

The National Child Benefit

An examination of the first fifteen years of Canada's refundable
tax credit for low-income families with children

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In 1918 the Canadian federal government began granting some families child benefits with the introduction of the Child Tax Exemption. Then in 1945 the federal government implemented the Family Allowance, which for the first time provided child benefits to all families with children. This financial support to families with children has continued to grow, and as of 2011/2012 the federal government allocated 4.6% of their expenses to child benefit payments. Of this \$12.7 Billion, \$10.05 Billion was given directly to middle- and low-income families through progressive, refundable tax credits known as the Canada Child Tax Benefit (CCTB), and the National Child Benefit (NCB).

The economic reasoning for these programs is clear. Children are our future, and it is in everyone's best interest that we put them in a position to succeed. There is also clear evidence that children that grow-up in poverty¹ suffer from short-term inequalities of opportunity that lead to long-term negative consequences. These short-term inequalities of opportunity go completely against Canada's ideals of being a meritocracy, and unfortunately children that grow up in poverty earn just over half the national average as adults, and have more than one and half times the chance to be in poor health and arrested (Duncan et al., 2010).

Fortunately these government transfers have been quite successful in reducing childhood poverty. In 2011 government transfers decreased childhood poverty rates from 23.5% to 13.3%.² While each program plays a key role, this paper will focus particularly on the NCB, which targets low-income families. The NCB aims to prevent and decrease the depth of childhood poverty and encourage family labour force participation. These mandates go together, as experts agree that the best and most sustainable solution for escaping poverty is finding employment.

¹ Unless otherwise indicated, childhood poverty will be defined as a child under the age of 18 living in a family unit that is below the after-tax low-income cut-off (AT-LICO). For further discussion about why the AT-LICO was chosen see p.13 in the Empirical Analysis section.

² These numbers are a bit higher as they are using the before tax LICO, as this information was only available with that measurement. This is the only example in this paper using before tax LICO.

The paper proceeds as follows. Section 1 will give a detailed description of both the reasoning behind the NCB and how it works. Section 2 examines research related to the NCB, childhood poverty and welfare mix. Section 3 discusses the empirical strategy and presents the results. Section 4 analyzes the trade-off of increasing the NCB Supplement. Section 5 concludes.

1. Descriptive Information

Enacted in 1998, the NCB is a joint initiative between the Canadian federal, provincial and territorial governments. The NCB was designed to achieve three goals: prevent and decrease the depth of childhood poverty, encourage labour market participation, and improve the efficiency of the federal and provincial/territorial child benefit programs.

Prior to 1998, low-income working families had been eligible for the Working Income Supplement (WIS), and in 1997 it had provided \$300 Million to Canadian families. In theory the WIS was a good concept, however in reality low-income families were not being rewarded for working, due to the WIS and provincial social assistance programs being administered separately. This created a huge disincentive for low-income families to work, as any new earned income would be cancelled out by lost social assistance. Furthermore at the time social assistance was needs-based which meant it increased with the number of family members; however income isn't needs-based and this meant some families with lots of children were actually losing money by working.

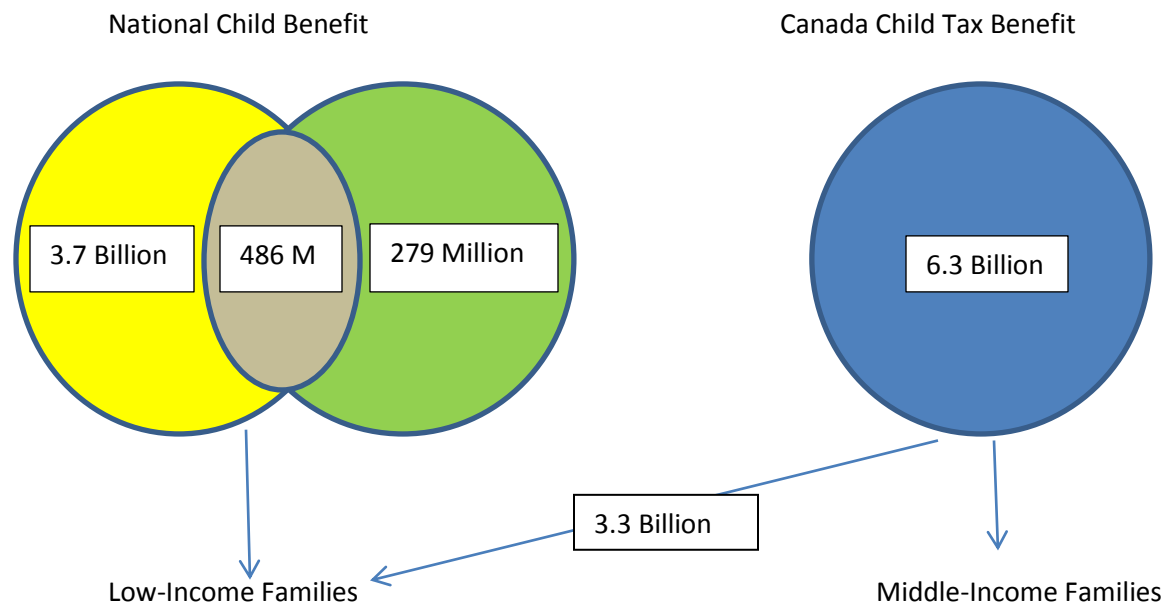
This huge disincentive to work that low-income families often face is due to the fact that joining the workforce results in the loss of social assistance and other benefits, which cancels out the new income earned from working. It is known as the "welfare wall." The welfare wall is a major problem for policy experts, as almost all experts agree that the best and most sustainable

way to escape poverty is through finding employment. Therefore to solve this problem, and encourage labour force participation the NCB was created. As the NCB progress report states, “The NCB is based on the principle that families are better off when parents are supported in their efforts to participate in the labour market (2013, p.1).”

The NCB is made-up of two parts. There is a monthly, progressive, refundable tax credit from the federal government known as the NCB Supplement that goes directly to low-income families. For the 2009/2010 benefit cycle the federal government spent \$3.7 billion on the NCB Supplement. There is also NCB Reinvestment and NCB Investment: benefits and services provided by provincial and territorial governments to all low-income families, which totaled \$765 million in 2009/2010.

Figure 1

How Federal Child Benefits Work (2009-2010 estimates)



Source: 2008 NCB Progress Report.

