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**Welfare Reform's Chilling Effects on Non-citizens:  
Changes in Non-citizen Welfare Reciprocity or Shifts in Citizenship Status?\***

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Forthcoming in *Social Science Quarterly*

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## Welfare Reform's Chilling Effects on Non-citizens:

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#### ABSTRACT

*Objective.* In the mid-1990s, welfare usage declined disproportionately among non-citizens, prompting some policy analysts to argue that the 1996 Welfare Reform Act (PRWORA) had a “chilling” effect on welfare receipt among eligible non-citizens. But naturalization among non-citizen welfare recipients could account for the disproportionate decline. This paper evaluates the role of naturalizations in producing the so-called “chilling effect.” *Methods.* The research uses longitudinal data (the Survey of Program Dynamics) to decompose changes in citizen and non-citizen welfare receipt into parts due to shifts in citizenship status and shifts in welfare receipt. *Results.* A substantial portion of the relative decline in welfare usage among non-citizens can be explained by shifts in naturalization. *Conclusions.* A more cautious interpretation of results about the effects of welfare reform on immigrants is called for, particularly results of analyses that use cross-sectional data and disaggregate the change in welfare receipt by citizenship status.

## Welfare Reform's Chilling Effects on Non-citizens:

### Changes in Non-citizen Welfare Reciprocity or Shifts in Citizenship Status?

The Personal Responsibility and Work Opportunity Reconciliation Act (the 1996 Welfare Reform Act) essentially ended guaranteed income support for non-citizens who arrived in the U.S. after August 22, 1996 while increasing the complexities and state-level variability in welfare rules (Zimmerman and Tumlin 1998; Espenshade, Baraka, and Huber 1997). The legal changes brought about by welfare reform are expected to reduce welfare reciprocity among non-citizens who are made ineligible for welfare. In addition, some argue that welfare reform will affect immigrants in a much broader way by altering the political and social receiving context for immigrants in the United States (Fix and Passel 1999, 2002; Fix 2001; Borjas 2001a, 2001b; Fix and Zimmerman 2001; Capps 2001; Hagan, Rodriguez, and Capps, 1999; Zimmermann and Fix 1998). The argument is that because of immigrants' particularly vulnerable legal and social status, the immigrant-specific provisions of welfare reform may have increased immigrants' confusion about their eligibility for welfare benefits and heightened their mistrust or intimidation of the U.S. government. This could have reduced immigrants' willingness to cooperate and interact with welfare agencies even if they remain eligible for welfare. Referred to as a "chilling effect" (Fix and Passel 1999), welfare reform is expected to reduce welfare reciprocity more among non-citizens and their children than among other groups since non-citizens are more politically and legally vulnerable than citizens.

If there were good support for the idea that chilling has occurred, this would have some important implications for how welfare reform policy may be evaluated as the policy undergoes reauthorization in the coming year. Prior to welfare reform, immigrant families were more likely than native families to be impoverished (Bean, Van Hook and Glick 1997) and to participate in cash and non-cash welfare programs (Bean et al., 1997; Borjas and Hilton 1996). If welfare reform has

had a “chilling effect,” this would mean that welfare reform has gone beyond its intended goals by reducing receipt of an important income source (welfare) and increasing hardship for a population it never meant to target (many of whom are the U.S. born children of non-citizens) (Fix and Zimmermann 2001).

To evaluate the effects of welfare reform on immigrants, researchers have tended to examine trends in caseloads and reciprocity levels among immigrants by citizenship status with cross-sectional data. For example, the evidence for chilling comes from the finding that, following the enactment of welfare reform, welfare caseloads and reciprocity levels dropped substantially for non-citizens while remaining constant or (in some cases) growing for naturalized citizens (Fix and Passel 1999, 2002; Borjas 2001a, 2001b). The key finding is the disproportionately large decline among non-citizens. Caseloads dropped among most groups due to the expanding economy of the late 1990s (Bell 2001), but the decline was steeper among non-citizens. This occurred even though most non-citizens remained eligible to receive welfare even after welfare reform was passed. Many remained eligible because of legal provisions that grandfathered-in immigrants who were living in the country when welfare reform was passed, and because many non-citizens could receive welfare on behalf of their U.S. born children.

