

Child Interventions that May Lead to Increased Economic Growth:

A Report to The Pew Charitable Trusts

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In the paper below we set out to identify childhood interventions that hold promise in terms of increasing economic growth. These are interventions that might be supported by the public sector in an effort to enhance future well-being in the country. In this work we have reviewed more than 200 childhood interventions. We believe that there are a number of programs that are likely to lead to increased economic growth; that is, that hold significant promise.

1. BACKGROUND AND OVERVIEW

Background: Grunewald and Rolnick (2003) study programs that invest in children [CIs or childhood interventions] from the perspective of investments in local economic development. They argue that more traditional mechanisms for economic development, such as subsidies or tax breaks for attracting businesses, are often a zero-sum game, at best, when viewed from a national perspective. On the other hand, investments in CIs, and early childhood interventions [ECIs] in particular, yield high rates of return in their estimation. With a focus on preschool programs, the authors outline specific policy options for the state of Minnesota and elsewhere. In a follow-up article, Grunewald and Rolnick (2005) extend their discussion of economic development to other CIs and more thoroughly discuss the implementation of large scale CIs.

Many other researchers have studied the efficacy of early childhood interventions (ECIs). In fact, the expanse of research in terms of intervention type, experimental design, and intended benefits is astonishing. From an economic and policy perspective this interest in researching ECIs makes sense since childhood is commonly viewed as an important developmental stage in a person's life. Many follow-up studies of ECIs show lasting effects in terms of greater academic achievement, higher cognitive test scores, improved behavior patterns and lower crime initiation and recidivism, and even increased employment and wages. Not only are they lasting, but in many cases earlier

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interventions tend to produce effects that are greater in magnitude than those that are implemented later in a child's development. These findings are consistent with economic models of human and health capital development, and serve as promising indications of the possibility for enhancing the success and quality of life for many children, which success should contribute toward economic growth and the improvement of the nation's economy. This economic evidence is more sentimentally captured in the sometimes quoted phrase, "our children are our future." In this report, we focus on existing studies that could successfully be analyzed in terms of one very important aspect of potential benefits of CIs, namely economic growth. If individual's wages increase, their consumption and/or capital investment are also likely to increase thus fueling further economic growth. A more educated workforce is likely to increase productivity and the rate of technological innovation, also leading to positive effects on economic growth.

Overview We believe that it is possible to use data already collected on certain interventions and use them to show the effects of such interventions on economic growth. There are of course a number of other ways in which the benefits of ECIs may be measured, such as benefit cost analysis and equity considerations, but we do not address those here.

Based upon the perspective that economic growth is a useful point of view to take with respect to childhood interventions, we present specific programs that we believe show potential in positively affecting economic growth. In doing so, we discuss the criteria for which these programs were selected. These include the quality of experimental design, the breadth and duration of significant economic variables, and crucially, the relevance of these variables with respect to macroeconomic analysis. This last criterion is important because in order to take advantage of existing theoretical frameworks, one must draw on characteristics for which these frameworks have been designed.

We attempt to cast as wide a net as possible in including programs for consideration. These are listed in the appendix table by topic area in two groups: experimental and other. Our main emphasis is on experimental programs since they tend to have stronger research promise but we also include a select set of other programs. We do not restrict our attention to interventions for children of a certain age. Since there is evidence that interventions targeted at younger children appear to be particularly promising, we focus much of our attention on those programs. But we also consider programs targeted toward older children and adolescents. Our topic areas are arranged in roughly an age order with those targeted at the youngest age children first and those targeted at late adolescents last.

Section 2 includes a discussion of the criteria used to select CIs for review. In Section 3, we review selected programs based on these criteria, while tables 1 and 2 provide detail on the interventions. In the remainder of this section, we note previous related studies.

Previous Studies Broad reviews of CI evaluations include Barnett (1993), Barnett (1995) and Karoly et al (1998). Currie (2001) provides a thorough discussion of the issues surrounding education interventions, with particular attention to preschool programs. WSIPP (2004) research and record a substantial catalogue of CIs in all categories. With a specific focus on policy for the state of Washington, the authors discuss the merits of investing in CIs from the perspective of state funding; the work serves as a valuable reference list for some of the large number of CI evaluations. Karoly and Bigelow (2005) focus on state based preschool programs. And as noted above, Grunewald and Rolnick (2003) study various CIs viewing them as investments in local economic development. Since they have already done so for the Perry Preschool, the Head Start, and Carolina Abecedarian programs, these are not included here.