Yellow represents NCB Supplement, Grey represents NCB Reinvestment, Green represents NCB Investment and Blue represents Canada Child Tax Benefit.

Unlike the WIS, the NCB has its monthly payments integrated within social assistance payments to form a national platform of child benefits available to all low-income families. Thus low-income families receive monthly financial benefits from two areas (social assistance and NCB Supplement) whereas in the past they had only received social assistance. This allows low-income families that begin to make the transition into the workforce to keep a lot of their financial benefits, as the NCB Supplement is not taken away like social assistance is when you begin to work. This is known as an income-tested benefit system, as it rewards families for working by lowering the welfare wall.

At the same time, low-income families that are not working are no worse off as they still get at least the same total amount of financial benefits, and depending on how the provinces administer the program they might receive more financial benefits than before the NCB was created. If those families not working do not get more financial benefits it is due to provinces clawing-back the NCB Supplement. Each province has the option to claw-back some or all of the NCB Supplement from social assistance.³ If the province claws-back the NCB Supplement they take the money they have clawed-back and invest it in programs designed to benefit all low-income families. This is classified as NCB Reinvestment, and in 2009 reinvestments totaled \$486.1 Million. By reinvesting in new programs for low-income families outside of social assistance this further lowers the welfare wall, as these benefits are provided to all low-income families, not just those on social assistance.

Eligibility for the NCB Supplement depends on net family income listed on the tax return from the calendar year just before the benefit cycle begins. For example, to receive the full NCB

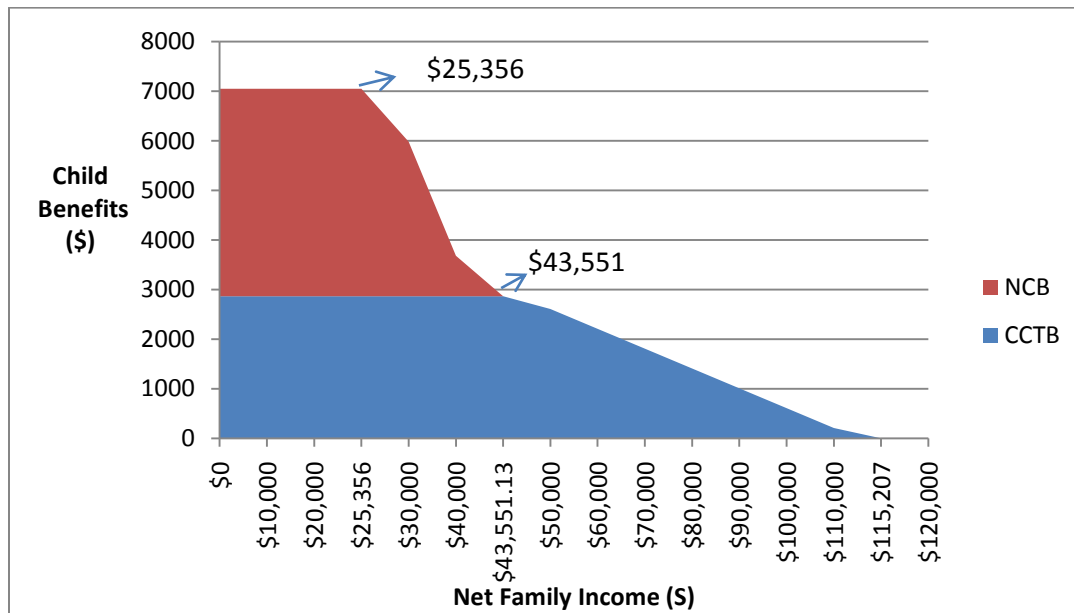
³ Currently only: Prince Edward Island, Yukon, Northwest Territory and Nunavut claw-back the full amount. If the province chooses to only claw-back some of the NCB Supplement or none of it, a person on social assistance would receive more than they would have before the NCB was created.

Supplement in 2013/2014⁴, a families' 2012 net family income had to be less than or equal to \$25,356. For 2013/2014 the full NCB Supplement for one child is \$185.08 a month or \$2220.96 a year. For a second child it is \$163.66 a month or \$1963.93 a year. And for each additional child it is \$155.75 a month or \$1869 a year. In addition any family that is eligible for the NCB Supplement gets the full CCTB amount, which is \$1433 a year per child.

Once a families' income becomes greater than \$25,356 the level of NCB Supplement they receive begins to decrease until they are only left with the full CCTB base (\$1433 per child).⁵ For example a family with two children will stop receiving the NCB Supplement when their family income reaches \$43,551.

Figure 2

Eligibility for NCB Supplement



Source: Canada Revenue Agency 2013/14 Canada Child Benefits Package. 2013/14 data for a family with 2 children ages 17 or younger.

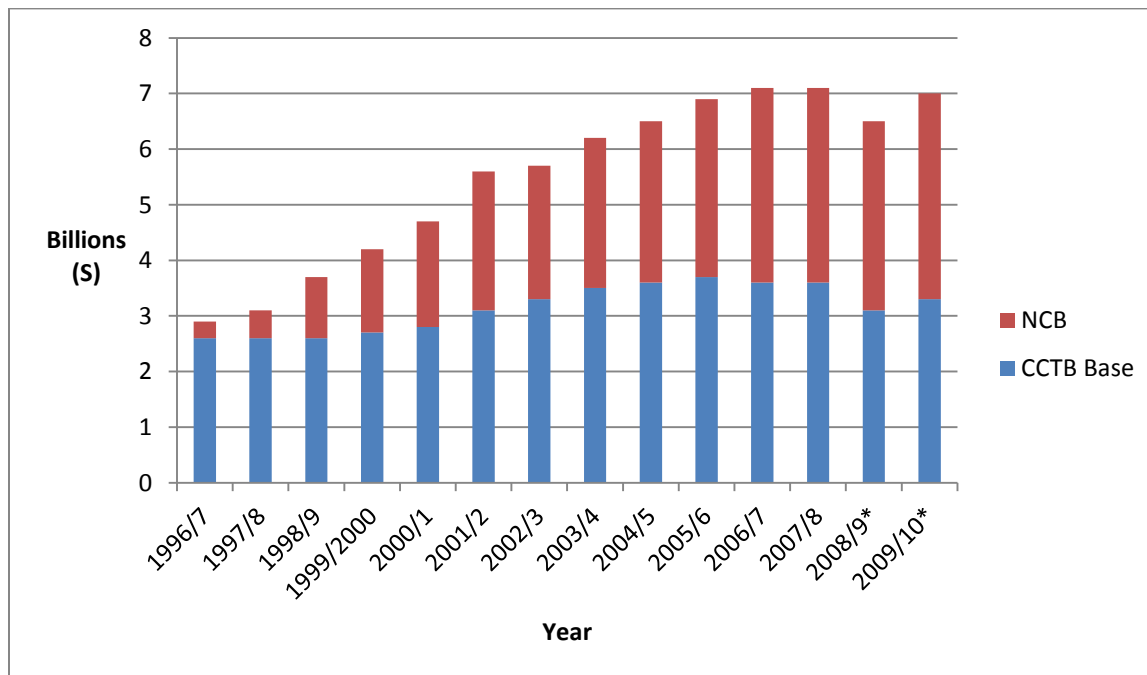
⁴ NCB supplements are received from July to the following June.

