1, standardized for immigrant status and eligibility

$I(\bar{a})$  = immigrant status at time 2, standardized for take-up rate and eligibility

$I(\bar{A})$  = immigrant status at time 1, standardized for take-up rate and eligibility

$J(\bar{b})$  = eligibility rate at time 2, standardized for immigrant status and take-up rate

$J(\bar{B})$  = eligibility rate at time 1, standardized for immigrant status and take-up rate

The effect of changes in immigrant status represents the overall effect and does not identify the children group(s) driving the change. The decomposition technique, however, accounts for all groups by nativity and legal immigrant status (e.g., changes in the number of unauthorized immigrants, authorized immigrants, native-born children of unauthorized immigrants, native-born children of authorized immigrants, and native-born children with native-born parents).

## Appendix E. Multivariate Analyses

We used regression modeling to determine the extent to which changes over time in WIC and NSLP take-up rates (number of participants divided by number of eligibles) are explained by growth in the population of eligible immigrants, changes in economic conditions, and other factors. Using multivariate linear regression modeling we analyzed the association between growth in take-up and growth in the immigrant population controlling for the type of state (traditional immigrant-receiving states, states with rapidly-growing immigrant populations, and states with slower-growing immigrant populations), state economic characteristics (state unemployment and poverty rates), and other demographic factors related to take-up. We combined two years of data for each time period to increase the sample size and examined changes in take-up rates between 1997–1998 and 2005–2006 for WIC and between 1994–1995 and 2005–2006 for NSLP. We estimated models separately for 1) WIC eligible mothers, 2) WIC eligible children, 3) children eligible for free lunches, and 4) children eligible for reduced-price lunches.

The models predict changes in take-up:

$$P_{ijt} = \beta_0 I_{ijt} + \beta_1 T_j + \beta_2 S_{jt} + \beta_3 E_{ijt} + \beta_4 t_{ij} + \gamma_0 (I_{ijt} \times t_{ij}) + \gamma_1 (T_j \times t_{ij}) + \varepsilon_{ijt}$$

Where,

$P_{ijt}$  = probability that person  $i$  in state  $j$  participates in the nutrition program at time  $t$ ;

$I_{ijt}$  = dummy variables (coded 0 or 1) for different immigrant status groups (e.g., unauthorized immigrant) for person  $i$  in state  $j$  at time  $t$ ;

$T_j$  = dummy variables for type of state (e.g., traditional immigrant-receiving state);

$S_{jt}$  = a vector of state economic and demographic characteristics at time  $t$ ;

$E_{ijt}$  = a vector of characteristics of the participant and family at time  $t$ ;

$t_{ij}$  = a dummy variable denoting the time period (the first versus last year of the data we are analyzing—1997–1998 versus 2005–2006 for WIC and 1994–1995 versus 2005–2006 for NSLP).

The coefficients in the regression equation represent the effects on the probability of an eligible individual's WIC and NSLP take-up controlling for all other factors. The beta coefficients represent base coefficients or the "first" level of differences:

$\beta_0$ , = effects of immigrant status on take-up;

$\beta_1, \beta_2, \beta_3$ , = effects on take-up of, respectively: type of state, state economic conditions, and individual and family characteristics; and

$\beta_4$  = the *overall* change in the take-up rate between time 1 and time 2.

The gamma terms represent the "second" level of differences or changes across time in these factors, controlling for other factors:

$\gamma_0$  = the *change* in the take-up rate between time 1 and time 2 for each immigrant status group (e.g., unauthorized immigrants) relative to the change in take-up for the reference group (e.g., native-born mothers); and

$\gamma_1$  = the *change* in the take-up rate between time 1 and time 2 for eligible individuals in each type of state (e.g., traditional immigrant-receiving state) relative to the reference group (e.g., states with slower-growing immigrant populations).

## **Variables:**

### ***Dependent ( $P_{ijt}$ )***

- WIC take-up, Mother
- WIC take-up, Children
- NSLP take-up, Free
- NSLP take-up, Reduced-Price

### ***Independent***

#### **Immigrant status of the child ( $I_{ijt}$ ) (*Native-born, native-born parents, reference*)**

- Unauthorized immigrant
- Authorized immigrant
- Native-born, authorized immigrant parents only
- Native-born, any unauthorized immigrant parent

- Native-born, foreign-born parent with unknown immigrant status

Or

**Immigrant status of the mother ( $I_{ijt}$ ) (*Native-born, reference*)**

- Unauthorized immigrant
- Authorized immigrant

**Type of State ( $T_j$ ) (*States with slower-growing immigrant populations, reference*)**

- Traditional immigrant-receiving states
- States with rapidly-growing immigrant populations

**State Economic and Demographic Conditions ( $S_{jt}$ )**

- Unemployment rate
- Child poverty rate [adult poverty rate for WIC mothers model]

**Characteristics of the participant and family ( $E_{ijt}$ )**

- Race of mother (white, reference)
  - Black
  - Hispanic
  - Asian
  - Other
- Age of mother
- Age of child [for WIC child model and NSLP models]
- Family structure (two-parent household, reference)
  - Single-parent
  - Other family type (e.g., no parents)
- Education of mother (more than high school degree, reference)
  - Less than high school
  - High school or equivalent education
- Number of adults in the household

- Number of children in household

We also ran separate regression models for children (mothers) living in the three types of states—traditional immigrant-receiving states, states with rapidly-growing immigrant populations, and states with slower-growing immigrant populations.