However, the research on the effects of welfare reform on immigrants has not adequately accounted for shifts in the size of the non-citizen and citizen populations living in the United States. An unprecedented number of non-citizens naturalized during the mid-1990s. In 1992, 240 thousand immigrants naturalized. The numbers of naturalizations steadily increased throughout the first half of the decade until naturalizations peaked in 1996 at over one million. If some newly-naturalized citizens were welfare recipients, this would affect the citizen-composition of caseloads. Rather than exiting welfare in relatively high numbers, non-citizen recipients may have instead shifted to the naturalized citizen category. This could have the additional effect of slowing the decline in, or even

increasing, the naturalized citizen caseload. More recent work on welfare reform has reduced the focus on caseloads and shifted to examining with cross-sectional data welfare reciprocity rates among non-citizens and naturalized citizens (Fix and Passel 2002). Even these analyses are problematic. If naturalization increased more among welfare recipients than non-recipients, this could produce a relative decline in reciprocity rates among non-citizens.

Fix and Passel (1999, 2002) have explored this issue by examining the implications of alternative hypothetical scenarios of the number of non-citizen recipients who may have naturalized. They conclude that the disproportionate decline in the non-citizen caseload cannot be explained by the naturalization of non-citizen recipients. However, they do not (nor does anyone else) explore this possibility empirically with longitudinal data. By using longitudinal data with repeated measures of welfare usage and citizenship, I show that a substantial amount of the disproportionate decline in welfare receipt among non-citizens (which in previous work been interpreted as a “chilling” effect) can be attributed to shifts in citizenship.

## **Background**

Welfare Reform set in motion new social welfare policy that could substantially alter the receiving context for immigrants in the United States. It introduced restrictions in welfare usage, increased the complexities in welfare rules, and introduced an incentive for welfare recipients to naturalize (Espenshade, Baraka, Huber, 1997). Even prior to Welfare Reform during the 1980s and 1990s, the federal government and some states increased restrictions on immigrants’ access to public resources. In the early 1980s, Congress limited new immigrants’ eligibility for public assistance during the three years following their official settlement in the United States<sup>1</sup>. In the early 1990s, the state of California overwhelmingly adopted Proposition 187, which barred unauthorized aliens from

<sup>1</sup> Refugees and asylees were excluded from the new provisions.

public education, nonemergency health benefits and social services<sup>2</sup>. Then in 1996, Congress enacted the Personal Responsibility and Work Reconciliation Act (PRWORA), making many legal non-citizens ineligible for most federally funded benefits (Zimmerman and Tumlin 1998). The specific details of welfare reform are presented elsewhere (Zedlewski and Giannarelli 2001; Zimmerman and Tumlin 1998), but in general, eligibility for welfare is now linked to visa status (refugees versus others), work history, and naturalization. With the exception of refugees, asylees, and veterans and their families, most immigrants are now ineligible for most types of public assistance until they have worked for 40 quarters (ten years) or become an U.S. citizen.

Welfare reform also increased the complexity of immigrant welfare policy, which may have confused immigrants about whether they were eligible for benefits. The immigrant eligibility restrictions included in the 1996 Welfare Reform Act have occurred incrementally and have differed by welfare program and by state (Zimmerman and Tumlin, 1998; U.S. General Accounting Office, 1998). The full restrictions on eligibility for most welfare programs apply primarily to new immigrants and do not apply for most immigrants who arrived in the country prior to the welfare reform enactment date in 1996. Only in the case of Food Stamps were pre-1996 recipients actually removed from the rolls and, in some states, benefits were later reinstated.

Because non-citizens may qualify for welfare by naturalizing, and because some states have actively funneled welfare recipients into naturalization programs (Zimmermann and Tumlin 1998), welfare reform may have introduced an additional incentive for welfare recipients or would-be recipients to naturalize (Borjas 2001a; Fix 2001; Clark, Van Hook, and Passel 2001). Naturalizations increased substantially since the passage of welfare reform (U.S. Immigration and Naturalization Service 2002), and some researchers have attributed the increase to immigrants' efforts to remain eligible for welfare (e.g., Borjas 2001a, 2001b). However, it is important to bear in mind that other

<sup>2</sup> Federal courts barred enactment of all but one of these provisions.

factors apart from PRWORA may account for the growth in naturalizations during the 1990s and, further, could account for a possible shift in the welfare and poverty composition of naturalized citizens. For example, the 2.7 million unauthorized migrants that legalized under IRCA during the late 1980s (many of whom were poor) may have contributed to the increase in the number of naturalizations by increasing the pool of those eligible to naturalize (Gonzalez-Baker, et al. 2000), and further could have increased welfare reciprocity and poverty rates among naturalized citizens by increasing the numbers of poor naturalized citizens. This alternative explanation is consistent with research on motivations for naturalization, which suggests that the reasons have not changed substantially since PRWORA was enacted. During both the early 1990s and the late (post-reform) 1990s, the most common reason provided by Hispanic immigrants for naturalization continued to be to participate fully in the U.S. political process; concern about retention of welfare benefits continued to be of only minor importance (Pachon and DeSipio 1994; Gonzales-Baker, et al. 2000).