⁵ The NCB reduction rate changes depending on the number of children. The rate for 1 child is 12.2%, the rate for 2 children is 23% and the rate for 3 or more children is 33.3%.

When the NCB was implemented in 1998, it absorbed the \$300 Million in the WIS program. The federal government realized that another flaw of the WIS had been its insufficient size, and to address this, the federal government funneled an additional \$850 Million into the NCB Supplement. Since that time the NCB Supplement has continued to increase as it is indexed to inflation. In 2009/2010 the NCB Supplement was projected to reach \$3.7 Billion. In addition, as previously mentioned, any family that is eligible for the NCB Supplement gets the full CCTB amount. In 2009/2010 it was estimated that \$3.3 Billion from the CCTB would go to these same low-income families.

Figure 3

Federal Investments for Low-income Families from 1996 to 2010



Source: 2008 NCB Progress Report.

2008/2009 and 2009/2010 are estimates. The NCB listed in 1996/1997 and 1997/1998 is actually the WIS.

2. Related Research

With the NCB implemented only 15 years ago, and being unique to Canada, there isn't a lot of specific research related to its effects on Canadians. One of the few papers studying the NCB is, "The integration of child tax credits and welfare: Evidence from the Canadian National Child Benefit program" by Milligan and Stabile in 2007. In this paper the authors examined the effect of the NCB on social assistance by taking advantage of the natural experiment created by five provinces clawing-back the NCB Supplement.⁶ In theory, clawing-back the NCB Supplement was supposed to lower the welfare wall. The authors found that the clawing-back of the NCB Supplement did in fact succeed in lowering the welfare wall, as it increased incentive to work. They found that it was responsible for 19 to 27% of the decline in Social Assistance receipts by single mothers.

A second paper by Milligan and Stabile (2011) showed that child benefit programs have a significant positive effect on test scores, as well as several measures of child mental health and well-being. While this finding was not specific to the NCB, it is good to have empirical evidence that Canadian child benefit programs are helping the targeted children.

From a broader perspective, there is a vast amount of literature on childhood poverty and designing the right welfare mix. Due to the scope of this research review I will highlight only two papers about child poverty: one examining childhood poverty's effect on child development and a second paper analyzing childhood poverty's effect on later adulthood. The first paper by Ross and Roberts (1999) was a comprehensive Canadian study that examined 27 factors that impacted the child development process. Of these factors, 80% substantially improved once family income reached \$30,000 and 50% continued to substantially improve until family income

⁶ Since that time Nova Scotia, Ontario, Manitoba and Alberta have discontinued the practice, leaving Prince Edward Island as the only province that fully claws-back the NCB Supplement.

reached \$40,000.⁷ The authors argued that this suggested that the poverty line in Canada should be set between \$30,000 and \$40,000 for a family of four.⁸ The second paper by Duncan et al. (2010) used panel data to follow people from birth up until the age of 37. The authors found that poverty at a young age resulted in long-term negative consequences, such as adult average earnings being \$17,860 as compared to a national adult average earning of \$34,560.

In 1999 and 2003 the Canadian Policy Research Network (CPRN) published two comprehensive documents on the challenges facing Canadian families today and how to best design the welfare mix to aid these families. These reviews examined the effects of child benefit programs in other developed nations as well as evidence from Canada. The 1999 report was very supportive of the implementation of the NCB, as unlike previous Canadian programs the direct benefit transfers went to all low-income families with children regardless of their source of income, which lowers the welfare wall. The 2003 report reaffirmed their support for the NCB saying, “In adopting these policies, Canadian policy-makers have been following – and sometimes leading – international thinking about the need to provide both cash benefits and services to families in order to allow them to maximize their welfare (p.41).”

In examining the current literature a few lessons can be learned. First, childhood poverty hinders childhood development, which has long-term detrimental effects. Second, policy experts are supportive of the NCB because it recognizes the role of government in ensuring that services for all low-income families are sufficient and because it lowers disincentives to workforce participation. Third, although there are limited empirical findings on the effect of the NCB, they have shown that the NCB has contributed to labour force participation. Finally, while not specifically measuring the NCB, Canadian child benefit programs have succeeded in positively

⁷ Note these are 1999 numbers, not indexed to inflation.

⁸ In comparison the 1999 AT-LICO for a family of four living in an area with 100,000 to 499,999 inhabitants was \$23,920.

impacting child mental health, and well-being, which should limit the detrimental effects of growing up in poverty.

3. Empirical Analysis

For my empirical analysis I used the 2009 Survey of Labour and Income Dynamics (SLID). The SLID is conducted annually and its target population is all Canadians excluding: residents of Canada's three territories, people living on Indian reserves and residents of institutions. I used the census family file, because it is closest to the tax definition of a family. For 2009 there were 29,768 observations and 71 variables in the census family file.

I narrowed down my target sample significantly because I only kept census families that had both: children under the age of 18 and an after-tax income between \$0-40,000.⁹ I did this because I only wanted to examine families that were eligible for the NCB Supplement. There is a minor data issue with this target sample, as the NCB Supplement is based off of census family income from the previous calendar year. Therefore there is a possibility that the census families I selected weren't eligible for the NCB Supplement in the year 2009, as income isn't necessarily constant, and the NCB Supplement they received was based off of 2007 and 2008 tax returns. To combat this issue I then dropped all observations that did not receive any federal child benefits in 2009. There were only five of these observations, which I took to be a good sign indicating an accurate sample. This left me with a target sample of 1397 observations which I used for the following experiments.