## Appendix F. Sensitivity Analyses Tables

**TABLE F-1. Number and Percent of Children Demographically Eligible for WIC by Immigrant Status Group (weighted)**

	Total Children		Native-Born Child with Foreign-Born Parents										Foreign-Born Child			
			Native-Born Children with Native-Born Parents		Authorized immigrant parents Only		Unauthorized immigrant parents Only		Unauthorized and Authorized Immigrant Parents		Immigrant Status of Parents Unknown		Authorized Immigrant		Unauthorized Immigrant	
	Unweighted	Weighted	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1997	6,838	8,935,894	6,748,928	75.5%	1,337,702	15.0%	539,446	6.0%	106,177	1.2%	62,707	0.7%	62,587	0.7%	78,346	0.9%
1998	6,401	8,641,105	6,471,702	74.9%	1,281,091	14.8%	563,903	6.5%	106,017	1.2%	54,254	0.6%	100,183	1.2%	63,955	0.7%
1999	6,794	8,195,960	6,229,885	76.0%	1,062,092	13.0%	580,602	7.1%	87,375	1.1%	75,943	0.9%	74,618	0.9%	85,444	1.0%
2000	5,735	7,959,951	5,888,163	74.0%	1,106,540	13.9%	615,068	7.7%	85,507	1.1%	83,741	1.1%	81,780	1.0%	99,152	1.2%
2001	9,013	8,132,039	5,905,998	72.6%	1,227,200	15.1%	665,115	8.2%	83,494	1.0%	79,463	1.0%	102,717	1.3%	68,051	0.8%
2002	9,823	8,275,285	6,092,263	73.6%	1,177,004	14.2%	686,949	8.3%	75,528	0.9%	88,286	1.1%	75,304	0.9%	78,261	0.9%
2003	10,247	8,765,092	6,436,211	73.4%	1,215,237	13.9%	829,572	9.5%	45,926	0.5%	62,917	0.7%	68,486	0.8%	106,744	1.2%
2004	8,065	8,893,981	6,328,020	71.1%	1,310,702	14.7%	889,700	10.0%	54,795	0.6%	87,146	1.0%	77,110	0.9%	146,508	1.6%
2005	8,308	8,916,566	6,409,366	71.9%	1,284,819	14.4%	861,925	9.7%	74,506	0.8%	92,343	1.0%	64,425	0.7%	129,183	1.4%
2006	8,477	9,022,973	6,390,970	70.8%	1,331,426	14.8%	989,580	11.0%	79,921	0.9%	52,239	0.6%	66,369	0.7%	112,467	1.2%

**Note:** Children include children ages 0 to 4 with family incomes below 185 percent of federal poverty level. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).



**TABLE F-2. Number and Percent of Women Demographically Eligible for WIC by Immigrant Status Group (weighted)**

	Total Women		Native-Born Women		Foreign-Born Women			
					Authorized Immigrant		Unauthorized Immigrant	
	Unweighted	Weighted	N	%	N	%	N	%
1997	865	1,035,304	804,690	77.7%	153,515	14.8%	77,099	7.4%
1998	710	1,064,324	839,058	78.8%	136,237	12.8%	89,029	8.4%
1999	760	990,376	791,728	79.9%	117,313	11.8%	81,335	8.2%
2000	689	986,857	743,470	75.3%	135,262	13.7%	108,125	11.0%
2001	1,078	1,036,030	762,028	73.6%	155,907	15.0%	118,094	11.4%
2002	1,159	1,049,523	767,758	73.2%	160,765	15.3%	121,000	11.5%
2003	1,193	1,080,872	778,924	72.1%	163,479	15.1%	138,469	12.8%
2004	1,027	1,217,871	896,003	73.6%	184,280	15.1%	137,588	11.3%
2005	1,037	1,164,106	868,427	74.6%	167,118	14.4%	128,561	11.0%
2006	1,083	1,206,949	892,449	73.9%	153,427	12.7%	161,073	13.3%

**Note:** Adult Women includes postpartum and breastfeeding women ages 14 to 45 with family incomes below 185 percent of federal poverty level. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE F-3. Number and Percent of Children Demographically Eligible for NSLP by Immigrant Status Group (weighted)**