### **Data and Sample**

To track changes in welfare usage and citizenship, I use the Survey of Program Dynamics (SPD). The SPD is a new data source that was designed and implemented by the U.S. Census Bureau to study the short- and medium-term effects of welfare reform. The study follows up a sub-sample of the original respondents of the 1992 and 1993 panels of the Survey of Income and Program Participation (SIPP). Each SIPP panel conducts interviews every four months for roughly 3 to 4 years. The SPD continues following a sub-sample (containing over-samples of poor and minority families), first in 1997 with the SPD Bridge Survey (a modified version of the March 1997 CPS), and then annually from 1998 to 2001 with the SPD survey. At this time, only the 1997 SPD Bridge survey and the 1998 SPD have been released. Still, the available data makes it possible to track the sub-sample for 5 to 6 years from 1992/93 to 1998. Because of the clustered, highly stratified



sampling design of the SIPP/SPD (Chakrabarty 1989), all the standard errors in this paper are adjusted to take into account design effects.

The original SPD sample contains 22,909 adults, among whom 2,074 are foreign-born<sup>3</sup>. I eliminate from this original sample 1,644 individuals (520 foreign born, 1,124 U.S. born), leaving an analytical sample of 21,265 individuals (1,554 foreign born, 19,711 U.S. born). Roughly 900 (84 foreign-born and 824 U.S. born) were eliminated from the sample because they were not successfully followed up in the SPD or did not provide information on welfare receipt either before or after welfare reform. About 300 were eliminated because they gave inconsistent responses on nativity or citizenship status (e.g., those who in one interview reported as U.S. born and in another interview reported as foreign-born). About 200 were dropped because they were born in Puerto Rico or other U.S. Outlying Areas; they comprise a group that may not be justifiably classified as native (because they share many characteristics of legal immigrants) but also do not fit well in the “immigrant” category because they are U.S. citizens by birth. I eliminated about 130 individuals who were born in countries that traditionally have sent a large proportion of the refugees and asylees to the United States<sup>4</sup>. Refugees and asylees were dropped because they fall into a different legal category from other legal immigrants and do not experience the same post-reform welfare restrictions. Finally, 106 foreign born were eliminated because they may have become categorically ineligible for welfare following welfare reform. This group consists of working-aged (18-64) non-disabled non-citizens who had been living in the country less than ten years, live in a state that has a relatively less

<sup>3</sup> This excludes children ages 0-17 and those who did not reporting a specific race or ethnicity.

<sup>4</sup> These countries include Cuba, Nicaragua, the former Soviet Union, Romania, Poland, Afghanistan, Iran, Ethiopia, Vietnam, Laos, and Cambodia. During the 1980s, 90% of refugees/asylees who were admitted to the United States came from one of these countries and 91% of immigrants from these countries were admitted as refugees or asylees (Bean, Van Hook, and Glick, 1997).

generous post-reform welfare policy toward immigrants (Zimmermann and Tumlin 1998), and had not been receiving SSI during the pre-reform period (because those who were SSI recipients at the time welfare reform was enacted were eligible to continue receiving welfare).

*Welfare Receipt.* The SIPP collects monthly information about welfare receipt and the SPD collects information about welfare receipt in the previous calendar year. This paper examines welfare reciprocity for three federally-funded programs: Food Stamps, AFDC/TANF, and SSI. TANF (formerly AFDC) provides income support to families with children, SSI provides income to the blind, disabled and elderly, and Food Stamps provides non-cash food vouchers to poor households. Welfare reciprocity is measured for the twelve-month period at the beginning and end of the SIPP/SPD study period: 1992 or 1992, and 1997. The specific times for each panel vary by the panel (1992 or 1993) and rotational group (i.e., month) in which the respondent was originally interviewed. Individuals are coded as receiving welfare if they either reported receiving benefits or were reported as being covered by the program. This ensures that welfare beneficiaries who did not personally receive or report a welfare payment are still counted as recipients. Even though it is possible to measure welfare reciprocity on a monthly basis with SIPP data, it is not possible in the later SPD surveys. To maintain consistency across time, individuals are counted as recipients if they received welfare during any month of the twelve-month period in question.