2. CRITERIA FOR CANDIDATE PROGRAMS

CIs have the potential to significantly affect economic growth in positive ways. Because CIs, and especially ECIs, condition all future gains in human and health capital, they are particularly likely to yield a high return in terms of economic benefits. The benefits of CIs carry over to society as a whole through pathways such as increases in the skill of the labor force (attracting employers and increasing innovation), increases in the health of the population (freeing up time for increased productivity and lessening the burden on the health care system), and reductions in crime (lessening the burden on the criminal justice system).

Examples of economic growth indicators include an increase in level of schooling of the population of young adults, or a subpopulation of young adults and eventually the broader adult population, earnings, earnings growth and earnings distribution of the population, similar measures of total compensation, increased probability of labor force participation and employment for a given set of individuals, the number of healthy and productive work days for the employed, the level of productivity per hour of work, increased consumer efficiency in the purchase and use of consumer goods and services, and increased human capital of the next generation. The impact of a program on these or any related indicators could then be translated into changes in the rate of economic growth.

How can a policy making body or a private organization decide which of the CIs to invest in when looking to affect economic growth, among other things? In this section we will offer some criteria to help identify candidate programs; that is our aim is to identify programs that show promise in terms of their promise to increase economic growth.

Fundamentally, it is crucial that a successful CI implementation and evaluation be designed in such a way causal mechanisms are identifiable. In other words, the researcher needs to be able to say with confidence that confounding effects such as omitted variables or selection effects do not bias their results. In our review, we look for CIs that most closely achieve this identifiability. Randomization into a treatment group across as many characteristics as possible, or as is appropriate, is of course the most important criterion in this pursuit. To the extent that a CI uses a truly random sample, we can be confident that there are no selection issues insofar as comparisons between treatment and control groups are concerned.

Next, the control groups must be constructed in such a way that the relevant characteristics of the CI are accurately separated out. In some cases, there may be effects linked to the treatment group that are secondary to the intent of the CI but which actually are the major drivers of the results. For example, a well constructed control group might consist of children who are admitted to a CI but who are simply put on a waiting list for a year. In this case, both the treatment and control groups experience the same anticipation of participation, so the anticipation effect is effectively controlled for. This allows the researchers to be more confident that their analysis focuses on specific features of the CI.

With regards to program design, one potential concern is that since many of the CIs that have been implemented and evaluated are targeted towards disadvantaged populations, their overrepresentation may bias the results. This may be the case when viewing the results of an evaluation in the context of a group that is of a different composition than those in the evaluation, or the population as a whole. However, the results are valid for the population that the sample represents. So, as long as policy decisions are made with this in mind, there should be no difficulties in extending a CI to similar populations. There are clearly a variety of reasons to focus programs on the disadvantaged populations including the possibility of very high rates of return as well as equity grounds so we do not view the abundance of programs with a limited scope as a problem.

Another set of criteria that were important in our consideration of CIs were with respect to sample collection. Probably the most important consideration is sample size. In general, the rule is that the larger the sample

is the better, since a larger sample yields more statistical power and allows the researcher to estimate the level of program effects with higher precision. With particularly small samples, also, it is often difficult to reject the hypothesis that a CI had no effect on the population, even if there actually were effects.

Related to sample size is sample attrition. In evaluations, researchers had a range of success in eliciting responses in follow-up interviews. Reasons for why this occurs may include general difficulties such as the problem of tracking down contact information over long periods of time, when people may have moved or otherwise become unreachable. Other reasons that could be more damaging to the evaluations may include intentional avoidance of the interviews on the part of some participants, or in other cases intentional pursuit of interviews. Problems such as the increased difficulty of contacting individuals who engaged in criminal activity may be particularly damaging in some studies. In general, we viewed smaller attrition rates as unambiguously better, and so ranked those studies with lower attrition rates as more favorable. Additionally, we accounted for situations in which researchers attempted to show that attrition did not affect the sample composition for important characteristics, or in which researchers suspected that attrition affected the sample in specifically predictable ways.