	Total Children		Native-Born Children with Native-Born Parents		Native-Born Child with Foreign-Born Parents								Foreign-Born Child			
					Authorized immigrant parents Only		Unauthorized immigrant parents Only		Unauthorized and Authorized Immigrant Parents		Immigrant Status of Parents Unknown		Authorized Immigrant		Unauthorized Immigrant	
	Unweighted	Weighted	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1994	16,494	21,620,312	16,892,353	78.1%	2,211,944	10.2%	442,933	2.0%	76,641	0.4%	129,200	0.6%	1,111,677	5.1%	755,565	3.5%
1995	14,950	22,052,496	17,110,050	77.6%	2,243,947	10.2%	562,103	2.5%	124,488	0.6%	161,172	0.7%	1,100,636	5.0%	750,100	3.4%
1996																
1997	16,276	21,590,582	16,506,761	76.5%	2,357,163	10.9%	649,410	3.0%	136,610	0.6%	222,376	1.0%	947,403	4.4%	770,858	3.6%
1998	14,506	21,093,548	16,002,360	75.9%	2,397,281	11.4%	722,345	3.4%	139,823	0.7%	216,328	1.0%	1,000,672	4.7%	614,739	2.9%
1999	15,460	20,588,299	15,487,905	75.2%	2,307,623	11.2%	766,968	3.7%	132,349	0.6%	185,128	0.9%	942,529	4.6%	765,797	3.7%
2000	13,861	19,632,133	14,547,256	74.1%	2,231,076	11.4%	880,905	4.5%	126,292	0.6%	213,711	1.1%	826,431	4.2%	806,461	4.1%
2001	22,421	20,027,340	14,516,110	72.5%	2,507,920	12.5%	873,671	4.4%	181,567	0.9%	242,008	1.2%	843,132	4.2%	862,933	4.3%
2002	24,108	20,149,188	14,686,964	72.9%	2,462,165	12.2%	829,668	4.1%	160,133	0.8%	220,416	1.1%	937,618	4.7%	850,796	4.2%
2003	24,823	21,120,881	15,202,191	72.0%	2,653,784	12.6%	1,081,606	5.1%	118,665	0.6%	195,939	0.9%	895,316	4.2%	973,380	4.6%
2004	20,584	20,930,148	15,044,272	71.9%	2,595,436	12.4%	1,070,700	5.1%	115,779	0.6%	236,382	1.1%	817,886	3.9%	1,049,693	5.0%
2005	20,909	20,671,310	14,899,150	72.1%	2,564,809	12.4%	1,137,254	5.5%	116,166	0.6%	218,746	1.1%	760,295	3.7%	974,890	4.7%
2006	20,482	20,671,569	14,647,660	70.9%	2,778,195	13.4%	1,228,778	5.9%	154,134	0.7%	212,620	1.0%	751,226	3.6%	898,956	4.3%

**Note:** Children include children ages 5 to 18 with family incomes below 185 percent of federal poverty level. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE F-4. Number and Percent of WIC Explicit Reporters by Immigrant Status Group: Children Age 0 to 4 (weighted)**

	Total Children		Native-Born Child with Foreign-Born Parents										Foreign-Born Child			
			Native-Born Children with Native-Born Parents		Authorized immigrant parents Only		Unauthorized immigrant parents Only		Unauthorized and Authorized Immigrant Parents		Immigrant Status of Parents Unknown		Authorized Immigrant		Unauthorized Immigrant	
	Unweighted	Weighted	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1997	2,773	3,668,408	2,836,480	77.3%	520,473	14.2%	201,827	5.5%	53,286	1.5%	7,596	0.2%	20,343	0.6%	28,404	0.8%
1998	2,734	3,743,554	2,813,390	75.2%	550,253	14.7%	268,458	7.2%	50,092	1.3%	14,452	0.4%	22,812	0.6%	24,098	0.6%
1999	3,370	3,826,481	2,927,773	76.5%	492,061	12.9%	265,080	6.9%	54,368	1.4%	42,173	1.1%	21,470	0.6%	23,556	0.6%
2000	2,849	3,637,664	2,717,303	74.7%	505,661	13.9%	271,981	7.5%	51,085	1.4%	13,729	0.4%	43,832	1.2%	34,073	0.9%
2001	4,082	3,681,125	2,645,119	71.9%	592,686	16.1%	298,906	8.1%	52,093	1.4%	25,937	0.7%	39,631	1.1%	26,753	0.7%
2002	4,214	3,529,659	2,542,707	72.0%	561,244	15.9%	319,893	9.1%	40,923	1.2%	13,859	0.4%	26,180	0.7%	24,853	0.7%
2003	4,562	3,693,179	2,606,058	70.6%	588,370	15.9%	405,324	11.0%	27,901	0.8%	10,596	0.3%	24,378	0.7%	30,553	0.8%
2004	3,460	3,671,339	2,572,230	70.1%	633,695	17.3%	363,340	9.9%	26,176	0.7%	26,013	0.7%	19,242	0.5%	30,643	0.8%
2005	3,543	3,699,445	2,637,619	71.3%	544,630	14.7%	393,303	10.6%	37,930	1.0%	30,791	0.8%	17,138	0.5%	38,035	1.0%
2006	3,449	3,559,342	2,433,768	68.4%	572,806	16.1%	446,241	12.5%	40,921	1.1%	8,890	0.2%	20,982	0.6%	35,735	1.0%