*Nativity/Citizenship.* The SIPP first collects information on naturalization status and migration history at the time of the second interview, and the SPD again collects these data in the Bridge and annual surveys (thus citizenship is measured three times). Some respondents reported citizenship and nativity in one interview but not in others. For these cases, I make the assumption that citizenship and nativity did not change over time. Other foreign-born respondents reported as naturalized citizens even though they had not been living in the United States long enough to qualify for naturalization (5 years in most cases). Following Passel and Clark (1998, 1997), I recode foreign-

born individuals who had reported as a citizen but had lived in the U.S. less than five years as non-citizens<sup>5</sup>. I recode citizenship only for the 1992/93 measures of citizenship; by 1998, all foreign born in SPD cohort had been living in the U.S. long enough to qualify for naturalization. As discussed above, about 300 respondents made inconsistent reports on nativity and/or citizenship. I conducted all analyses both with and without the inconsistent cases, but the results were not substantially different. In the end, I opted to eliminate the inconsistent cases.

*Other Variables.* In multivariate models of welfare receipt, I control for factors that are associated with welfare eligibility and participation (e.g., Van Hook 2000; Bean, Van Hook, and Glick 1997; Hao and Kawano 2001). These factors include age, age-squared, marital status (not currently married, never married, married), educational attainment (less than high school, high school graduate, at least some college), family income-to-poverty ratio, race/ethnicity (non-Hispanic white, non-Hispanic black, non-Hispanic Asian, and Hispanic), and the presence of children in the household (ages 0-5 and 6-17).

## **Results**

The annual number of non-citizens who naturalized increased substantially during the 1990s. The Immigration and Naturalization Service (U.S. Immigration and Naturalization Service 2002) statistics show that naturalizations doubled from 240 thousand in Fiscal Year 1992 to 488 thousand in FY1995, spiked at 1,045,000 in FY1996 (more than one-half million more than the two adjacent years), and increased by 80 percent between FY1998 and FY1999 (from about 463 to 840 thousand) (Figure 1, dashed line). However, it is not at all clear that the increase in naturalizations, particularly the spike in 1996, is the response of non-citizens to PRWORA. The reason is that the number of naturalizations—including the 1996 spike—roughly parallels the number of admissions five years

<sup>5</sup> Legal permanent residents with a citizen spouse become eligible to naturalize after only 3 years. This group is small, and the five-year cut-off was therefore used in all cases.

before (Figure 1, dotted line). The ratio of naturalizations to admissions (solid line) remains roughly level throughout the 1990s until 1997. If immigrants naturalized in greater proportions in response to changes in social welfare or immigration policy, this most likely did not occur until the late 1990s and not in 1996<sup>6</sup>.

[Figure 1 here]

The SPD follows a cohort from 1992/93 to 1998, and thus captures information about those who naturalized (or failed to) between the time when naturalizations were at a low (early 1990s) to the two years following the 1996 naturalization “spike.” It does not yet contain information about those who naturalized during the end-of-decade increase in FY1999. A substantial portion of the cohort appears to have naturalized during this time period. Within the foreign-born population represented in the SPD cohort (those present in the country in the early 1990s), 40.5 percent reported they were naturalized citizens in 1992/93. By 1998, this increased to 63.7 percent. Nearly forty percent of non-citizens in the cohort naturalized. Also, although welfare recipients initially had much lower naturalization levels than non-welfare recipients (22.6 versus 44.2 percent), the gap closed somewhat by 1998 (52.7 versus 65.9 percent). Perhaps even more interesting is that welfare recipients were just as likely as non-recipients to have naturalized (39% of both groups naturalized) and more likely than poor non-recipients to have naturalized (among whom only 30% naturalized).