For my empirical analysis thirteen variables from the census family file were used, however I will focus on the five key ones that were predominately used. The first was *atinc46*,

⁹ The sample was cut at \$40,000, not \$43,560 because in 2009 the upper limit was lower due to the NCB being indexed to inflation.

which is census family after-tax income. I used *atinc46* to create four income groups. The first income group had an after-tax income between \$0 to \$9999, and every successive group went up by \$10,000 increments. For Table 1 these four income groups are my independent variables.

The other four census family variables were used to create dependent variables. Their means are displayed in Table 1 and graphed in Appendix A (Figures 4, 5 and 6). The first dependent variable listed is *federal child benefits*. To calculate this I used *chfed46*, which is census family total federal child benefits. This variable presented an issue for my analysis, as it included both the NCB Supplement and CCTB. I was unable to completely isolate the NCB Supplement, however I don't think this is a major issue as every family that receives the NCB Supplement gets the full CCTB amount. Therefore in my empirical analysis I refer to total federal child benefits, instead of just the NCB Supplement. As well because I limited my sample to only census families with income equal to or below \$40,000 I am confident that all these families were receiving at least some NCB Supplement along with CCTB.

The second dependent variable presented is *federal child benefits share* (of after-tax income). This variable was created by taking the income groups' mean federal child benefits and dividing it by that income groups' mean after-tax income. The third dependent variable displayed is *two parents*. To create this variable I used *fmcomp46*, census family composition. I created a dummy variable to represent a family that was a married or common-law couple with children. A census family received a value of 1 if they were married or common-law and a value of 0 if they were not. The fourth dependent variable listed is *working*. I used *nbear46*, which is number of earners in a census family age 16 or older. I again created a dummy variable with a value of 0 if there were no workers in the family and a value of 1 if there were one or more workers in the

family. Finally the last dependent variable listed is *number of children*. I used the census family file variable *fmsz46*, which is number of census family members, to calculate it.¹⁰

The first variable mean presented in Table 1 is *federal child benefits* (per income group). The highest mean belongs to the third income group (\$5280.22) and the fourth income group also has a higher mean than the first or second income group. At first glance this does not seem right; however it is important to realize three things. First, in 2009 families received the full NCB Supplement amount until their after-tax income was around \$23,710 and then it only declined at a 12.2% rate when they have one child. This results in families in the third income group receiving most or all of the NCB Supplement. Second, there is the issue that income isn't always constant, so some of these families may have had less income in past years, as the child was younger and needed more care, so the parent worked less. These families would have received more NCB Supplement in 2009, because their 2007 or 2008 after-tax income had been lower. The third and probably biggest reason why the third and fourth income groups had higher average federal child benefits is because they had more children. Considering the CCTB doubles with a second child, and the NCB Supplement almost doubles, it makes sense that this could explain why these families are receiving more federal child benefits.

The second dependent variable listed in Table 1 is also very important. This variable shows the share of income coming from federal child benefits. Income group one received 50% of their income from federal child benefits, showing how vital these programs are to them. The share of income then declines for each successive group, which makes sense as the denominator in the equation is after-tax income.

The third dependent variable listed in Table 1 demonstrates that low-income families are much more likely than average to have only one parent. Only 41% of census families with after-

¹⁰ See Appendix A for full details on how I calculated this variable.

tax income between \$0 and \$40,000 have two parents. The percentage decreases as after-tax income decreases, as income group four has 52% with two parents, income group three has 36% with two parents, and income groups one and two both have only 24% with two parents. In comparison, 79% of all census families with children under the age of 18 have two parents. This finding makes sense, as having two parents allows for more time and freedom to earn money.

The fourth dependent variable listed in Table 1 is also important to note, as it show that 81% of these families have at least one person working. This demonstrates that the vast majority of these families are taking initiative to solve their financial woes, however they cannot alone escape from low-income. This finding ties into the CPRN paper mentioned in Section 2, where the authors praise the NCB for recognizing that government needs to play a role in supporting all low-income families.

Table 1

Dependent Variables' Means by After-Tax Income

	All Groups	\$0-9999	10,000-19,999	20,000-29,000	30,000-39,999
Observations	1397	59	260	407	671
Federal Child Benefits	4672.01 (2763.43)	3566.1 (2162.91)	4433.85 (2304.86)	5280.22 (2672.78)	4492.81 (2955.90)
Federal Child Benefits Share	0.17	0.5	0.284	0.208	0.128
Two parents	0.408	0.237	0.235	0.361	0.519
Working*	0.815	0.508	0.535	0.816	0.949
Number of Children	1.7	1.32	1.47	1.78	1.78

Source: 2009 SLID. Standard Deviations are in parentheses.

*Working is classified as having at least one earner in census family.

Up until this point I have shown that the NCB Supplement is working as it is intended to, in that more financial assistance is going to families with more children and the share of income from child benefits decreases as after-tax income increases. I have also shown that the vast majority of these families are unable to escape from low-income despite working while raising a child. It is clear that while the current federal child benefits are helpful, more still can be done.

Therefore I decided to run a second experiment where I doubled the NCB Supplement. As of July 2009 the maximum amount of federal child benefits a family with a child under the age of 18 could receive was \$3416 and for a second child \$3177.¹¹ Assuming that the CCTB base was around \$1400 a year, doubling the NCB Supplement would result in an extra \$2000 for a families' first child, and an extra \$1750 for a second child.¹² For the rare cases where there was a third child an additional \$1500 would be given, and for the fourth or fifth child \$1250 would be added, which probably is a little below the amount added if the NCB Supplement was doubled. Because I wanted to control the increase of NCB Supplement I kept the same discount rates¹³, so the NCB Supplement still expires by the time after-tax income reaches \$40,000.

Of the 1397 observations in my target sample, 503 were below their respective 2009 after-tax low-income cut-offs (AT-LICO). I used an after-tax measure because that better represents the redistribution (such as the NCB) in our tax system and because all purchases are made with after-tax income, making it a more consistent measure of income. I chose to use LICO because it is the most established and recognized low-income measure. Also it gives a better measure of poverty in an absolute sense, whereas low-income measure (LIM) is more of a relative measure, meaning it represents inequality more than absolute poverty. To simplify my

¹¹ I am using 2009 data to match the 2009 SLID data.

¹² I couldn't find the exact CCTB base for 2009. However the 2013/14 base is \$1433, so this appears to be an accurate estimate.