**Note:** Children include children ages 0 to 4. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE F-5. Number and Percent of Eligible WIC Explicit Reporters by Immigrant Status Group: Children Age 0 to 4 (weighted)**

	Total Children		Native-Born Child with Foreign-Born Parents										Foreign-Born Child			
			Native-Born Children with Native-Born Parents		Authorized immigrant parents Only		Unauthorized immigrant parents Only		Unauthorized and Authorized Immigrant Parents		Immigrant Status of Parents Unknown		Authorized Immigrant		Unauthorized Immigrant	
	Unweighted	Weighted	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1997	2,638	3,475,135	2,679,718	77.1%	498,188	14.3%	197,494	5.7%	50,665	1.5%	6,467	0.2%	16,169	0.5%	26,433	0.8%
1998	2,649	3,620,705	2,712,200	74.9%	538,985	14.9%	262,774	7.3%	48,358	1.3%	14,452	0.4%	20,988	0.6%	22,949	0.6%
1999	3,184	3,593,236	2,746,121	76.4%	464,204	12.9%	247,767	6.9%	49,123	1.4%	42,173	1.2%	21,470	0.6%	22,378	0.6%
2000	2,657	3,391,288	2,554,997	75.3%	455,169	13.4%	253,355	7.5%	43,765	1.3%	13,729	0.4%	41,557	1.2%	28,717	0.8%
2001	3,780	3,429,448	2,450,716	71.5%	558,296	16.3%	287,373	8.4%	47,970	1.4%	24,655	0.7%	35,820	1.0%	24,619	0.7%
2002	3,891	3,280,927	2,375,372	72.4%	515,548	15.7%	298,939	9.1%	34,896	1.1%	13,859	0.4%	18,530	0.6%	23,783	0.7%
2003	4,240	3,484,079	2,467,149	70.8%	542,130	15.6%	387,157	11.1%	25,875	0.7%	10,271	0.3%	24,284	0.7%	27,214	0.8%
2004	3,230	3,471,559	2,447,605	70.5%	581,947	16.8%	344,397	9.9%	24,796	0.7%	26,013	0.7%	18,628	0.5%	28,171	0.8%
2005	3,325	3,489,566	2,496,068	71.5%	506,420	14.5%	372,179	10.7%	32,287	0.9%	30,791	0.9%	15,388	0.4%	36,433	1.0%
2006	3,263	3,382,369	2,315,936	68.5%	537,450	15.9%	428,932	12.7%	38,685	1.1%	8,427	0.2%	20,000	0.6%	32,939	1.0%

**Note:** Children include children ages 0 to 4. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE F-6. Number and Percent of WIC Explicit Reporters by Immigrant Status Group: Women (weighted)**

	Total Women		Native-Born Women		Foreign-Born Women			
					Authorized Immigrant		Unauthorized Immigrant	
	Unweighted	Weighted	N	%	N	%	N	%
1997	527	684,663	556,009	81.2%	84,311	12.3%	44,343	6.5%
1998	500	738,560	596,472	80.8%	83,205	11.3%	58,882	8.0%
1999	647	749,041	606,942	81.0%	88,549	11.8%	53,550	7.1%
2000	523	736,747	564,235	76.6%	99,220	13.5%	73,292	9.9%
2001	769	727,809	556,692	76.5%	96,057	13.2%	75,059	10.3%
2002	709	658,961	500,471	75.9%	88,014	13.4%	70,475	10.7%
2003	851	798,777	580,764	72.7%	117,082	14.7%	100,931	12.6%
2004	688	826,241	641,682	77.7%	118,341	14.3%	66,217	8.0%
2005	660	738,135	560,363	75.9%	105,865	14.3%	71,906	9.7%
2006	678	751,243	547,939	72.9%	109,156	14.5%	94,148	12.5%

**Note:** Adult Women includes postpartum, and breastfeeding women only, not pregnant women. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE F-7. Number and Percent of Eligible WIC Explicit Reporters by Immigrant Status Group: Women (weighted)**