The new growth in naturalization among welfare recipients was sufficiently large to affect the number and percentage of non-citizens versus naturalized citizens who receive welfare. I

<sup>6</sup> One could make the argument that even though the ratio of naturalizations to prior admissions did not increase significantly in 1996, the *actual* number of naturalizations exceeded the *expected* number. Since most of the IRCA legalization recipients were from Mexico and Mexicans typically have low rates of naturalization (Jasso and Rosenzweig 1986), one would expect a lower ratio of naturalizations to admissions than usual for 1996. Resolving this issue goes beyond the scope of this paper.

demonstrate this in detail here for the case of AFDC/TANF. Declines in AFDC/TANF receipt among non-citizens arguably can most convincingly provide evidence of a chilling effect among eligible immigrants than declines in the other two programs. The reason is that most immigrant families include U.S.-born children and so remained eligible for AFDC/TANF throughout the 1990s. In contrast, immigrant families were actually kicked off Food Stamps and were threatened to be removed from SSI. Therefore, other forces may have contributed to declines in caseloads in the cases of Food Stamps and SSI other than intimidation or confusion.

Table 1 (first column, top panel) presents estimates of the number of non-citizens and citizens in the SPD cohort who reported receiving TANF/AFDC from 1992/93 to 1997. The numbers do not correspond with actual welfare caseloads because of sampling error and because the SPD sample consists of a cohort (immigrants who arrived after 1992 are not included in the estimates). Nevertheless, the number of recipients represented in the SIPP/SPD cohort comes remarkably close to the actual number of welfare recipients. The SIPP/SPD estimate falls within 5% of the TANF/AFDC caseload numbers obtained from administrative sources (U.S. House of Representatives 1997)<sup>7</sup>.

[Table 1 here]

In the SPD cohort, the number of naturalized citizens receiving AFDC/TANF increased by 86.6 thousand (from 68 to 154.5 thousand), while the number of non-citizens receiving AFDC/TANF

<sup>7</sup> Reporting error was of similar magnitude for SSI as for AFDC/TANF, but in the case of Food Stamps, the percentage of recipients who reported receipt in the SIPP declines from 94 to 64 percent from 1992/2 to 1997. Therefore, the SPD/SIPP estimates are likely to provide a good indication of changes in AFDC/TANF and SSI caseloads and reciprocity levels for the cohort. Greater caution is required in the interpretation of findings related to Food Stamps receipt since declines in reporting could be misinterpreted as declines in reciprocity (hence another reason to focus on TANF/AFDC).

declined by 327.6 thousand (from 483.6 to 156 thousand) (Table 1, first column). This amounts to a relative decline in the non-citizen AFDC/TANF caseload of 414 thousand (a statistically significant difference). The second column of Table 1 shows the same results, but expresses increases and declines as percentages of the 1992/3 caseload. The naturalized citizen caseload increased by 127 percent while the non-citizen caseload declined by 68 percent.

The lower panel of Table 1 (first column) decomposes the change in naturalized and non-citizen caseloads into parts due to transitions in welfare and citizenship status, including shifts in and out of welfare, shifts from non-citizen to naturalized citizen, and combinations of changes in welfare receipt and naturalization status. The change is decomposed as shown in the following table, where  $c$  and  $n$  indicate naturalized citizen and non-citizen caseloads,  $nc$  represents those who naturalized since 1992/93,  $cc$  are those who already were naturalized in 1992/93, and  $nn$  are non-citizens who did not naturalize. The subscripts indicate the years of welfare receipt (1 = 1992/93, 2 = 1997).

Group	Total Change	<u>Newly Naturalized</u>			<u>Did Not Change Status</u>	
		Stayed on Welfare	Exited Welfare	Entered Welfare	Exited Welfare	Entered Welfare
Naturalized	$c_2 - c_1 =$	$+ nc_{1,2}$		$+ nc_{,2}$	$- cc_{1,}$	$+ cc_{,2}$
Non-citizen	$n_2 - n_1 =$	$- nc_{1,2}$	$- nc_{1,}$		$- nn_{1,}$	$+ nn_{,2}$

Generally, naturalization contributed to losses in the non-citizen caseloads that then appear as gains for the naturalized citizen caseload. Thus, the naturalized citizen AFDC/TANF caseload increased by 64 thousand (94%) due to naturalization of welfare recipients (the  $nc_{1,2}$  term). This contributed directly to a decline of 64 thousand (13%) in the non-citizen caseload. Naturalization among new welfare recipients led to an increase of 53 thousand (78%) in the naturalized citizen caseload ( $nc_{,2}$ ). If these people had not naturalized, they would have added 53 thousand to the non-citizen caseload (shown in the second column of Table 1 in parentheses as an 11 percent gain that would have occurred to the non-citizen caseload if no one had naturalized). Naturalization among

those who went off welfare reduced the non-citizen caseload by 82 thousand or 17 percent ( $nc_{1,}$ ), but this decline would have occurred even if no one naturalized. Finally, the naturalized citizen AFDC/TANF caseload declined by about 30 thousand (45%) due to shifts in welfare receipt among those who did not shift citizenship status (with 10 thousand going on welfare and 40 thousand leaving welfare) ( $cc_{,2} - cc_{1,}$ ). The non-citizen caseload experienced a loss of similar magnitude (182 thousand or 44%) due to shifts in welfare alone ( $nn_{,2} - nn_{1,}$ ).

