Intergenerational Monetary Support:

for The Elderly vs. for Children

by

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Abstract

This paper empirically examines how monetary support for the elderly responds to an increase in the number of children in China’s three-generational families across families and across time. This paper reduces the endogeneity in childbearing choices by using the external shock provided by Only-Child Policy relaxation in China. The results first show a positive correlation between the number of children and monetary support for the elderly but do not draw the causal relationship due to the endogeneity. With reduced endogeneity, 2SLS results show that having a second child in the family leads to a significant decrease in the monetary support for the elderly, ceteris paribus. The results imply the tradeoff between monetary support for the elderly and investment for increased children. The elderly passively invests in their grandchildren by receiving less monetary support and contributes to resolving the quantity-quality tradeoff issue of the child generation.

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1. Introduction

From the intergenerational perspective, the monetary support within multi-generational families spans across generations and serves as a factor of cross-generational utility maximization (Becker &Lewis, 1976). The limited total amount of resources in the family presents the dilemma of monetary support for the elderly and for children. On one hand, there is monetary support for the elderly as a gesture of kindness or even a need if the elderly do not have sufficient funds to live on. On the other hand, there is monetary support for children as a parental investment. Parental investment, whether monetary or non-monetary, is crucial to children’s cognitive and non-cognitive skill development (Francesconi &Heckman, 2016). Within the child generation, there is also the quantity-quality tradeoff where the sources that can be allocated to each child are limited especially when there are multiple children in the family (Becker &Tomes, 1973).

The dilemma is relevant to China context. First, monetary transfer for the elderly is common in Chinese households. With the piety culture, children take on a filial duty to support the elderly and this trend sustains even in the face of modernization (Cheung & Kwan, 2009). With incomplete welfare systems, there is also absence of old-age social security programs, especially in rural China. According to previous research, 67.5 percent of China’s rural elderly people have no labor income and 91 percent of the rural elderly live on transfers from their children (Huang &Zhang, 2016). Second, the level of private investment in China is high. Households’ out-of-school-expenditure for children’s education investment is high and increases rapidly from 2007 to 2011 (Chi &Qian, 2016). Families with lower income level spend even a higher proportion of their income on children’s education investment (Chi &Qian, 2016). Third, Chinese families now face more variation in the number of children after family planning policy changes post Only-Child Policy. There arise more concerns for quantity-quality tradeoff and the policy impact may translate into multiple generations.

This paper looks at monetary transfers within three-generation families in China and examines how monetary support for the elderly responds to child number increases. It uses the 2011 and 2015 waves of data from China Health and Retirement Longitudinal Study. It identifies variation in the number of children through an exogenous shock on family size and constructs IV as intent to treat of Only-Child Policy Relaxation.

This paper finds that monetary support for the elderly positively correlates with the number of children in the family. With reduced endogeneity in childbearing choices, the 2SLS results show having a second child in the family leads to a significant decrease in the monetary transfer to the elderly ceteris paribus. The results imply the tradeoff between monetary support for the elderly and for children. Grandparents passively invest in increased children in the family by receiving less monetary support. The quantity-quality tradeoff of the child generation issue translates into multiple generations in Chinese multi-generational families.

This paper tests the theoretical framework of intergenerational family utility maximization in the setting of three-generation families and explores the interaction between monetary support and factors across generations. This paper also contributes to growing studies on China’s family planning policies and their economic implications.

This paper follows the structure 1) Introduction, 2) Background on China’s Family Planning Policies, 3) Data, 4) Methodology and Results, 5) Discussion, and 6) Conclusion. Reference is attached in the end.

1. Background on China’s Family Planning Policy
* OCP

Since 1978, China adopted Only-Child Policy (OCP) with strict enforcement. This family planning policy constraints the number of children in Chinese families and significantly impacts Chinese family sizes. The fertility rate (births per woman) decreases from 2.94 as of 1978 to 1.63 as of 2011 in China (World Bank, 2017). OCP together with longer life expectancy leads to an aging society and the sandwich generation faces the pressure to support both the elderly and children (Zhang &Goza, 2006).

OCP also has intensity differences between rural and urban areas. With enforcement concerns, since 1984, Chinese government began to allow rural households to have a second child if they had a female child as their first child (Scharping, 2016). Whereas, the urban households are strictly constrained to having only one child.