Attrition is only one of the ways in which sample selection may be introduced into an evaluation, so we are also cautious of other sample selection possibilities when considering CIs. For example, there may be sample selection, on the part of either the program designer or the participants, in either the initial recruiting process or the subsequent baseline evaluation, or both.

Next, we take into account special considerations that are particularly important when thinking in the context of economic growth. As in cost-benefit analyses, when employing models of economic growth, the longer the follow-up duration the better. This is true because many of the economic returns to CIs, and especially ECIs, occur relatively far into the future. For example, major determinants of economic growth include the labor supply decisions of workers as well as the rate of technological innovation, both of which most often occur in adulthood. In the case of some ECIs, these returns may only be directly measurable up to 20 years after the program itself is implemented. So, economists rely on techniques to forecast specific program effects into the future in order to then estimate their benefits or effects on economic growth.

Another consideration that is extremely important is the idea of outcome relevance. That is, there are some outcomes that are much more feasibly descriptive of human or health capital than others. For example, cognitive test scores are often viewed as at least a somewhat reasonable proxy for human capital since they capture both heritable

features and investment in a child. Examples of outcomes that may be more difficult to employ in human or health capital framework are social or psychological outcomes. This is not to say that the link cannot be made, but it may be more difficult to do so. At the least, we view outcomes that are more directly linked to human or health capital development as more conducive to economic growth research than those that are more indirect, since the latter may introduce error.

Finally, we consider any general features of the CI that may influence its replicability. For example, results from a study that is restricted to one location may not be as generalizable as studies performed in multiple locations. More specifically, the location may have idiosyncratic characteristics that can introduce special effects into the evaluation. Another example of this is person-specific effects. For example, a CI evaluation that consists of a reasonable sample size but nonetheless depends on the specific characteristics of a few individuals (such as home visiting nurses, for example) may warrant caution.

In all, these criteria for CI consideration are consistent with many criteria sets used in the past with respect to evaluations. However, we have highlighted that there are some special considerations necessary when thinking in the context of economic growth, and we have discussed and emphasized their importance.

3. DISCUSSION OF PROMISING CHILDHOOD INTERVENTIONS.

We begin this section with a discussion of a selection of CIs that we believe to be well suited to further research in the context of economic growth, including further evaluation and forecasting via economic models. Using the criteria discussed in the last section, we studied almost 200 CIs that have been implemented through various means and that have been evaluated in experimental or, in some cases, quasi-experimental settings. To see a full list of the CIs studied, please refer to the appendix. In searching for programs to include in our analysis, we first located listings of relevant programs at the suggestion of other researchers in the field. With these listings as a firm grounding, we explored other related channels, both through other work by referenced researchers or firms, and through categorical or topical web based searches.

For a summary of the findings detailed here, please refer to Tables 1 and 2. In this section, we more thoroughly discuss some of the most promising programs, which are summarized in Table 1. In Table 2, we also mention other promising programs but do not discuss them separately.

1. Nurse Family Partnership

In an attempt to improve prenatal care and the health and caretaking of infants, the Nurse Family Partnership assigns nurses to visit the homes of disadvantaged women who are new mothers or pregnant. The program has been implemented for evaluation at multiple sites, including Memphis, Tennessee; Elmira, New York; and Denver, Colorado. Because a long follow-up duration is particularly important in the context of economic growth, we focus on the Elmira site because it offers the opportunity to view outcomes after a 15 year follow-up. For examples of studies involving the Memphis and Denver sites, see Olds et al (2004) and Olds et al (2002). Here, we review the results reported by Olds et al (1998), regarding the Elmira site.

In collecting sample data, the researchers recruited women who were less than 25 weeks pregnant and who had no previous live births. Most of the women were young, married, or of low SES. Between April, 1978 and September, 1980, 400 women were enrolled in the program out of the 500 invited to participate.