	Total Women		Native-Born Women		Foreign-Born Women			
					Authorized Immigrant		Unauthorized Immigrant	
	Unweighted	Weighted	N	%	N	%	N	%
1997	509	669,778	544,819	81.3%	83,734	12.5%	41,225	6.2%
1998	487	715,624	576,019	80.5%	81,965	11.5%	57,640	8.1%
1999	595	713,172	576,281	80.8%	86,630	12.1%	50,261	7.0%
2000	494	686,444	530,383	77.3%	84,710	12.3%	71,351	10.4%
2001	723	679,778	511,600	75.3%	95,279	14.0%	72,898	10.7%
2002	679	636,997	485,189	76.2%	86,576	13.6%	65,232	10.2%
2003	803	756,106	552,321	73.0%	109,341	14.5%	94,444	12.5%
2004	664	800,463	620,294	77.5%	114,756	14.3%	65,413	8.2%
2005	631	710,939	541,954	76.2%	101,154	14.2%	67,831	9.5%
2006	644	722,135	531,622	73.6%	100,053	13.9%	90,459	12.5%

**Note:** Adult Women includes postpartum, and breastfeeding women only, not pregnant women. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE F-8. Number and Percent of NSLP Explicit Reporters by Immigrant Status Group**

	Total Children		Native-Born Children with Native-Born Parents		Native-Born Child with Foreign-Born Parents								Foreign-Born Child			
					Authorized immigrant parents Only		Unauthorized immigrant parents Only		Unauthorized and Authorized Immigrant Parents		Immigrant Status of Parents Unknown		Authorized Immigrant		Unauthorized Immigrant	
	Unweighted	Weighted	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1994	10,288	13,114,472	10,064,595	76.7%	1,518,254	11.6%	357,641	2.7%	72,063	0.5%	45,476	0.3%	611,277	4.7%	445,167	3.4%
1995	9,671	13,449,137	10,063,467	74.8%	1,589,418	11.8%	450,409	3.3%	101,691	0.8%	76,794	0.6%	636,746	4.7%	530,613	3.9%
1996																
1997	9,928	12,797,194	9,421,929	73.6%	1,599,998	12.5%	496,375	3.9%	108,967	0.9%	91,213	0.7%	559,256	4.4%	519,457	4.1%
1998	9,514	13,102,672	9,517,342	72.6%	1,805,378	13.8%	599,042	4.6%	118,817	0.9%	61,194	0.5%	575,002	4.4%	425,898	3.3%
1999	10,106	12,610,291	9,017,829	71.5%	1,720,585	13.6%	635,884	5.0%	127,023	1.0%	74,933	0.6%	606,726	4.8%	427,311	3.4%
2000	9,264	11,877,056	8,245,573	69.4%	1,712,839	14.4%	683,829	5.8%	108,093	0.9%	90,993	0.8%	470,872	4.0%	564,857	4.8%
2001	14,707	12,593,426	8,732,971	69.3%	1,793,418	14.2%	730,113	5.8%	160,652	1.3%	80,741	0.6%	475,685	3.8%	619,845	4.9%
2002	15,798	12,334,539	8,425,305	68.3%	1,835,875	14.9%	698,583	5.7%	124,236	1.0%	71,570	0.6%	599,232	4.9%	578,309	4.7%
2003	15,656	12,525,329	8,543,606	68.2%	1,800,886	14.4%	801,946	6.4%	102,845	0.8%	74,579	0.6%	555,279	4.4%	646,188	5.2%
2004	12,862	12,603,121	8,636,276	68.5%	1,822,624	14.5%	837,450	6.6%	103,535	0.8%	72,993	0.6%	534,204	4.2%	596,039	4.7%
2005	13,125	12,557,621	8,804,294	70.1%	1,753,222	14.0%	841,681	6.7%	106,032	0.8%	75,347	0.6%	406,666	3.2%	570,379	4.5%
2006	12,316	12,208,936	8,445,421	69.2%	1,717,329	14.1%	840,160	6.9%	110,892	0.9%	84,817	0.7%	412,144	3.4%	598,173	4.9%

**Note:** Children include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE F-9. Number and Percent of Eligible NSLP Explicit Reporters by Immigrant Status Group**