* OCP Relaxation

In order to improve the total fertility rate and combat the aging society issue, China begins to improve Only-Child Policy (Zeng et al., 2017). Rounds of Only-Child Policy relaxations come after 2011. From 2011 to 2015, selective two-child policies were enforced. The 2011 wave of OCP relaxation required both parents to be only child of their own family. The 2013 wave of OCP relaxation required either parent to be only child of his/her family. Since October 2015, China put an end to the Only-Child Policy and replaced it with the universal two-child policy. The two-child policy is expected to result in a baby boom, but rather a moderate increase in fertility (Zeng & Hesketh, 2016).

OCP relaxation is an exogenous policy shock on China’s family size. For this study, OCP relaxation with a baby boom provides exogeneity for the number of children in families. It enables this paper to examine the effect of increased children on the monetary support for the elderly from an intergenerational perspective. The results are also relevant in the face of long-term change of family size in China post OCP.

1. Data
* Data Source

This paper uses China Health and Retirement Longitudinal Study (CHARLS) data. CHARLS samples Chinese residents aged 45 and older nationwide and collects the respondents’ and respondents’ household information. Information includes models such as demographics, family monetary transfer, health care, and insurance, work, retirement and pension, income and consumption, etc. The survey starts its national baseline wave in 2011 and follows up every two years. It has now published 2011, 2013, and 2015 waves of nationwide data.

* Data Construction

This paper uses the 2011 and 2015 waves of CHARLS data. The observations in my datasets are the sandwich generation. They are respondents’ children if respondents have children aged between 18 and 45. Children refer to my observations’ children. Grandparent or the elderly refers to the survey respondents who are aged over 45. Monetary support for the elderly refers to the monetary support from my observations to grandparents.

Table 1 summarizes variable definitions. The key independent variables in my dataset include Number of Children, OnlyChild, and HukouRural. Number of Children is the number of observations’ children. OnlyChild indicates whether observations are as only child of their family. HukouRural indicates whether observations register as rural residents. There are also interaction terms OnlyChild\*year2015, HukouRural\*Number of Children constructed from these variables. Other control variables include Number of Parents, income, education, Parent HukouRural, etc. The key dependent variable is NetGiveAmount, the net observation-to-the-elderly yearly monetary transfer. To map directions of transfers and take zero NetGiveAmount into consideration, binary variables Give and Receive are constructed. Give takes values 1 if NetGiveAmount is strictly greater than zero. Receive takes value 1 if NetGiveAmount is strictly smaller than zero.

For analytic purposes, I construct three datasets 1) baseline: unbalanced panel, 2) balanced panel sample 3) sample for having a second child. The baseline sample contains all observations from 2011 and 2015 waves data if with valid data. I further construct a balanced panel dataset and selects only observations with valid both 2011 and 2015 records. I also create a subsample of the balanced panel dataset and restrict observations to those who have exactly one child in 2011.

* Descriptive Statistics

Table 2 reports summary statistics for the baseline unbalanced panel sample. There are 28,091 observations in the baseline sample. Table 3 reports summary statistics for the balanced panel sample. The balanced panel sample has 17,764 observations. Table 4 reports summary statistics for the subsample for having a second child. The subsample includes 6690 observations. Among all three samples, male observations compared to female, rural compared to urban observations take a larger proportion of total observations. This aligns with China’s sex ratio and urban/rural division.

The common phenomenon of monetary support for the elderly is seen in the samples. In the baseline sample, 29.9% of observations makes positive transfer to grandparents, whereas only 7.3% of observations receive monetary support from the elderly. All three samples report positive mean for NetGiveAmount. Mean NetGiveAmount is 2,473 RMB for the baseline sample, 307.4 RMB for the balanced panel sample and 454.1 RMB for the subsample for having a second child. Mean Number of Children is 1.206 for baseline, 1.309 for balance sample, and 1.119 for the subsample for having a second child. This corresponds with China’s family planning policies where only {0,1} or {0,1,2} is the constraint feasible set of the number of children for Chinese families. The standard deviation in the number of children in the sample for having a second child is 0.355 and it is lower than 0.888 in the baseline sample, and 0.925 in the balanced panel sample. This fits with China’s OCP relaxation where only families meeting certain criteria are possible to have a second child before 2015. With respect to the observations’ only child status, 8.13% in the baseline sample, 6.62% in the balanced panel sample, and 6.07% in the sample for having a second child are as only child in their own family.