After a baseline interview, the women were randomly assigned to one of four treatment groups, arrayed by intensity of intervention. The first group or baseline control group screened children at 1 and 2 years and referred for care only if necessary. The second group, received free transportation for medical care until the child was 2 years old. The third group received nurse home visits during pregnancy in addition to transportation. The fourth group received nurse made visits until the child was 2 years old plus transportation. Assessments were made of the children at different stages of their development including a 15 year follow-up. This is a substantial follow-up duration with results that are likely to last. The relatively low attrition rate of 22 percent is a strength as well. Children whose families received visiting nurses reported fewer arrests, convictions, and violations of probation, but reported being stopped by police more frequently than did those children whose families did not receive visiting nurses. Minor crimes accounted for most of the program's effect. Children whose families received visiting nurses reported fewer sexual partners, lower rates of cigarette smoking, and fewer days of alcohol consumption. Results for illegal drug use and teacher reports of problem behavior did not follow the expected pattern. Families with low SES showed the greatest effects from the treatment across most variables.

In drawing conclusions from the Elmira study some caution is appropriate. Although effects were strong even after 15 years, the results were driven mostly by the low SES group. Results are from a rural area (In part, the motivation for studying the program's effects at other sites is to address this.) And, there is the possibility that idiosyncratic characteristics of the nurses at least somewhat contribute to the effects.

2. Chicago Child-Parent Center Program

Aside from Head Start, the Chicago Child-Parent Center program (CPC) is the oldest federally funded preschool program in the country. The program was started in 1965 with the goals of improving the academic achievement of disadvantaged children and involving parents more in their child's education. CPC was a center-based intervention that included education, family, and health services to all participants. Children entered CPC between the ages of 3 and 4, and services were usually offered until the age of 6, but they sometimes continued until age 9. For the preschool portion of the program, children attended for half-day sessions during the 9 month school year, and beginning in kindergarten the program consisted of full day participation during the school year. Key features of the program included smaller than normal class sizes, including 1 to 8 children in preschool classrooms and 1 to 12 children in kindergarten classrooms. Also, parents were encouraged to directly participate in the education process. Finally, children who participated in CPC were drawn from low income, largely African American areas of Chicago.

Reynolds (1999) describes an evaluation of the effects of CPC, called the Chicago Longitudinal Study (CLS) on a number of relevant outcomes. The study includes all 1,150 children who participated in the kindergarten segment of the 20 Child-Parent Centers in operation between 1985 and 1986. Since most of the participants in CPC were from low income areas, a matched comparison group consisted of 550 students from 5 randomly chosen Chicago area public schools that served similarly disadvantaged children. Clearly, this non-random assignment process may have introduced selection bias into the subsequent statistical analysis. For example, among low income areas there may have been competition to live in districts that were served by CPC if it was believed that CPC was more successful at improving student achievement. Insofar as any important differences between the CPC group and the comparison group are controlled for by observable characteristics, however, there will be no selection bias.

At age 14, 772 CPC group participants and 392 comparison group participants were evaluated for a range of outcomes. This represents an overall attrition rate of less than 25 percent, a relatively low rate considering the follow-up duration. Indeed, the favorable combination of attrition rate and follow-up duration adds confidence that program effects will persist. In addition, evaluations of this sample are ongoing, so there is promise that outcome measurements will extend well into participants' wage earning years. Evaluations to date include higher school achievement, lower dropout rates, fewer events of juvenile delinquency and higher probability of attending a college

or university. Many of these are directly relevant to economic growth. With appropriate caution due to the non-random design of the study, we believe that the program results warrant further study.

3. Classwide Peer Tutoring

The Classwide Peer Tutoring program (CWPT) was developed with the intent of engaging elementary school children in classroom activities and to foster greater student achievement. Development of the program was motivated by the fact that children who had more of an "opportunity to respond" in class tended to be more successful in school (Greenwood et al, 1989). As a result, the program seeks to maximize engagement by pairing students in a tutor-tutee relationship where students administer questions to each other. By identifying and rewarding daily and weekly winners in a competition between groups, the children are motivated to perform well.