	Total Children		Native-Born Children with Native-Born Parents		Native-Born Child with Foreign-Born Parents						Foreign-Born Child					
					Authorized immigrant parents Only		Unauthorized immigrant parents Only		Unauthorized and Authorized Immigrant Parents		Immigrant Status of Parents Unknown		Authorized Immigrant		Unauthorized Immigrant	
	Unweighted	Weighted	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1994	8,955	11,497,147	8,754,662	76.1%	1,343,101	11.7%	323,241	2.8%	52,658	0.5%	41,956	0.4%	572,838	5.0%	408,692	3.6%
1995	8,621	12,029,874	8,956,785	74.5%	1,393,054	11.6%	415,929	3.5%	87,499	0.7%	73,925	0.6%	595,809	5.0%	506,872	4.2%
1996																
1997	8,768	11,378,655	8,341,244	73.3%	1,400,633	12.3%	453,707	4.0%	98,293	0.9%	77,988	0.7%	533,139	4.7%	473,652	4.2%
1998	8,414	11,485,433	8,248,292	71.8%	1,589,002	13.8%	545,873	4.8%	105,746	0.9%	54,541	0.5%	539,241	4.7%	402,739	3.5%
1999	8,856	11,178,541	8,025,840	71.8%	1,485,777	13.3%	553,496	5.0%	102,505	0.9%	70,409	0.6%	556,422	5.0%	384,092	3.4%
2000	7,874	9,989,618	7,004,524	70.1%	1,391,854	13.9%	553,864	5.5%	96,231	1.0%	76,761	0.8%	378,198	3.8%	488,186	4.9%
2001	12,409	10,667,188	7,396,366	69.3%	1,493,027	14.0%	642,492	6.0%	134,830	1.3%	74,781	0.7%	404,513	3.8%	521,180	4.9%
2002	13,009	10,329,499	7,070,428	68.4%	1,474,555	14.3%	581,057	5.6%	107,620	1.0%	63,882	0.6%	535,744	5.2%	494,786	4.8%
2003	12,950	10,446,142	7,140,178	68.4%	1,449,457	13.9%	685,543	6.6%	82,866	0.8%	69,211	0.7%	469,185	4.5%	549,703	5.3%
2004	10,472	10,411,502	7,172,460	68.9%	1,447,836	13.9%	696,319	6.7%	71,810	0.7%	68,495	0.7%	446,312	4.3%	508,270	4.9%
2005	10,842	10,438,009	7,355,945	70.5%	1,385,476	13.3%	722,585	6.9%	75,841	0.7%	57,657	0.6%	343,350	3.3%	497,154	4.8%
2006	10,255	10,153,464	6,990,120	68.8%	1,427,697	14.1%	722,916	7.1%	96,592	1.0%	82,000	0.8%	350,496	3.5%	483,643	4.8%

**Note:** Children include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).



**TABLE F-10. Number and Percent of NSLP Eligibles Excluding Children not in School, by Immigrant Status Group: Free Lunches (weighted)**

	Total Children Eligible for Free Lunches		Native-Born Children with Native-Born Parents		Native-Born Child with Foreign-Born Parents								Foreign-Born Child			
					Authorized immigrant parents Only		Unauthorized immigrant parents Only		Unauthorized and Authorized Immigrant Parents		Immigrant Status of Parents Unknown		Authorized Immigrant		Unauthorized Immigrant	
	Unweighted	Weighted	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1994	13,472	18,210,163	14,498,770	79.6%	1,709,525	9.4%	341,166	1.9%	51,646	0.3%	126,324	0.7%	920,908	5.1%	561,824	3.1%
1995	11,186	16,637,677	12,829,824	77.1%	1,703,613	10.2%	420,288	2.5%	98,099	0.6%	145,786	0.9%	866,006	5.2%	574,062	3.5%
1996																
1997	9,748	12,987,269	9,861,333	75.9%	1,499,603	11.5%	421,569	3.2%	84,007	0.6%	133,721	1.0%	533,819	4.1%	453,218	3.5%
1998	10,342	15,291,146	11,535,888	75.4%	1,801,791	11.8%	541,467	3.5%	101,716	0.7%	146,366	1.0%	719,414	4.7%	444,504	2.9%
1999	10,472	14,373,553	10,731,345	74.7%	1,596,222	11.1%	552,553	3.8%	87,507	0.6%	148,585	1.0%	729,633	5.1%	527,708	3.7%
2000	9,572	13,784,135	10,205,379	74.0%	1,536,618	11.1%	623,056	4.5%	94,676	0.7%	157,772	1.1%	608,289	4.4%	558,345	4.1%
2001	15,185	13,862,878	10,111,856	72.9%	1,681,631	12.1%	617,643	4.5%	109,351	0.8%	150,102	1.1%	604,624	4.4%	587,671	4.2%
2002	16,254	13,865,490	10,100,631	72.8%	1,653,243	11.9%	612,665	4.4%	92,115	0.7%	146,888	1.1%	689,806	5.0%	568,713	4.1%
2003	16,383	14,137,771	10,246,078	72.5%	1,708,915	12.1%	771,849	5.5%	66,376	0.5%	147,510	1.0%	559,500	4.0%	637,544	4.5%
2004	13,707	14,156,486	10,325,726	72.9%	1,566,057	11.1%	768,379	5.4%	64,155	0.5%	152,249	1.1%	582,767	4.1%	697,155	4.9%
2005	13,790	13,768,081	10,050,018	73.0%	1,560,348	11.3%	811,931	5.9%	72,098	0.5%	155,895	1.1%	522,762	3.8%	595,028	4.3%
2006	13,589	13,861,761	9,983,132	72.0%	1,666,612	12.0%	853,331	6.2%	84,045	0.6%	171,850	1.2%	505,354	3.6%	597,436	4.3%