I use this information to estimate what the change in the non-citizen and naturalized citizen caseload would be if no one had naturalized since 1992/93 (bottom row). All newly naturalized recipients and welfare entrants are counted as non-citizen rather than naturalized recipients<sup>8</sup>. The results suggest that if no one had naturalized, the 1997 naturalized citizen caseload would have been much smaller in 1997 than it actually was and the non-citizen caseload would have been much larger. Moreover, the *relative* declines in the non-citizen caseload are reduced substantially and become statistically insignificant when naturalization is taken into account. For example, the percentage change in the AFDC/TANF caseload was 127% for naturalized citizens and -68% for non-citizens (a relative difference of 195%). But if no one had naturalized, the naturalized and non-citizen caseloads would have declined by equal amounts (about 45%). Overall, the disproportionate decline in the non-citizen caseload for AFDC/TANF, SSI, and Food Stamps (as well as all types of welfare combined) can be entirely explained by shifts in citizenship status and cannot be explained by shifts in welfare receipt among non-citizens (not shown).

It is important to go beyond caseloads and examine welfare reciprocity (caseload as a percentage of population). Citizenship shifts in welfare caseloads (the numerator) could be offset by citizenship shifts in the population (the denominator), particularly if welfare recipients and non-recipients naturalized at about the same rate. In 1992/93, 1.4 percent of naturalized citizens versus

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<sup>8</sup> Change in caseload for naturalized:  $c_2 - c_1 = -cc_{1,} + cc_{,2}$ ; non-citizen:  $n_2 - n_1 = -nc_{1,} + nc_{,2} - nn_{1,} + nn_{,2}$ .

6.6 percent of non-citizens reported receiving AFDC (Table 1, third column). The citizenship differential narrowed by 1997 because recipiency increased slightly among naturalized citizens and declined among non-citizens. These findings are entirely consistent with those generated from analyses of the Current Population Survey (Borjas 2001a, 2001b; Fix 2001; Fix and Passel 2002)<sup>9</sup>.

However, about half of the disproportionate decline in recipiency among non-citizens can be explained by shifts out of the non-citizen population due to naturalization. To show this, I decompose the change in recipiency into parts due to shifts in citizenship and welfare receipt, where  $C$  and  $N$  are the total numbers of naturalized and non-citizens:

Group	Total Change	Naturalization	Newly Naturalized			Did Not Change Status	
		Among Non-recipients	Stayed on Welfare	Exited Welfare	Entered Welfare	Exited Welfare	Entered Welfare
Nat'd	$(c_2/C_2 - c_1/C_1) =$	$(c_2/C_2 - c_2/C_1)$	$+ nc_{1,2}/C_1$		$+ nc_{,2}/C_1$	$- cc_{1,}/C_1$	$+ cc_{,2}/C_1$
Noncit	$(n_2/N_2 - n_1/N_1) =$	$(n_2/N_2 - n_2/N_1)$	$- nc_{1,2}/N_1$	$- nc_{1,}/N_1$		$- nn_{1,}/N_1$	$+ nn_{,2}/N_1$

The results of the decomposition are shown in the lower panel of the third column in Table 1. Naturalization among *non-recipients* increased the denominator but not the numerator for the citizen rate, resulting in a decline of 1.1 percentage points in recipiency levels among naturalized citizens. At the same time, naturalization among non-recipients decreased the denominator for the non-citizen rate, leading to an increase of 0.6 percent points for non-citizens. These effects were largely offset by naturalization among recipients. More important, naturalization among those who went on welfare contributed an increase of 1.1 percentage points to naturalized citizen recipiency levels—this would have added 0.7 percentage points to non-citizen recipiency if they had not naturalized (shown in parentheses). Overall, if no one had naturalized (bottom row), welfare recipiency would have

<sup>9</sup> The levels are different because I use individuals as the unit of analysis whereas other researchers rely on households (Borjas, 2001a, 2001b) or families (Fix and Passel 2002; Van Hook, Glick, and Bean 1999).



declined rather than increased among naturalized citizens, and it would have declined slightly less among non-citizens. Non-citizens appear to have experienced a decline of 3.7 percentage points in AFDC/TANF reciprocity relative to naturalized citizens (shown in the “Difference” column), but this difference is reduced to 2.3 percentage points (a 39% reduction) and becomes statistically insignificant when transitions in citizenship status are accounted for. Thus about two-fifths of the disproportionate decline in AFDC/TANF reciprocity among non-citizens that has been observed in previous research may be attributed to shifts in naturalization and not shifts out of welfare.