1. Methodology and Results
* Baseline: Unbalanced Panel

The baseline on the unbalanced panel sample is to look at intergenerational monetary support across families. The baseline first maps the directions of intergenerational monetary transfers with Linear Probability model. It regresses binary dependent variable Give or Receive on independent variables of households’ characteristics. Logit and Probit models are used to check the consistency of results. I use the following Linear Probability model:

$Give\_{it}/Receive\_{it}=β\_{0}+β\_{1}Number of Children\_{it}+β\_{2}HukouRural\_{t}++β\_{3}Number of Children\*HukouRural\_{it}+γV\_{it}+γI\_{it}+αYear\_{t}+δCommunity\_{i}+u\_{it}$

The baseline also looks at the magnitude of intergenerational monetary support with OLS model. It regresses NetGiveAmount on independent variables of households’ characteristics. I use the following OLS model:

$NetGiveAmount\_{it}=β\_{0}+β\_{1}Number of Children\_{it}+β\_{2}HukouRural\_{t}+β\_{3}Number of Children\*HukouRural\_{it}+γV\_{it}+γI\_{it}+αYear\_{t}+δCommunity\_{i}+u\_{it}$

In the above models, Number of Children is the variable of interest. Considering the intensity differences of OCP between urban and rural households, HukouRural and its interaction term with Number of Children is also included. Vs represent time-variant variables, including income, Number of Parents. Is represent time-invariant variables, including only child status, education, male, etc. Community dummies are added for control. Community dummies are created based on the community code. Community code records residential blocks (jiedao) for urban areas and villages for rural areas. Year dummy is also added to control for macro-trend.

As shown in Table 5, if observations are female, older, not as only child of their own family, earning, higher income, having less and older parents, having parents with rural hukou, these observations are more likely to make a money transfer to the elderly instead of the other way around. The results from linear probability model, probit and logit models show a consistent result regarding the signs of relevant coefficients. Table 5 also shows the results for magnitude of monetary support. The coefficient is reported 29,109 for Number of Children and -26,688 for Number of Children\*Rural, both significant at 1% level. The results show a positive correlation between Number of Children and NetGiveAmount for both rural and urban households. If among rural households, a family with one more child makes 2421 RMB more monetary support for the elderly. If among urban households, a family with one more child makes 29,109 RMB more monetary support for the elderly. This positive correlation cannot draw the causal relationship between the number of children and monetary support for the elderly due to endogeneity in the number of children. Childbearing is concerned with multiple factors. The alternative story is that wealthier families tend to have more children and also tend to make more monetary support for the elderly because of their wealth.

* Balanced Panel with FE

This paper also looks at intergenerational monetary support within a family across time. On the balanced panel sample, only time-invariant variables are involved. Individual household fixed effect is introduced for unit-level control. I use the following regression strategy:

$$NetGiveAmount\_{it}=β\_{0}+β\_{1}Number of Children\_{it} + β\_{2}Number of Parent\_{it} +β\_{3}Income\_{it}+ β\_{4}Household FE\_{i}+U\_{it}$$

As shown in Table 6, the coefficient of Number of Children is reported positive as 538.6 but not significant at 15% level. An increase in the number of children does not significantly affect the monetary support for the elderly. Due to the endogeneity in Number of Children, the alternative story is that families get richer and then decide to have more children with their increased wealth and make a larger or equivalent level of monetary support for the elderly.

* IV: Having A Second

To reduce endogeneity in the number of children and examine how monetary support for the elderly responds to increased children across time, this paper adopts 2SLS method with an instrumental variable on the sample for having a second child. This method specifically looks at the effect of a second child on monetary support for the elderly. The sample restricts observations with exactly one child in 2011. The IV is constructed as year2015 × OnlyChild, which is intent to treat of OCP relaxation.