**Note:** Children include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

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**TABLE F-11. Number and Percent of NSLP Eligibles Excluding Children not in School, by Immigrant Status Group: Reduced-Price Lunches (weighted)**

	Total Children Eligible for Reduced-Price Meals		Native-Born Children with Native-Born Parents		Native-Born Child with Foreign-Born Parents								Foreign-Born Child			
					Authorized immigrant parents Only		Unauthorized immigrant parents Only		Unauthorized and Authorized Immigrant Parents		Immigrant Status of Parents Unknown		Authorized Immigrant		Unauthorized Immigrant	
	Unweighted	Weighted	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1994	3,621	4,592,389	3,633,947	79.1%	525,867	11.5%	99,115	2.2%	33,229	0.7%	16,836	0.4%	142,747	3.1%	140,649	3.1%
1995	3,706	5,623,227	4,544,968	80.8%	554,495	9.9%	144,336	2.6%	24,193	0.4%	18,048	0.3%	198,919	3.5%	138,267	2.5%
1996																
1997	3,458	4,856,406	3,908,299	80.5%	505,887	10.4%	146,891	3.0%	40,260	0.8%	16,537	0.3%	111,559	2.3%	126,974	2.6%
1998	3,932	5,706,979	4,457,801	78.1%	667,532	11.7%	184,897	3.2%	37,919	0.7%	36,641	0.6%	190,009	3.3%	132,181	2.3%
1999	4,458	5,885,583	4,507,827	76.6%	722,484	12.3%	219,161	3.7%	53,751	0.9%	35,715	0.6%	166,139	2.8%	180,506	3.1%
2000	3,888	5,507,850	4,131,793	75.0%	707,647	12.8%	234,113	4.3%	35,494	0.6%	36,286	0.7%	173,827	3.2%	188,690	3.4%
2001	6,645	5,744,603	4,139,490	72.1%	831,251	14.5%	237,747	4.1%	68,508	1.2%	43,965	0.8%	202,400	3.5%	221,243	3.9%
2002	7,321	5,823,007	4,273,205	73.4%	841,970	14.5%	206,067	3.5%	65,492	1.1%	27,456	0.5%	203,472	3.5%	205,343	3.5%
2003	7,358	6,038,284	4,387,271	72.7%	824,784	13.7%	271,010	4.5%	46,604	0.8%	31,071	0.5%	255,210	4.2%	222,333	3.7%
2004	5,841	5,753,343	4,122,922	71.7%	860,798	15.0%	256,920	4.5%	44,419	0.8%	40,400	0.7%	177,506	3.1%	250,377	4.4%
2005	5,946	5,810,188	4,096,766	70.5%	892,067	15.4%	298,365	5.1%	41,571	0.7%	30,069	0.5%	185,494	3.2%	265,856	4.6%
2006	5,877	5,695,856	3,884,097	68.2%	928,115	16.3%	335,527	5.9%	60,711	1.1%	45,252	0.8%	215,527	3.8%	226,628	4.0%

**Note:** Children include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

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**TABLE F-12. Number and Percent of NSLP Participants Excluding Children not in School, by Immigrant Status Group: Free Lunches (weighted)**

	Total Children Receiving Free Lunches		Native-Born Children with Native-Born Parents		Native-Born Child with Foreign-Born Parents								Foreign-Born Child			
					Authorized immigrant parents Only		Unauthorized immigrant parents Only		Unauthorized and Authorized Immigrant Parents		Immigrant Status of Parents Unknown		Authorized Immigrant		Unauthorized Immigrant	
	Unweighted	Weighted	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1994	9,507	12,529,110	9,800,146	78.2%	1,293,982	10.3%	280,973	2.2%	36,859	0.3%	59,047	0.5%	657,874	5.3%	400,229	3.2%
1995	8,953	13,064,619	10,020,339	76.7%	1,346,556	10.3%	365,621	2.8%	81,142	0.6%	89,535	0.7%	668,670	5.1%	492,755	3.8%
1996																
1997	8,291	11,316,079	8,593,626	75.9%	1,289,660	11.4%	366,624	3.2%	69,738	0.6%	101,541	0.9%	493,720	4.4%	401,172	3.5%
1998	8,814	13,330,189	10,025,219	75.2%	1,602,160	12.0%	495,460	3.7%	96,443	0.7%	111,291	0.8%	589,785	4.4%	409,830	3.1%
1999	9,065	12,661,483	9,455,115	74.7%	1,381,289	10.9%	498,176	3.9%	79,297	0.6%	126,318	1.0%	654,505	5.2%	466,784	3.7%
2000	8,646	12,562,023	9,329,047	74.3%	1,372,487	10.9%	576,891	4.6%	93,225	0.7%	128,711	1.0%	533,814	4.2%	527,847	4.2%
2001	13,990	12,890,962	9,428,321	73.1%	1,558,519	12.1%	590,412	4.6%	104,175	0.8%	122,991	1.0%	540,676	4.2%	545,869	4.2%
2002	14,957	12,839,347	9,349,269	72.8%	1,514,358	11.8%	583,278	4.5%	85,858	0.7%	126,238	1.0%	636,450	5.0%	542,467	4.2%
2003	15,238	13,289,526	9,622,936	72.4%	1,609,601	12.1%	736,629	5.5%	61,624	0.5%	128,896	1.0%	528,641	4.0%	601,199	4.5%
2004	13,029	13,562,567	9,856,704	72.7%	1,519,507	11.2%	750,807	5.5%	60,229	0.4%	144,427	1.1%	553,940	4.1%	676,953	5.0%
2005	13,249	13,361,989	9,748,489	73.0%	1,532,851	11.5%	778,830	5.8%	71,011	0.5%	145,983	1.1%	499,160	3.7%	585,666	4.4%
2006	13,154	13,448,528	9,698,175	72.1%	1,586,075	11.8%	827,641	6.2%	82,307	0.6%	165,084	1.2%	498,518	3.7%	590,728	4.4%