¹³ 12.2% for one child, 23% for two and 33.3% for three or more children.

experiment I assumed that all low-income families lived in census metropolitan areas with 100,000 to 499,999 inhabitants. This is the fourth largest out of five census areas used for AT-LICO, so I believe it is an accurate metric, as there are likely at least as many census families in one of the lower three census areas as there are in the fifth area. Since the AT-LICO increases as the number of inhabitants grows, I wanted there to be at least as many census families in the lower three census areas as the fifth area, thus preventing an overestimate of the number of families originally in poverty.

I divided my sample by family size and by number of parents, as each family size has a different AT-LICO, and single parent and two parent families that are the same size receive different amounts of NCB Supplement because it is based on number of children. I dropped the 11 observations that had a family size seven or greater because with such large families they likely had some people living in their household that were not parents, but no longer under the age of 18. Also as mentioned above, I wanted to keep the same discount rates, so for any family size of four or greater I discounted their NCB Supplement, as the NCB Supplement starts to decline before their after-tax income reaches their AT-LICO.

The results are displayed in Table 2. The key finding is that 27% of families that had originally been below AT-LICO escaped when the NCB Supplement was doubled. That is a huge discovery, and I will discuss it in the next section. Also it should be noted that only 503 observations or 36% were originally in poverty according to the AT-LICO measurement. This fact will be shown to be important in the next section and ties in with the findings by Ross and Roberts that argue many families above the AT-LICO need support so that children can have an equal opportunity.

Table 2

Census Families in Poverty Before and After the NCB Supplement is Doubled

	Observations	Originally In Low-Income	Escaped from Low-Income	% Escaped from Low-Income
1 parent, 1 child	467	160	43	26.9%
2 parents, 1 child	233	59	13	22%
1 parent, 2 children	261	87	32	36.8%
2 parents, 2 children	225	74	20	27%
1 parent, 3 children	72	36	15	41.7%
2 parents, 3 children	81	49	8	16.3%
1 parent, 4 children	22	14	1	7.1%
2 parents, 4 children	22	21	3	14.3%
1 parent, 5 children	3	3	1	33.3%
Total	1386	503	136	27%

Source: 2009 SLID. Standard Deviations are in parentheses.

Census families that are currently below their AT-LICO, but go above the cut-off when the NCB Supplement is doubled are classified as “escaped from low-income.”

4. Critical Analysis

In 1989 the Canadian federal government unanimously voted to end child poverty by the year 2000. Yet as of 2011, 8.5% of children under the age of 18 (575,000 children) continue to live in poverty.¹⁴ Doubling the NCB Supplement projects to decrease child poverty by 27% and lowers the child poverty rate to 6.2%. While it does not fulfill the federal government’s promise, it is a major step in the right direction.

¹⁴ For the record, the after-tax low-income measure (LIM) for children under the age of 18 was 14.3 in 2011.

However any decision that increases the federal government tax expenditures should be put through a vigorous examination. Two major issues emerge when considering the doubling of the NCB Supplement: how to fund the project and will it have a negative impact on labour force participation.

In 2009/2010 the NCB Supplement was estimated to cost \$3.7 Billion. Therefore to double the program today the federal government would need to find and/or raise approximately \$4 Billion. The first solution for funding the expansion is to spend some of the upcoming federal surplus on expanding the NCB Supplement, which is currently projected to occur in 2015. Considering that the federal government unanimously voted back in 1989 to eradicate child poverty it would seem that a move to expand the NCB Supplement is long overdue, and that this move should be a top priority if the government chooses to spend the surplus. Furthermore, evidence from the most recent NCB progress report shows that the NCB has succeeded in lowering childhood poverty by 15.1%¹⁵, making an investment in this program money well spent.

The second solution for funding the expansion of the NCB Supplement is to raise taxes. Bev Dahlby and Ergete Ferede (2011) estimated that the marginal cost of raising a tax dollar through federal corporate tax increases is 1.71. The authors also estimated that the marginal cost of raising a tax dollar through increases in federal personal income taxes is 1.17 and through increases in federal consumption taxes (GST) is 1.11. If we use personal income taxes as an example, these findings state that the federal government would have to raise personal income tax rates in a way that would project to increase revenue by \$4.68 Billion in order to actually raise the \$4 Billion needed to fund the doubling of the NCB Supplement.

¹⁵ The most recent NCB Progress Report found that in 2006 the number of children below AT-LICO declined from 879,100 to 746,100 due to the NCB.

It is difficult to measure the second issue: the impact of doubling the NCB Supplement on labour force participation. Measuring some of these potentialities is beyond the scope of this paper, such as trying to predict if people will decrease their work hours if the program is doubled. However I can measure the percentage of low-income families that will go from having at least one worker to zero workers if the NCB Supplement is doubled. To estimate this, I regressed *chfed46*, the census family variable for total child benefits on *working*, my dummy variable measuring if there was one or more worker(s) in the census family ($working = \beta_0 + \beta_1 chfed46 + \mu$). The coefficient on *chfed46* was -0.0000189. It had a p-value of zero, so it was very significant. This result means that if total federal child benefits increased by \$1000 then these families would be 1.89% less likely to have someone in their census family working. This is somewhat troubling, as a census family with one child and an after-tax income below \$25,356 would receive an additional \$2220.96 if the program was doubled¹⁶, and therefore would be 4.2% less likely to have anyone in their family working. Yet there are steps that can be taken to lower this percentage, such as having provinces claw-back the additional NCB Supplement, so that the extra income is only benefiting working families. A compromise like this fulfills the NCB's two main mandates, as it gives increased incentive for these low-income families to join the workforce and it further reduces childhood poverty.

After examining the two main downsides of doubling the NCB Supplement it is clear that raising and/or finding funds to finance this project is an issue, although the government has options. It also seems that there are straightforward solutions for preventing an increased disincentive to work, and if anything these solutions could increase workforce participation. This leads to the question of whether the \$4 Billion cost and the methods of funding this money are worth the benefits they will bring.

¹⁶ I switched back to using 2013/2014 numbers.

I have shown that doubling the NCB Supplement leads to a 27% decline in childhood poverty. However doubling the NCB Supplement does much more than just freeing 155,250 children from poverty. The most recent NCB progress report estimates that the NCB Supplement goes to a total of approximately 2.7 million children¹⁷, and doubling it will positively impact each one of them.