The choice of sample and IV takes both eligibility and effect of OCP into consideration. The reasoning is that only observations with one child in 2011 face the issue of to whether have a second child and may be affected by OCP relaxation. Moreover, only observations who are as only child of their family are subject to OCP relaxation as the policy requires both parents/either parent to be only child. The 2015 data mostly captures the 2011 round of OCP relaxation impact considering time for family planning and pregnancy, but it is possible to capture some impact of the 2013 round of OCP relaxation. Either way, only parents who are only child are relevant to the OCP relaxation and they are more likely to have a second child with this exogenous policy shock. In addition, OCP relaxation came in after 2011, and the second child choice after the policy can only affect the number of children in 2015 not in 2011.

The model follows the previous panel model with household fixed effect but adopts the 2SLS method. The first stage is as below:

$$\hat{NumChildren}\_{it}=β\_{0}+β\_{1}Year2015\*OnlyChild\_{it} + β\_{2}Number of Parent\_{it} + β\_{3}Income\_{it}+ β\_{4}Household FE\_{i}$$

Table 7 reports the first stage results that the coefficient of IV is 0.153, significant at 1% level. This suggests that observations subject to OCP relaxation are more likely to have a second child from 2011 to 2015. These observations have 0.153 more children compared to those who are not subject to OCP relaxation. Observations with a higher income level and fewer parents present also are more likely to have a second child.

In addition, Table 7 reports the statistics for weak identification test. The Cragg-Donald Wald F statistic reported is 12.76 and it is greater than Stock-Yogo weak ID 15% maximal IV size critical value 8.96. Therefore, I argue year2015 × OnlyChild is not a weak instrument for Number of Children.

The effect of having a second is of greater magnitude and greater significance child compared to generally have one or one more child. The OLS coefficient of Number of Children in Table 7 is 694.5, significant at 5% level, whereas the coefficient from the balanced panel results reported in Table 6 is 538.6, not significant at 15% level. It suggests a stronger positive correlation between the number of children and the monetary support for the elderly in the narrowed context of having a second child.

The 2SLS result implies the tradeoff between investment for increased children and the monetary support for the elderly. Table 7 reports the 2SLS coefficient of Number of Children is -22,024.9 significant at 1% level, and 694.5 for OLS, not significant at 5% level. The coefficient from 2SLS takes a different sign from positive to negative. It suggests that having a second child in the family leads to a decrease of 22,024.9 RMB in the monetary support for the elderly from 2011 to 2015, holding all other factors constant. The results present the dilemma between monetary support for the elderly versus for the children (especially increased children).

1. Discussion
* On findings

The baseline results show that female observations are more likely to make monetary support for the elderly. This finding is consistent with the previous research that married daughters provide more financial support to parents than married sons even with the patrilineal social norms present in China (Xie &Zhu, 2009).

Due to intensity differences of OCP, the coefficients of Number of Children, HukouRural, and HukouRural\*Number of Children from the baseline result are all of significance in explaining the heterogeneity in monetary support for the elderly. This paper focuses on how monetary support for the elderly changes across time within families and uses a panel model with fixed effect. There may also be hukou status change for individual observations. Considering the relatively short 4-year time span, this study treats rural/urban hukou status as a time-invariant factor within a family. The rural/urban division among families is also not specifically explored in this study. A possible approach to explore the urban/rural difference is to consider the different impacts of OCP relaxation on rural and urban households and use the DID model to examine the impact differences.

Across both households and time, monetary transfer for the elderly positively correlates with the number of children. To control for the macro trend, the year dummy is introduced in the baseline. In panel models, incomes as an important time-varying factor is also included. However, this positive correlation should not be interpreted as a causal relationship from an increasing number of children to an increasing amount of monetary support for the elderly. The endogeneity in the number of children should be specifically addressed. This paper addresses it through the exogeneity provided by OCP relaxation policy shock. The impact of OCP relaxation shock is limited to the family size change from 1 to 2, where changes from 0 to 1 and from 2 to many are not covered. The second child issue is of special interest for Chinese households since the policy only newly opens the door for a second child.

The 2SLS results show that the elderly receive less monetary support to respond to a child number increase in the family. This implies the tradeoff between monetary support for the elderly and investment for increased children. OCP relaxation with families having more children intensifies the resource allocation problem across generations. Especially for the sandwich generation, they take the responsibility to support the elderly, existing children, and now increased children.