**Note:** Children include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

**Source:** Urban Institute analysis of U.S. Current Population Survey, Annual Social and Economic Supplement, with immigrant status assignments and imputations of program eligibility and participation provided by the Transfer Income Model, version 3 (TRIM3). The Urban Institute maintains and develops the TRIM3 model with primary funding from the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (HHS/ASPE).

**TABLE F-13. Number and Percent of NSLP Participants Excluding Children not in School, by Immigrant Status Group: Reduced-Price Lunches (weighted)**

	Total Children Receiving Reduced-Price Meals		Native-Born Children with Native-Born Parents		Native-Born Child with Foreign-Born Parents						Foreign-Born Child					
					Authorized immigrant parents Only		Unauthorized immigrant parents Only		Unauthorized and Authorized Immigrant Parents		Immigrant Status of Parents Unknown		Authorized Immigrant		Unauthorized Immigrant	
					N	%	N	%	N	%	N	%	N	%	N	%
	Unweighted	Weighted	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1994	1,582	1,979,273	1,511,642	76.4%	252,737	12.8%	61,082	3.1%	17,351	0.9%	5,150	0.3%	57,409	2.9%	73,902	3.7%
1995	1,643	2,288,774	1,751,030	76.5%	248,407	10.9%	85,991	3.8%	13,305	0.6%	10,812	0.5%	93,260	4.1%	85,969	3.8%
1996																
1997	1,757	2,262,943	1,748,075	77.2%	220,650	9.8%	100,428	4.4%	26,255	1.2%	8,653	0.4%	75,077	3.3%	83,804	3.7%
1998	1,990	2,717,407	2,049,398	75.4%	331,795	12.2%	110,296	4.1%	21,762	0.8%	9,850	0.4%	112,109	4.1%	82,198	3.0%
1999	2,258	2,786,991	1,994,847	71.6%	410,103	14.7%	146,169	5.2%	31,852	1.1%	16,147	0.6%	99,459	3.6%	88,414	3.2%
2000	2,083	2,614,866	1,831,771	70.1%	403,129	15.4%	140,247	5.4%	26,160	1.0%	17,720	0.7%	87,667	3.4%	108,171	4.1%
2001	3,666	3,017,342	2,077,455	68.9%	473,660	15.7%	168,438	5.6%	46,319	1.5%	19,034	0.6%	101,670	3.4%	130,765	4.3%
2002	3,634	2,815,398	1,978,968	70.3%	440,603	15.6%	125,059	4.4%	42,847	1.5%	6,802	0.2%	110,365	3.9%	110,755	3.9%
2003	3,688	2,845,755	1,982,937	69.7%	412,981	14.5%	153,931	5.4%	34,463	1.2%	17,065	0.6%	130,488	4.6%	113,890	4.0%
2004	3,064	2,878,857	2,003,694	69.6%	448,072	15.6%	161,071	5.6%	25,657	0.9%	17,233	0.6%	92,667	3.2%	130,464	4.5%
2005	3,233	2,937,395	2,060,975	70.2%	436,126	14.8%	177,732	6.1%	23,617	0.8%	4,933	0.2%	81,332	2.8%	152,681	5.2%
2006	3,202	2,943,241	1,923,357	65.3%	499,427	17.0%	200,031	6.8%	35,603	1.2%	21,730	0.7%	112,029	3.8%	151,064	5.1%

**Note:** Children include children ages 5 to 18. Authorized immigrants include naturalized citizens, legal permanent residents, temporary permit and visa holders (e.g., students and temporary workers, refugees and asylees). Unauthorized immigrants include immigrants who entered the country illegally or overstayed their visas.

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