The breadth of this impact is important, since the AT-LICO (or whatever other measure is used to estimate poverty) is a somewhat arbitrary distinction, because crossing the threshold doesn't instantly change how the family lives or the opportunities the children receive. Barely being above the AT-LICO is not sufficient for child wellbeing either, as Ross and Roberts (1999) have shown that children that grew up in families with an income under \$40,000 were much more likely to have development issues.

Further evidence from Milligan and Stabile (2011) showed that child benefit payments helped improve test scores and wellbeing for low-income children, decreasing the detrimental effects of childhood poverty. Therefore if we truly want all Canadian children to have the opportunity to succeed this evidence suggests that doubling the NCB Supplement is well worth the cost.

5. Conclusion

The NCB was enacted in 1998 with lofty expectations, and vocal support from policy experts. There was improved coordination between the federal and provincial/territorial governments, creating a new national platform of child benefits that families would be allowed

¹⁷ This is the 2007/2008 estimate, I was unable to find a more up-to-date number.

to keep as they entered the workforce. This would lower the welfare wall, encouraging labour force participation and providing a sustainable solution for eradicating child poverty.

15 years later the NCB has accomplished its goals to varying degrees of success. The NCB Supplement provides a substantial share of low-income families' income. In 2010 the child poverty rate was 8.2%, the lowest point ever recorded, although how much that is due to the NCB is up for debate. Further evidence supports the NCB's impact on decreasing child poverty rates by 15.1% as of 2006. The NCB has also encouraged labour force participation, especially through the claw-back mechanism that many provinces originally used.

Yet as many provinces abandon the claw-back mechanism, and annual progress reports are published with a five year delay, it appears that the NCB has been pushed to the backburner. A program that was supposed to usher in a new, improved era of child benefits has lost its original dual mandate and become an insufficient handout to low-income families.

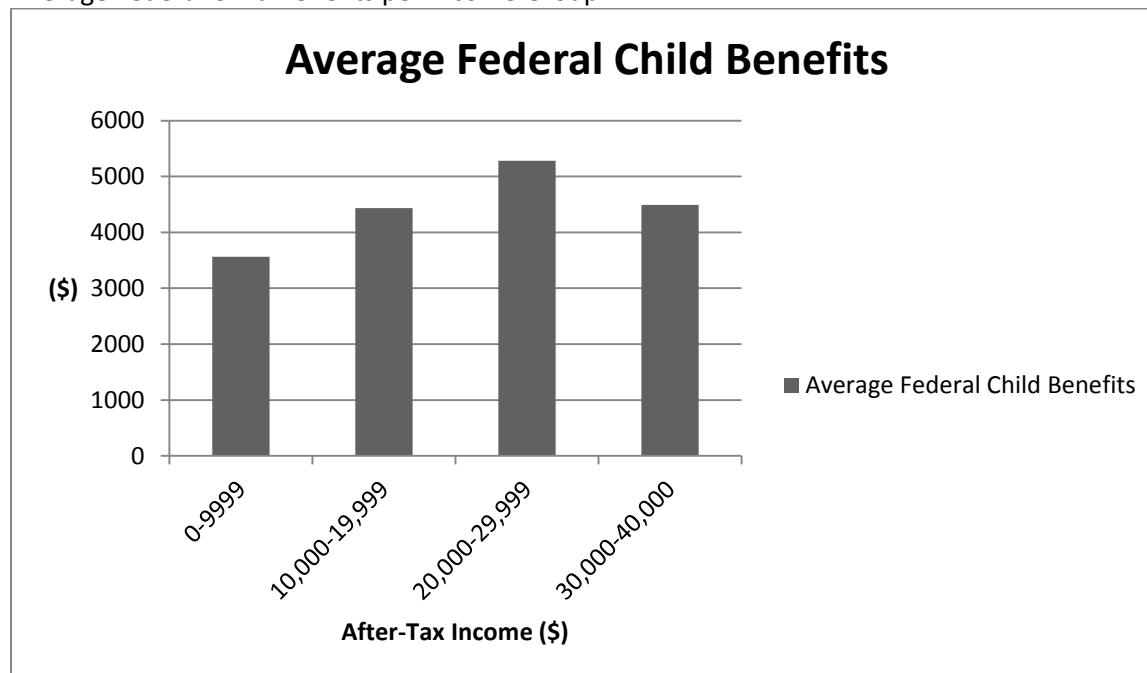
Fortunately there is a way to rejuvenate the NCB, and allow it to better fulfill its promises of preventing and decreasing the depth of childhood poverty and encouraging labour force participation. The NCB Supplement should be doubled. The federal government should also make it mandatory that provinces claw-back the increased amount from social assistance to encourage labour force participation. This would produce a double benefit to low-income working families, as they would get extra income while being in the workforce, and there would also be increased NCB Reinvestment into services by each province due to the claw-back. The cost of this is approximately 1.5% of the federal government's current expenses, and as demonstrated the federal government has several palatable options for finding the funding. If the federal government truly believes that the best way to escape poverty is through labour force participation, then implementing this plan should be a unanimous decision.

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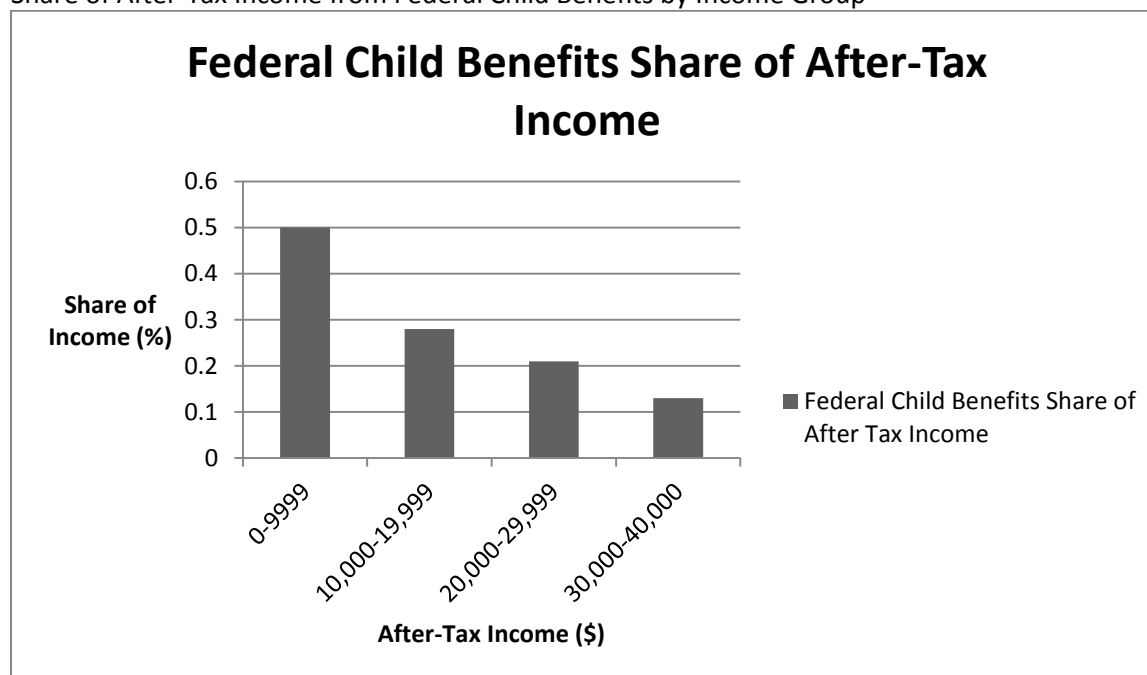
Appendix A- Figures 4, 5 and 6 and Footnote #10

