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RESEARCH BRIEF

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The SEED for Oklahoma Kids Experiment: Comparison of Treatment and Control Groups

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The SEED for Oklahoma Kids (SEED OK) experiment is a large-scale study of universal child development accounts with randomly-selected newborn children in the state of Oklahoma. SEED OK aims to test the concept of giving every child an account at birth, and to explore whether participation has an impact on saving for the child, parenting practices, parents' expectations for the child's future, and the child's developmental outcomes.

This research brief summarizes findings from empirical analyses comparing treatment and control group participants. The study uses 2007 birth records provided by the Oklahoma State Department of Health (OSDH), and the baseline survey data conducted from fall 2007 through spring 2008. Overall, treatment and control participants are similar to each other on observed characteristics.

Sample and Survey Interviews

The sampling design for SEED OK was led by RTI International. After considering various options and discussions among the research teams, RTI created a sampling frame randomly across the entire State, with oversamples of people of color—African Americans, Native Americans, and Hispanics.

The sample for the SEED OK study was drawn from Oklahoma State Department of Health records for births in April-June 2007 and August-October 2007. Of all families[1] contacted by researchers, 2,704 families agreed to participate in the study and were interviewed by RTI International for the baseline survey.[2] Study participants were identified as the main caregivers of SEED OK sample children. After the baseline survey was completed, SEED OK sample children were randomly assigned to treatment and control groups.

Families in the treatment group received $1,000 in an Oklahoma College Savings Plan (OCSP) account. If treatment participants open their own OCSP account and save for the child's post-secondary education, they may also receive a savings match. The savings match is progressive, and is available for families with an adjusted gross income of up to $43,500.

Demographic Characteristics from Birth Records

Analyses of child birth record data demonstrate that the child and parental characteristics of treatment and control group participants were not statistically different.[3] Table 1 presents descriptive findings of the two groups regarding child's race/ethnicity, child's gender, mother's marital status and education, age of mother and father, and child birth weight as reported in the 2007 birth registry (Table 1).

For both the treatment and control groups, about two-thirds (67%) are identified as non-Hispanic Whites (and other).[4] Other race/ethnicity groups are represented

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Table 1. Demographic characteristics: Birth records

	Treatment	Control
Child Race/Ethnicity (%)		
Whites and Other	66.73	66.57
African-American	8.90	8.94
American Indian	11.36	11.41
Hispanic	13.01	13.08
Child Gender (%)		
Female	46.41	47.52
Male	53.59	52.48
Mother's Marital Status (%)		
Married	59.20	60.72
Unmarried	40.80	39.28
Mother's education (mean, year)	12.72	12.74
Father's education (mean, year)	12.73	12.73
Mother's age (mean)	25.56	25.59
Father's age (mean)	28.94	28.54
Child birth weight (mean, gm)	3275	3249

in similar proportions in both groups, with African-Americans accounting for almost 9%, American Indians accounting for a little more than 11%, and non-White Hispanics accounting for about 13% of both groups.

Males represent a slightly higher and similar proportion of both treatment and control groups. Marital status of the child's mother is not different between the two groups, with approximately 60% of each group having been married at the child's birth.

The highest level of education achieved by mother and father is similar for the two groups, with a mean of 12.7 years. The ages for mothers and fathers in both groups are also similar, at an average age of 25 and 28 years old respectively.

Children assigned to the treatment group, on average, had a birth weight (3,275 gm) similar to those assigned to the control group (3,249 gm). None of the birth record characteristics show statistically significant differences between the treatment and control groups.

Study Participant's Characteristics from the Baseline Survey

According to the baseline survey data collected before the assignment of treatment and control groups, major characteristics of study participants

and households are similar between the two groups, as reported in Table 2. Study participants are almost all mothers.[5] The average age of study participants is about the same between the treatment and control groups (26 years old). Another similarity across groups is marital status of study participants, with approximately 60% in both groups being currently married and 30% having never married. The average household size (the total number of household members) in both groups is approximately four with an average of two children per household. The average household income of the treatment group ($32,038) is a bit higher than that of the control group ($31,569), but the difference is not statistically significant.[6] The majority of families currently rent (45% of treatment group and 46% of control group) or own their own houses (42% for both groups). As in cases of analyses with birth record data, none of the characteristics is significantly different between the treatment and control groups.

Household Assets and Savings from the Baseline Survey

Treatment and control group participants do not differ in asset ownership. Table 3 summarizes distribution of household assets for both groups.

Almost 75% of households have checking accounts and more than 50% of households have saving

Table 2. Participant and household characteristics: Baseline survey

	Treatment	Control
Relationship to Child (%)		
Mother	99.71	99.95
Father/Sibling/Grandmother	0.29	0.05
Marital Status (%)		
Married	61.49	61.48
Widowed/Divorced/Separated	7.07	7.20
Never married	31.44	31.33
Age (mean)	26.07	26.00
Household size (mean)	4.23	4.17
Number of children (mean)	2.13	2.07
Household income (mean, $)	32,038	31,569
Housing (%)		
Own	41.95	41.85
Rent	45.00	45.71
Have some other arrangement*	13.05	12.44

*This category includes those who live with friends/relatives, either pay partially or not at all, stay in a shelter, receive housing as part of a job, or other types of housing arrangements.

accounts in both treatment and control groups. About 62% of households in both groups use direct deposit into their checking or savings account. Comparatively smaller proportions of households hold retirement accounts than checking or savings accounts, and retirement account ownership does not differ between the two groups (41% for treatment participants and 40% for control participants).