We may view that grandparents passively invest in their grandchildren to resolve the quantity-quality tradeoff. However, the dilemma between the monetary support for the elderly versus for children still exists. It should be noted that it is a passive form of investment in the children where the elderly themselves need support and services in China’s aging society. Therefore, increasing children in the family may bring pressure for the sandwich generation to support the elderly with money and further influence the life quality of the elderly, especially if the family is not wealthy and is not getting wealthier.

 The impact of a second child and OCP relaxation on the human capital of children’s generation is also worth exploring. In previous research, Wang and Zhang estimate that offsetting quantity-quality tradeoff, due to different intensities of OCP on rural and urban population, the OCP has reduced human capital level of China’s next generation by 1 to 2 percent (Zhang & Wang, 2018). In the face of OCP relaxation, the findings show that the resources available to each child in a family does not fall proportionally as the number of children increases. The baby boom occurs more in urban families that are more financially able, and these families may mange to sustain investment for children on average. The elderly also passively invest in the child generation by receiving less monetary support. The average human capital level of the child generation may sustain or even increase. In terms of intergenerational inequalities, with both diminishing family size differences between urban and rural households, and tradeoff of monetary support across generations, it is unsure whether the intergenerational inequality will increase or decrease.

* On Data Limitations

This study only includes monetary support across generations. The monetary support is the value of regular and non-regular, monetary and in-kind support within families. It does not include property transfer such as land and housing. However, such transfers are generally on-time transfers and are of small size among total observations. It also does not include non-monetary support. Non-monetary support can take forms such as parenting spending with their children and the elderly spending time to help take care of children. Ko and Hank finds that 58% Chinese elderly report to provide some care for their elderly and grandparents receiving financial support tend to be more likely to spend time taking care of grandchildren in China (Ko &Hank, 2014). These forms of support although are of meaning but are often hard to quantity. This study introduces household fixed effects for unit control. Some of the factors can be absorbed as this study specifically looks at monetary support change within families across time.

This study uses the 2011 and 2015 waves of CHARLS data. The two waves correspond with the timing of OCP relaxation policies. The data mostly captures the 2011 round of OCP relaxation and some of the 2013 round. It is not feasible to examine the effect of the universal two-child policy after 2015 with the data. The latest national CHARLS wave published is 2015. The publication of the 2017 wave is delayed and there is only the wave for two provinces.

The data contain more information on the elderly’s and observations’ characteristics since CHARLS survey respondents are designed as the elderly. The detailed information of the child generation is limited. This design allows a look at monetary transfer across three generations but limits the possibility to look at the factors interplaying within the children’s generation. For example, the previous research also finds that a second child in rural areas increases education enrollment with decreasing marginal cost for children’s education (Wang &Zhang, 2018).

* On Methodology

The baseline includes a year dummy and community dummies to examine monetary support for the elderly across households. The study uses panel models with fixed effects. Instrumental variable is also introduced to reduce endogeneity. In coding and regression, rehdfe, ivreghdfe commands are used to add fixed effects and realize 2SLS regression (Sergio, 2017).

The constructed IV is a time-variant factor. It is the effect of OCP relaxation on whether there is a second child in families. It is used to reduce the endogeneity in Number of Children. Although I argue it is not a weak instrument, the effect of OCP relaxation on family size is a topic of interest itself with multiple factors to consider.

1. Conclusion

In conclusion, this paper finds a positive correlation between the number of children and monetary support for the elderly across households and across time. The OCP relaxation serves as an exogenous shock to examine the effect of child number increase (specifically a second child) on monetary support for the elderly. The result suggests that the elderly receive less monetary support with an increased child in the family thus passively invest in their grandchildren to resolve the quantity-quality tradeoff. This effort shall contribute to sustaining the human capital level of children’s generation but the cost for the elderly should not be neglected. Its further impacts on the next generation’s average human capital level and intergenerational inequalities are to be examined.