What about other types of welfare? The top panel in Table 2 summarizes the results for TANF, SSI, Food Stamps, and receipt of any of the three welfare programs. In general, non-citizens experienced greater relative declines in reciprocity than naturalized citizens (see rows labeled “Actual” reciprocity, last column). However, when the influence of naturalization is eliminated (see rows labeled “If No One Naturalized,” last column), these differences are reduced dramatically and lose statistical significance (except for all types of welfare combined). In the case of SSI, the relative decline is reduced by two-thirds, and for Food Stamps and any type of welfare, it is cut in half.

[Table 2 here]

Clearly, evidence for or against the idea that welfare reform has “chilled” non-citizen welfare usage through intimidation and confusion cannot be found by simply examining with cross-sectional data shifts in caseloads or reciprocity among non-citizens and naturalized citizens. Nevertheless, the longitudinal descriptive results still do not provide strong evidence for or against the chilling effects hypothesis. One distinct possibility is that economic and social conditions improved for citizens more than for non-citizens. During the mid-to-late 1990s’ economic boom, the proportion eligible to receive welfare declined (Bell 2001). If eligibility declined more for citizens than non-citizens one would also expect welfare reciprocity to decline more for citizens than for non-citizens. The fact that welfare reciprocity changed by roughly equal amounts for both groups would, in such a case, actually

provide support for the chilling hypothesis because it would suggest that more non-citizens went off welfare than expected given the percentage eligible.

I estimate multivariate logistic regression models of welfare reciprocity to examine whether the descriptive findings presented in this paper hold even after adjusting for characteristics affecting eligibility for welfare. Each individual contributes two observations to the analytical sample: one for the pre-reform period and another for the post-reform period ( $N = 3,136$ ). The models estimate the likelihood of receiving welfare in the given time period ( $W_{it}$ ) as a function of being a non-citizen ( $C$ ), time period ( $T$ ), the interaction between citizenship status and time period, and a set of time-varying variables associated with eligibility for welfare ( $X$ ) (education, income-to-poverty ratio, disability, marital status, age, age-squared, race/ethnicity, and presence of young children in the household):

$$\text{Ln}(W_{it}/(1-W_{it})) = \alpha + \beta C + \gamma T + \eta(CT) + \delta'X.$$

Thus,  $\beta$  is the difference between citizens and non-citizens in the logged-odds of welfare receipt during the pre-reform period (positive values indicate higher levels of reciprocity among non-citizens) and  $(\beta+\eta)$  is the difference in the post-reform period. For each type of welfare and all types combined, the model is estimated using three different citizenship classification schemes: (1) current citizenship status at time  $t$ , (2) initial citizenship status as of 1992, and (3) transitions in citizenship status. The first set of equations provides results that would be comparable to a pooled analysis of cross-sectional data files from the pre- and post-reform periods. The second estimates changes in welfare receipt by citizenship status if naturalizations had not occurred since 1992, and the third provides greater insight into the relationship between shifts in citizenship status and welfare receipt.

I estimate models for each type of welfare separately as well as all three types combined. The time-citizenship interaction term is statistically significant only for models of SSI and all types of welfare with current citizenship status. In the cases of AFDC/TANF and Food Stamps, the changes in reciprocity from the pre- to the post-reform period do not differ significantly between non-

citizens and citizens once other factors are accounted for. This is true no matter how citizenship is measured, and therefore, the results provide no discernable evidence of a chilling effect associated with these programs. The model estimates (odds ratios) for all types of welfare combined and SSI are presented in Table 3. The models do not include the interaction between time and citizenship unless it is statistically significant.