Figure 4
Average Federal Child Benefits per Income Group



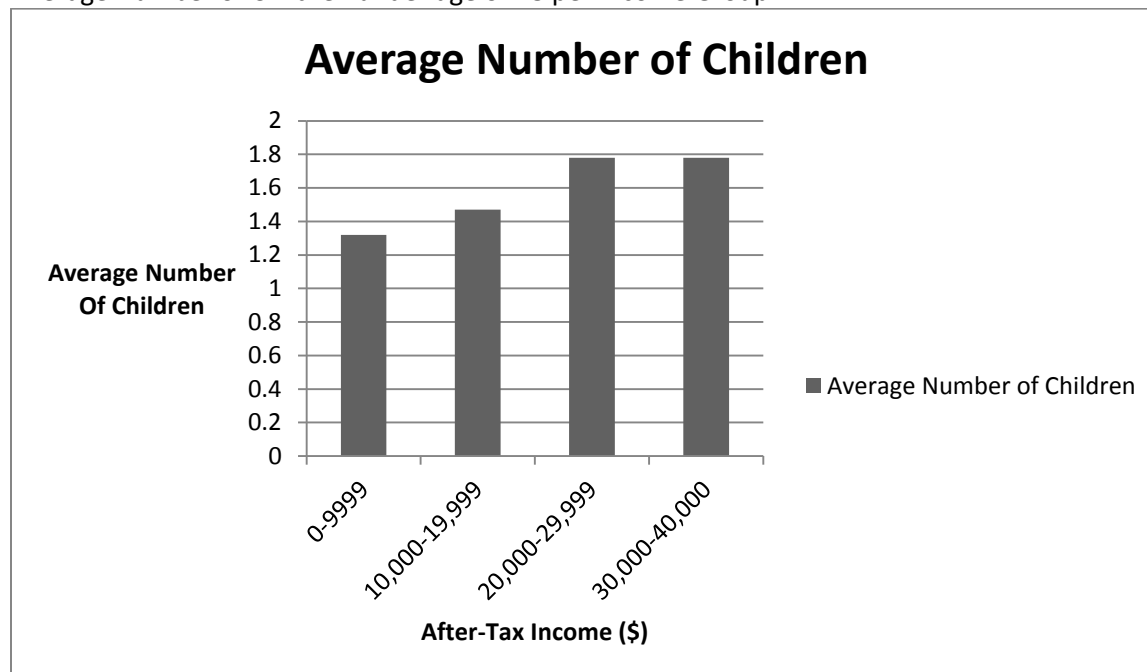
Source: SLID 2009

Figure 5
Share of After-Tax Income from Federal Child Benefits by Income Group



Source: SLID 2009

Figure 6
Average Number of Children under age of 18 per Income Group



Source: SLID 2009

See footnote 10 in Appendix A about how average number of children per income group is calculated.

Footnote 10: To calculate *average number of children* (per income group) I worked with two parent families and single parent families separately. I calculated the family size mean for both single and two parent families for each income group. I then subtracted 2 off of each two parent family mean, and I subtracted one off of each one parent family mean. Doing this assumes that each census family only had children and one or two adults. Then I used the percentage of two parent families from each income group and multiplied that by the newly subtracted family size mean of each income group of two parent families. I then repeated this exercise with single parent families. Finally I added my products from single and two parent families from each respective income group to get my answer.

This whole process was necessary because two parent families had on average more children and two parent families also made up a greater share of the higher income groups, so I couldn't weigh the number of children from single and two parent families equally.

Appendix B- Do File

```

* December 1, 2013
* NCB Stata Do File
* Alex Wind
* Econ 490 003

*** beginning commands

clear /* clears memory */
set more off /* makes long output scroll to the end */
capture log close /* closes any open log files */

use "C:\slidcf2009.dta" /* opens the data set */

keep atinc46 pvreg25 fmcomp46 fmsz46 ccar46 chfed46 chprv46 chtxb46 mbinc46 sapis46 fmsaf46 nbear46 agyfm46 /* keeps
these variable and discards all others */

gen prov = real(pvreg25) /* convert province variable to numeric form */
drop if prov<10 | prov>63 /* drop any observations with province variable out of proper range */

gen sa = real(fmsaf46) /* convert social assistance flag variable to numeric form */
replace sa = 0 if sa==2 /* turn sa into a 1 = yes, 0 = no dummy variable */

gen familycomp = real(fmcomp46) /* convert census family composition variable to numeric form */

**Getting correct sample selection. Dropping families without children or families with children with no children below the age
of 18. Dropping families with income above $40,000 (as they aren't getting NCB). Left with 1397 observations.
drop if familycomp<4 /* dropping census families without children */
drop if agyfm46>17 /* dropping if youngest person in census family is over the age of 17 */
drop if atinc<0
drop if atinc>40000
drop if chfed==0 /* dropping if recieved zero federal child benefits, which may be due to income not being constant */

* makes a new income group variable for analysis
gen incgrp = 1 if atinc>=0 & atinc<10000
replace incgrp = 2 if atinc46>=10000 & atinc46<20000
replace incgrp = 3 if atinc46>=20000 & atinc46<30000
replace incgrp = 4 if atinc46>=30000 & atinc46<=40000

* analysis of child benefits by income group
table incgrp, c(mean chtxb46 mean chfed46 mean chprv46) /* shows dollar amount of child benefits for each income group */
table incgrp, c(mean atinc46) /* used as denominator in calculating share variable */

* make new dummy variables to represent different parent situations
gen twoparents = 1 if familycomp==4
replace twoparents = 0 if familycomp<4 | familycomp>4
gen singlemom = 1 if familycomp==5
replace singlemom = 0 if familycomp<5 | familycomp>5
gen singledad = 1 if familycomp==6
replace singledad = 0 if familycomp<6 | familycomp>6

table familycomp, c(mean chtxb46 mean chfed46 mean chprv46) /* shows dollar amount of child benefits for type of family
composition */

gen worker = 0 if nbear ==0 /* make new dummy variable, if no worker in family then = 0, if there is 1 or more worker =1 */
replace worker = 1 if nbear>0

reg worker chfed /* shows there is no relationship between child benfits and working. Coefficient is: -.0000189. Show if chfed
went up $1000, the decrease in workers would be 0.019. */