Greenwood et al (1989) evaluated the program in a longitudinal evaluation of students between the first and fourth grades. The program consisted of a random experimental design in which a treatment group was drawn from children in families with low socioeconomic status (SES). Those not selected for the treatment group served as the control group. In addition, the researchers identified a group of students in families with high SES to serve as a comparison group. Children attending nine schools in Kansas City, Kansas form the sample.

Baseline evaluations were given at the outset of the program (at the beginning of first grade) and follow-up evaluations were given after students completed fourth grade. Attrition is an issue with this study given a 56 percent attrition rate including a 68 percent rate among the experimental group. Most of this is due to reassigning children to schools not participating after the district closed one school. Outcome measures included standardized achievement tests relative to national averages. The researchers found significant differences between the treatment group and the control group, and the comparison group and the control group. On average, the treatment group scored more than 10 percentage points higher than the control group on the achievement test.

The relationship between the program and economic growth models is somewhat promising. Achievement test scores provide a reasonable link to the human capital framework, and the measurement duration of four years is a significant period of time. However, the children were only last evaluated in the fourth grade, well before impacts on economic growth might be realized. The location in one city creates some question of replicability.

4. Healthy Kids

In order to address gaps in health insurance coverage among low income families, the Healthy Kids program was started in Santa Clara County, California, in 2001. The Healthy Kids program provides health, dental,

and vision insurance coverage for children in families who earn below 300 percent of the Federal Poverty Line (FPL) and who are not eligible for the two state funded programs. Since citizens below 250 percent of the FPL are eligible for at least one of the state funded programs, the majority of the participants in Healthy Kids are not otherwise covered because of their immigration classification. A total of over 30,000 families have been covered under the program since its inception.

More than 80 percent of the participants are Latino and live in non-English speaking households, most of the children live in two parent households and the vast majority live in households with at least one working parent, suggesting that most of the participants' parents work in jobs that do not offer health benefits. Prior to the program 63 percent of the children had no health insurance within the previous six months before enrollment, and 45 percent were never covered.

Trenholm et al (2005) report on a survey administered by Mathematica with the purpose of evaluating the effects of the Healthy Kids program. The evaluation was not a random assignment study, but instead compared two groups of participants separated by the timing of coverage. In particular, "established enrollee" children were participants who had been involved in the program for approximately one year and had completed renewal of coverage (treatment group), while "recent enrollee" children were those who were interviewed at the time they became eligible for Healthy Kids, but who had not yet participated (control group). Insofar as the sample was a random selection of participants from each of these groups and as long as there were no significant idiosyncratic year shocks, the design will yield reasonable estimates of the program effects. The total number of respondents was 1,235, the survey response rate was high (89 percent).

In terms of outcomes, the program reduced the proportion of children with unmet need in the past six months from 22 percent to 10 percent across all categories, including well-child visits, sick-child visits, specialty care, prescription medications, and dental care. There were also substantial increases in the proportion of children who had a usual source of primary care (50 percent to 89 percent) and those with a usual source of dental care (29 percent to 81 percent.) There are some caveats in considering the program in the context of economic growth: the population is a specific, though large and growing group whose results may not generalize to other areas or groups; it may be difficult to relate some of the outcomes to economic growth, as they are only measured over one year, and finally, the outcome measures themselves are only secondary to variables directly relevant to economic growth, so the introduction of error in tying them into economic growth models is of concern.

5. Big Brothers Big Sisters of America

Big Brothers Big Sisters (BBBS) is the oldest and one of the most well-known mentoring programs in operation. At any given time, there are approximately 75,000 mentor-child matches nationwide. Local programs function as affiliates of the national program which plays the important role of providing criteria and standards for the appropriate functioning of the local programs and development of matches. This consistency across programs is important if any experimental findings are to be generalizable.

For the most part, the programs recruit and screen youth and mentors who have an interest in forming a match. Then, based on background characteristics and stated preferences, the programs match youth and mentors. Mostly, the children are from disadvantaged families, often with a single parent. The matched youth and mentor will then meet approximately three or four times each month for at least a year.