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Tables:

Table 1: Variable Code Book

|  |  |  |
| --- | --- | --- |
| Variable Name | Type | Description |
|  |  |  |
| NetGiveAmount | Continuous  | Yearly net monetary observation-to-the-elderly transfer, in RMB |
| Give | Binary | Equal to 1, if NetGiveAmount>0 |
| Receive | Binary | Equal to 1, if NetGiveAmount<0 |
| Number of Children | Integer | Number of children that the observation has |
| HukouRural | Binary | Equal to 1, if the observation is registered with rural hukou |
| HukouRural\*Number of Children | Integer | Interaction term of HukouRural and Number of Children |
| OnlyChild | Binary | Equal to 1, if the observation is of only child of the generation |
| Year Dummy: year2015 | Binary | Equal to 1, if it is of year 2015 |
| IV: year2015\*OnlyChild | Integer | Interaction term of year2015 and OnlyChild |
| OneChild2011 | Binary | Equal to 1, if the observation has exactly one child as of 2011 |
| male | Binary | Equal to 1, if the observation is male |
| age | Integer | Age of an observation, 18-45 in the sample |
| education | Basket | Education level coded from 1(No formal education) to 11(Graduate from Post-graduate, Doctoral degree/PhD) |
| income | Basket | Income level of the observation and his/her spouse coded from to 1 (None) to 11 (Above 300,000 RMB) |
| married | Binary | Equal to 1, if the observation is married |
| Number of Siblings | Integer | Number of siblings that the observation has |
| Number of Parents | Integer | Number of parents the observation has, 1-2 in the sample |
| Average Parent Age | Integer | Parent’s age if with one parent, Average of parents’ ages if with both parents |
| Parent HukouRural | Binary | Equal to 1, if no parent is registered with urban hukou |
| Parent Insurance | Binary | Equal to 1, if no parent has no insurance, different from pension |
| year | Integer | Year of the observation, 2011 or 2015 in the sample |
| Community Dummies | Binary | Community is China’s 5th administrative division, villages if in rural arear, blocks of residential complex(jiedao) if in urban areas. Community Dummies are created based on community code available in the dataset. |

Table 2: Baseline Descriptive Statistics

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| VARIABLES | N | mean | Sd | min | max |
|   |   |   |   |   |   |
| NetGiveAmount | 28,091 | 2,473 | 417,944 | -800,000 | 70010000 |
| Give | 28,091 | 0.299 | 0.458 | 0 | 1 |
| Receive | 28,091 | 0.073 | 0.261 | 0 | 1 |
| Number of Children | 28,091 | 1.206 | 0.888 | 0 | 8 |
| HukouRural\*Number of Children | 28,091 | 1.008 | 0.972 | 0 | 8 |
| HukouRural | 28,091 | 0.774 | 0.418 | 0 | 1 |
| age | 28,091 | 33.02 | 6.452 | 20 | 44 |
| education | 28,091 | 5.065 | 1.982 | 1 | 11 |
| income | 28,091 | 5.302 | 1.874 | 1 | 12 |
| Number of Siblings | 28,091 | 2.259 | 1.532 | 0 | 11 |
| OnlyChild | 28,091 | 0.081 | 0.273 | 0 | 1 |
| married | 28,091 | 0.803 | 0.398 | 0 | 1 |
| Number of Parents | 28,091 | 1.786 | 0.410 | 1 | 2 |
| Average Parent Age | 28,091 | 60.61 | 8.074 | 45 | 93 |
| Parent Insurance | 28,091 | 0.907 | 0.291 | 0 | 1 |
| Parent HukouRural | 28,091 | 0.797 | 0.402 | 0 | 1 |
| male | 28,091 | 0.539 | 0.498 | 0 | 1 |
|  |  |  |  |  |  |

Table 3: Balanced Panel Descriptive Statistics

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| VARIABLES | N | mean | sd | Min | max |
|   |  |  |  |  |  |
| NetGiveAmount | 17,764 | 307.4 | 13,578 | -800,000 | 600,000 |
| Number of Children | 17,764 | 1.309 | 0.925 | 0 | 6 |
| year | 17,764 | 2,013 | 2.000 | 2,011 | 2,015 |
| age | 17,764 | 36.48 | 9.910 | 14 | 89 |
| income | 17,764 | 5.235 | 1.988 | 1 | 12 |
| OnlyChild | 17,764 | 0.066 | 0.249 | 0 | 1 |
| HukouRural | 17,764 | 0.773 | 0.419 | 0 | 1 |
| Number of Parents | 17,764 | 1.701 | 0.458 | 1 | 2 |
| OneChild2011 | 17,764 | 0.381 | 0.486 | 0 | 1 |
| male | 17,764 | 0.567 | 0.496 | 0 | 1 |
|   |  |  |  |  |  |