```



```
reg nbear chfed /* still no relationship */
```

```
**** for table 1 means
table incgrp, c(mean twoparents)
table incgrp, c(mean worker)
table incgrp, c(mean sa)
table incgrp, c(mean agyfm)
```

```
***** Now doing critical analysis.
```

```
*** create new variable dividing atinc between those above and below lico- find percentage below (called underlico). Then
double ncb amount ($2000 more for first, etc) and see what percentage is under lico then. Remember though this is assuming you
hold income constant, as chfed is for 2009, as is atinc, however chfed 2009 is dependent on income from 2007
```

```
***First doing it with 1 child families.
```

```
drop if fmsz>3 /* only left with twoparents with 1 kid and single parents with 1 or 2 kids */
drop if familycomp==5 & fmsz==3
drop if familycomp==6 & fmsz==3
table familycomp, c(mean fmsz)
reg worker chfed
```

```
*** stop here
```

```
*** first studying singleparents with 1 child
```

```
drop if fmsz==3
gen underlico=1 if atinc<18960 /* chose 18960 because that is the LICO threshold for a 2 person family in a midsize town */
replace underlico=0 if atinc>=18960
table underlico
gen superpoor=1 if atinc<16960
replace superpoor=0 if atinc>=16960
table superpoor
```

```
*** now studying twoparent families with 1 kid
```

```
drop if fmsz==2
gen underlico2=1 if atinc<23610 /* chose 23610 because this is the LICO threshold for a 3 person family in a midsize town */
replace underlico2=0 if atinc>=23610
table underlico2
gen superpoor2=1 if atinc<21610
replace superpoor2=0 if atinc>=21610
table superpoor2
```

```
*** Now only with 2 kids
```

```
***1st studying single parents with 2 children
```

```
drop if fmsz>3
drop if fmsz==2
drop if familycomp==4
gen underlico=1 if atinc<23610
replace underlico=0 if atinc>=23610
gen superpoor3=1 if atinc<19860
replace superpoor3=0 if atinc>=19860
table superpoor3
```

```
***twoparents with 2 children
```

```
drop if fmsz>4
drop if fmsz<4
drop if familycomp==5
drop if familycomp==6
gen underlico=1 if atinc<29455
replace underlico=0 if atinc>=29455
gen superpoor3=1 if atinc<25705
```

replace superpoor3=0 if atinc>=25705 /* so 47 are still low income even with double NCB. For the other 27 between the 2 thresholds I made an equation and found that 20 escaped. So 20 of 74 are no longer low income, a 27% decline */
list atinc if superpoor3==0 & underlico==1 /* used this equation to isolate those 27 observations between the 2 thresholds */

*** Now only 3 kids

*** 1st doing single parents with 3 children

drop if fmsz>4
drop if fmsz<4
drop if familycomp==4 /* 72 observations */
gen underlico=1 if atinc<29455
replace underlico=0 if atinc>=29455 /* 36 are low income */
gen superpoor5=1 if atinc<24205 /* base ncb would be atleast \$5250 */
replace superpoor5=0 if atinc>=24205 /* so 18 are still low income even with double NCB*/
list atinc if superpoor5==0 & underlico==1 /* now examining the other 18 between the 2 thresholds. 15 escape, so there is a 41.7% decline. */

***twoparents with 3 children

drop if fmsz>5
drop if fmsz<5
drop if familycomp==5
drop if familycomp==6 /* 81 observations */
gen underlico=1 if atinc<33541
replace underlico=0 if atinc>=33541 /* 49 are low income */
gen superpoor6=1 if atinc<28291
replace superpoor6=0 if atinc>=28291 /* 31 are still low income even with double NCB*/
list atinc if superpoor6==0 & underlico==1 /* now examining the other 18 between the 2 thresholds. Only 8 escape from low income. That results in a 16.3% decline */

**** NOW 4 kids

**** single parent with 4 kids

drop if fmsz>5
drop if fmsz<5
drop if familycomp==4 /* 22 observations */
gen underlico=1 if atinc<33541
replace underlico=0 if atinc>=33541 /* 14 of 22 are low income */
gen superpoor7=1 if atinc<27041
replace superpoor7=0 if atinc>=27041 /* 13 are still low income even with double NCB */
list atinc if superpoor7==0 & underlico==1 /* 1 family between the 2 thresholds. It escapes low income. So there is a 7.1% decline */

**** twoparents with 4 children

drop if fmsz>6
drop if fmsz<6
drop if familycomp==5
drop if familycomp==6 /* 22 observations */
gen underlico=1 if atinc<37198
replace underlico=0 if atinc>=37198 /* 21 are low income */
gen superpoor7=1 if atinc<30698
replace superpoor7=0 if atinc>=30698 /* 13 are still low income even with double NCB */
list atinc if superpoor7==0 & underlico==1 /* 8 families between the 2 thresholds. 3 escape, so there is a 14.3% decline */

**** one parent with 5 kids

drop if fmsz>6
drop if fmsz<6
drop if familycomp==4 /* 3 observations */
gen underlico=1 if atinc<37198
replace underlico=0 if atinc>=37198 /* all 3 are low income */
gen superpoor7=1 if atinc<29448
replace superpoor7=0 if atinc>=29448 /* 1 is still low income even with double NCB */
list atinc if superpoor7==0 & underlico==1 /* 2 families between the 2 thresholds. 1 escapes, so there is a 33.3% decline */