[Table 3 here]

When current citizenship status is used, the results pertaining to all types of welfare and SSI parallel the descriptive results (Model 1). During the pre-reform period, non-citizens were 2.48 times as likely to use any of the three types of welfare and 3.79 times as likely to use SSI as naturalized citizens, even after accounting for factors related to eligibility. In line with the chilling effects hypothesis, these differences narrowed by the time of the post-reform period. Reciprocity of any type of welfare increased for naturalized citizens by 54 percent while it decreased among non-citizens by 39 percent (odds ratio =  $1.535 * .398 = .611$ ). Similarly, receipt of SSI increased for naturalized citizens over 300 percent and but increased for non-citizens by only 10 percent. By 1997, non-citizens were as likely to use any type of welfare (odds ratio =  $2.48 * .398 = .987$ ) and only 40 percent more likely to use SSI (odds ratio =  $3.79 * .363 = 1.37$ ) as naturalized citizens.

When *initial* citizenship status or transition in citizenship is used (Models 2 and 3), the results show that those who were non-citizens in 1992, particularly those who naturalized between 1992 and 1998, were more likely to use any type of welfare or SSI than other citizenship groups. However, the interaction between time period and citizenship status is not significant, indicating that change in welfare receipt does not significantly differ between citizen and non-citizen cohorts. Thus, even after controlling for the influence of factors related to eligibility, the relative decline in reciprocity among non-citizens disappears after taking into account shifts in citizenship status.

## Conclusion

A substantial portion of the decline in non-citizen welfare caseloads and reciprocity rates can in fact be explained by naturalization. I demonstrate this by examining shifts in citizenship and welfare usage that occurred for a cohort from 1992 to 1998 with longitudinal data (the SPD). Both the descriptive results and the results that control for the influence of factors related to welfare eligibility show that the disproportionate decline among non-citizens appears only in results that use *current* citizenship status. The disproportionate decline diminishes substantially and loses statistical significance when *initial* or *transitions* in citizenship status are used.

This suggests that a more cautious interpretation of results about the effects of welfare reform on immigrants is called for, particularly results of analyses that (1) use cross-sectional data *and* (2) disaggregate the change in welfare receipt by citizenship status. Prior work on chilling effects has over-interpreted trends in citizen and non-citizen welfare caseloads and reciprocity by not taking into account the full influence of naturalization on changes in the size and composition of the citizen and non-citizen populations from the pre- to the post-reform periods. This does not mean that all cross-sectional analyses of immigrant welfare receipt are invalid. Naturalization does not present any special difficulties for analyses that do not break down the results by citizenship status, even if they are based on cross-sectional data.

It is important to emphasize that the results presented here do not entirely discount the chilling effect hypothesis. The descriptive analysis suggests that welfare receipt among those who were non-citizens in the pre-reform period in fact declined disproportionately in the case of all types of welfare combined. Roughly half of the decline remains unaccounted for after adjusting for naturalization. My major point, however, is that the disproportionate decline is not as large as it appears when cross-sectional data are used. Furthermore, one could argue that the increase in naturalizations during the 1990s, while perhaps not directly a response to PRWORA, is a type of

“chilling” effect whereby legally vulnerable non-citizens feel compelled to protect their legal and social rights in the United States by naturalizing. Our current understanding of why naturalizations increased during the 1990s is still largely tentative. Empirical work has yet to be conducted to better understand changes in naturalization and the potential linkages of such changes to changes in social and welfare policy.

The critique provided here represents a response to prior research on welfare reform, but also helps clear the ground for more meaningful assessments of the implications of welfare policy for immigrants. Policy-relevant research on the effects of welfare reform on immigrants must go beyond examining welfare behavior and track changes in long-term well-being among immigrants and their children (e.g., Lichter and Jayakody 2002). The emphasis on immigrant welfare reciprocity is particularly problematic because welfare receipt among immigrants tends to be interpreted in both positive and negative ways. Sometimes, as in the case of the “chilling” literature, immigrant welfare receipt is interpreted as an indicator of well-being. Immigrants who are able to access publicly-available resources are expected to be better positioned to adapt to life in the United States and provide support for their children. But critics of current immigration policy (e.g., Borjas 1998, 1999; Brimelow 1998; Camarota 2001) tend to interpret immigrant welfare receipt as an indicator of lack of incorporation and negative selection into immigrant flows. To assess what welfare reform will mean for immigrants in the long run, researchers need to develop and empirically test conceptual models of the relationships among immigration, welfare use and availability, and the process of adaptation and incorporation, rather than use assumptions about the meaning of immigrant welfare receipt as a basis for their interpretation of trends in welfare receipt or welfare caseloads.

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