Table 4: Having A Second Child Sample Descriptive Statistics

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| VARIABLES | N | mean | sd | min | max |
|  |  |  |  |  |  |
| NetGiveAmount | 6,690 | 454.1 | 6,456 | -200,000 | 110,000 |
| Number of Children | 6,690 | 1.119 | 0.355 | 1 | 5 |
| OnlyChild | 6,690 | 0.061 | 0.239 | 0 | 1 |
| year2015 | 6,690 | 0.500 | 0.500 | 0 | 1 |
| Year2015\*Number of Children | 6,690 | 0.022 | 0.147 | 0 | 1 |
| age | 6,690 | 37.07 | 8.402 | 18 | 87 |
| Income | 6,690 | 5.748 | 1.726 | 1 | 12 |
| HukouRural | 6,690 | 0.667 | 0.471 | 0 | 1 |
| Number of Parents | 6,690 | 1.726 | 0.446 | 1 | 2 |
| OneChild2011 | 6,690 | 1 | 0 | 1 | 1 |
| Male | 6,690 | 0.540 | 0.498 | 0 | 1 |
|   |   |   |   |   |   |

Table 5: Baseline Results

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|  | Linear Prob | Logit | Probit | Linear Prob | Logit | Probit | OLS |
| Dep.Var | Give | Give | Give | Receive | Receive | Receive | NetGiveAmount  |
|  |  |  |  |  |  |  |  |
| Number of children | -0.006 | 0.075 | 0.050 | 0.014\*\* | 0.178\* | 0.093\* | 29,109\*\* |
|  | (0.007) | (0.057) | (0.033) | (0.005) | (0.074) | (0.042) | (8,752) |
| HukouRural\*Number of Children | 0.007 | -0.043 | -0.033 | -0.010\* | -0.207\*\* | -0.105\* | -26,688\*\* |
|  | (0.007) | (0.058) | (0.033) | (0.005) | (0.074) | (0.042) | (8,625) |
| HukouRural | -0.011 | 0.155 | 0.088 | 0.009 | 0.141 | 0.065 | 23,984 |
|  | (0.011) | (0.085) | (0.049) | (0.007) | (0.110) | (0.062) | (12,816) |
| male | -0.072\*\* | -0.563\*\* | -0.321\*\* | 0.026\*\* | 0.512\*\* | 0.279\*\* | 2,119 |
|  | (0.004) | (0.035) | (0.020) | (0.003) | (0.054) | (0.029) | (5,186) |
| age | 0.002\*\* | 0.019\*\* | 0.011\*\* | -0.002\*\* | -0.031\*\* | -0.015\*\* | -832 |
|  | (0.001) | (0.005) | (0.003) | (0.000) | (0.008) | (0.004) | (708) |
| married | 0.012 | 0.107 | 0.076\* | -0.011\* | -0.078 | -0.043 | -9,028 |
|  | (0.007) | (0.057) | (0.033) | (0.005) | (0.080) | (0.044) | (8,439) |
| OnlyChild | -0.035\*\* | -0.516\*\* | -0.288\*\* | 0.039\*\* | 0.388\*\* | 0.242\*\* | -1,931 |
|  | (0.009) | (0.077) | (0.044) | (0.006) | (0.093) | (0.052) | (10,707) |
| Number of Siblings | 0.002 | 0.027 | 0.016\* | -0.007\*\* | -0.196\*\* | -0.099\*\* | -671 |
|  | (0.002) | (0.014) | (0.008) | (0.001) | (0.026) | (0.013) | (2,338) |
| education | -0.000 | -0.003 | -0.002 | 0.005\*\* | 0.089\*\* | 0.046\*\* | 3,989\* |
|  | (0.001) | (0.011) | (0.006) | (0.001) | (0.016) | (0.009) | (1,734) |
| income | 0.035\*\* | 0.235\*\* | 0.138\*\* | -0.021\*\* | -0.247\*\* | -0.131\*\* | 4,509\*\* |
|  | (0.001) | (0.010) | (0.006) | (0.001) | (0.013) | (0.007) | (1,598) |
| Number of Parents | -0.014\* | -0.084\* | -0.036 | 0.011\*\* | 0.268\*\* | 0.149\*\* | 2,539 |
|  | (0.006) | (0.043) | (0.024) | (0.004) | (0.071) | (0.038) | (6,617) |
| Average Parent Age | 0.002\*\* | 0.019\*\* | 0.010\*\* | -0.001 | -0.017\*\* | -0.011\*\* | 1,287\* |
|  | (0.000) | (0.004) | (0.002) | (0.000) | (0.006) | (0.003) | (580) |
| Parent Insurance | 0.021\*\* | 0.231\*\* | 0.138\*\* | 0.008 | 0.002 | -0.005 | 3,676 |
|  | (0.008) | (0.056) | (0.033) | (0.005) | (0.081) | (0.044) | (9,036) |
| Parent HukouRural | 0.056\*\* | 0.619\*\* | 0.355\*\* | -0.062\*\* | -0.874\*\* | -0.485\*\* | -20,479\* |
|  | (0.008) | (0.057) | (0.033) | (0.006) | (0.078) | (0.043) | (10,091) |
| Year Dummy: year2015 | -0.513\*\* | -3.286\*\* | -1.861\*\* | -0.180\*\* | -5.541\*\* | -2.416\*\* | 1,888 |
|  | (0.004) | (0.043) | (0.022) | (0.003) | (0.239) | (0.079) | (5,332) |
| Community Dummies | YES | NO | NO | YES | NO | NO | YES |
|  |  |  |  |  |  |  |  |
| Constant | 0.183\*\* | -3.194\*\* | -1.861\*\* | 0.390\*\* | 1.401\*\* | 0.743\*\* | -103,739\*\* |
|  |  |  |  |  |  |  |  |
| Observations | 28,091 | 28,091 | 28,091 | 28,091 | 28,091 | 28,091 | 28,091 |
| R-squared | 0.421 |  |  | 0.172 |  |  | 0.121 |
|  |  |  |  |  |  |  |  |