Ownership rates of other types of assets are low: the percentages with savings bonds, stocks/ mutual funds, business assets (building, vehicles, equipment, or inventory), or rental property, land, or other real estate is about 10% or less, except informal savings (savings kept at home or with trusted persons), which is about 15%. Ownership rates of these types of assets are comparable across treatment and control groups. Differences between the two groups are not statistically significant for any of the asset variables.

Table 3. Household assets and savings: Baseline Survey

	Treatment (%)	Control (%)
Checking account	74.53	73.56
Saving account	55.10	54.72
CDs, treasury bills, or corporate bonds	5.43	6.00
Saving bonds	8.57	9.40
Retirement account	41.12	40.40
Stocks or mutual funds	10.21	11.04
Savings stored at home or with trusted friends or family members	14.96	15.69
Business assets	9.66	9.41
Rental property, land, or other real estate	7.22	8.23
Direct deposits to savings/checking accounts	62.14	62.00

Household Debt from the Baseline Survey

As in cases of household assets, treatment group participants do not significantly differ from the control group in household debt, except for personal loans. Table 4 shows the proportions of households with any money owed for various types of debt. Both treatment and control groups show high rates of debt in the forms of medical bills, car loans, credit card debt, student loans, and overdue bills. Among the treatment group, 54% of households owe on medical bills, while the figure is 52% for the control group. About half of both treatment and control group households have car loans.

Debt on credit cards is reported from 41% of treatment participants and 43% of control participants. In contrast, both treatment and control group households have low levels of debt on installment loans, home equity loans, debt consolidation loans, or business loans. The treatment group does not differ statistically from the control group in household debt, with the possible exception of personal loans. The difference between treatment group (21%) and control group (24%) in personal loan from banks, credit union, friends, or relatives can be viewed as marginally significant at the .10 level.[7]

Conclusion

The results of these analyses indicate that SEED OK children assigned to the treatment group are not statistically different from those assigned to the control group, with regard to the observed demographic and household characteristics. Among 36 variables examined, only one variable (personal debt) shows a marginally significant difference between the two groups, and we would anticipate a small number of statistical differences by chance. Thus, we can conclude that treatment and control groups are comparable to each other in terms of observed characteristics. These results indicate successful random assignment of SEED OK children.

This is very encouraging for the future SEED OK research. Going forward any differences in outcome measures between treatment and control groups may be attributed to the SEED OK intervention, not to different initial characteristics between the two groups.

In this regard, the SEED OK experiment is on a solid foundation for future research and impact assessment. An experiment that is successfully randomized at baseline offers an opportunity for learning far into the future.

Table 4. Household debt: Baseline survey

	Treatment (%)	Control (%)
Credit card bills	41.13	43.37
Car loans	49.94	50.44
Personal loans from banks, credit unions, friends, or relatives*	21.28	24.46
Home equity loans	5.94	4.76
Medical bills	53.58	52.28
Business loans	2.19	2.05
Installment loans for major items	9.68	9.03
Student loans	33.63	34.45
Debt consolidation loans	3.76	3.94
Mortgage on property other than home	5.00	6.33
Overdue bills	28.82	29.41

*$p < 0.1$

Endnotes

1   A sample of 7,328 children was drawn. Later, RTI decided to include only older twins from each twin set identified. Thus, the total number of Oklahoma families RTI attempted to survey was 7,297. Among 7,297 children, 182 cases were identified as ineligible (twin births not identified before survey or infant or maternal deaths).

2   Future interview waves are planned for 2011 and 2014.

3   In conducting statistical analyses, we weighted the data with a weight variable provided by RTI. The weight variable was created to take into account that the SEED OK study oversampled racial and ethnic minority groups (African Americans, Native Americans, and Hispanics). The weight variable also accounts for non-response bias.

4   When RTI created the race variable based on birth records, it combined non-Hispanic Whites with the other category (e.g., Asian) because an extremely small percentage of persons fall in categories other than White, African American, Hispanic, and Native American due to racial composition in Oklahoma. Accordingly, the non-Hispanic White and "other" category in this data set consist predominantly of children who are non-Hispanic White.

5   One respondent in the full sample is the child's father. A few others identified themselves as other relatives.

6   The top and bottom 5% of the sample in income distribution are excluded in calculating the mean and conducting a t-test because of the skewed distribution of this variable.

7   Not all researchers would count this as significant. The arbitrary but commonly accepted cutoff for statistical significance, especially with a larger sample size, is the .05 level.

Acknowledgements

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