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.

Table 6: Balanced Panel Results

|  |  |  |
| --- | --- | --- |
|  | (1) | (2) |
| Dep.Var | NetGiveAmount |
|  |  |  |
| Number of Children | 514.1 | 538.6 |
|  | (350.9) | (358.2) |
| Number of Parents |  | -1,264.8\* |
|  |  | (622.2) |
| income |  | -56.0 |
|  |  | (88.9) |
| Constant | -365.4 | 2,046.8 |
|  |  |  |
| Observations | 17,764 | 17,764 |
| R-squared | 0.501 | 0.501 |

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 7: Having A Second Child Results

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) |
|  | OLS | OLS | 2SLS | 1st Stage |
| Dep.Var | NetGiveAmount | NetGiveAmount | NetGiveAmount | Number of Children |
|  |  |  |  |  |
| Number of Children | 914.2\*\* | 694.5\* | -22,024.9\*\* |  |
|  | (295.1) | (302.1) | (8,036.6) |  |
| Year2015\*OnlyChild |  |  |  | 0.153\*\* |
|  |  |  |  | (0.043) |
| Number of Parents |  | -1,059.4\* | -3,159.5\*\* | -0.090\*\* |
|  |  | (488.7) | (1,092.0) | (0.028) |
| income |  | 206.2\*\* | 1,418.4\*\* | 0.051\*\* |
|  |  | (76.2) | (445.8) | (0.004) |
| Household FE | Yes | Yes | Yes | Yes |
|  |  |  |  |  |
| Constant | -568.8 | 320.5 |  | 0.976\*\* |
|  |  |  |  |  |
| Observations | 6690 | 6,690 | 6,690 | 6,690 |
| R-squared | 0.509 | 0.511 | -1.674 | 0.473 |
|  |  |  |  |  |
| Cragg-Donald Wald F statistic |  |  | 12.76(15% maximal IV size value: 8.96) |

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1