Tierney and Grossman (1995) report on a study in which Public/Private Ventures selected eight BBBS programs nationwide for evaluations based on program size and geographic diversity. The sample consisted of 1,138 youth between the ages of 10 and 16 (mostly between 10 and 14) most of whom were from disadvantaged families. After baseline interviews were completed, the youth were randomly assigned to either the treatment or control group where the treatment group were immediately matched to mentors while the control group were placed on an 18 month waiting list for the program. Placement on a waiting list is a useful control for any effects that might be associated with a participant's anticipation of participating in a program. After 18 months, participants were administered a follow-up interview with a low 15.7 percent attrition rate. In terms of outcomes, participants were 46 percent less likely to initiate alcohol use, one-third less likely to hit someone, skipped half as many days of school, and showed modest gains in school achievement.

The table also includes two additional programs, Career Academics and the Job Corps, both directed at increasing the employability of young adults. Both of these appear very promising as interventions to encourage work and increase the productivity of young adults.

4. SUMMARY/CONCLUSIONS

Overall it appears that there are a number of interventions that are likely to increase economic growth. Many additional programs are included in the Table Two. As noted above, Table One includes those programs that we view as most promising. Table Two includes those we view as promising. The remainder of the studies we

analyzed are included in the table in the appendix. We do not view them as particularly promising in terms of being able to assess their link to economic growth. This should not be interpreted to mean that they have not or could not contribute to such growth but rather that given the nature of the evaluation and data collected, it is not possible to determine the contribution of the program to economic growth.

We view the lack of careful evaluation of the majority of interventions as a separate “problem”. It appears that all too frequently those with creative ideas for intervention overlook evaluation or are unwilling to spend the resources necessary for an evaluation that would establish the success of the program. Even among those studies who consider evaluation, very frequently it is very short term in nature so that it is difficult to tie the intervention to longer run outcomes including economic growth.

In conclusion, we have done a search for childhood interventions that are likely to lead to increases in economic growth. By suggesting tools for evaluating such interventions and studies and reviewing programs in order to recommend further research, we have argued that research in this direction is both feasible and likely to yield exciting results.

REFERENCES

- Aos, S., Lieb, R., Mayfield, J., Miller, M., and Pennucci, A. (2004). *Benefits and costs of prevention and early intervention programs for youth*. Olympia: Washington State Institute for Public Policy.
- Barnett, W. S. (1993). Economic evaluation of home visiting programs. *The Future of Children*, 3(3), 93–112.
- Barnett, W. S. (1995). Long-term effects of early childhood programs on cognitive and school outcomes. *The Future of Children*, 5(3), 25-50.
- Becker, G. (1964). *Human capital: a theoretical and empirical analysis with special reference to education*. New York: Columbia University Press.
- Carneiro, P., Cunha, F., and Heckman, J. (2004). *The technology of skill formation*. 2004 Meeting Papers 681, Society for Economic Dynamics.
- Carneiro, P. and Heckman, J. *Human capital policy*. NBER working paper series working paper 9495. National Bureau of Economic Research, 2003.
- Currie, J. (2001). Early childhood education programs. *Journal of Economic Perspectives*, 15(2), 213-238.
- Decker, P.T., Mayer, D.P., and Glazerman, S. (2004). *The effects of Teach for America on students: findings from a national evaluation*. Mathematica Policy Research, Inc.
- Dunifon, R. and Kowalski-Jones, L. (2003). The influences of participation in the National School Lunch Program and food insecurity on child well-being. *Social Service Review* (March).
- Greenwood, C.R., Delquadri, J.C., and Hall, R.V. (1989). Longitudinal effects of classwide peer tutoring. *Journal of Educational Psychology*, 81, 371–383.
- Grossman, J.B. and Tierney, J.P. (1998). Does mentoring work? An impact study of the Big Brothers Big Sisters Program. *Evaluation Review*, 22(3), 403-426.
- Grossman, M. (1972). On the concept of health capital and the demand for health. *The Journal of Political Economy*, 80(2), 223-255.
- Grunewald, R. and Rolnick, A. (2005). A proposal for achieving high returns on early childhood development. Minneapolis, MN: Federal Reserve Bank of Minneapolis.
- Karoly, L. and Bigelow, J. (2005). *The economics of investing in universal preschool education in California*. Santa Monica, CA: RAND Corporation.
- Karoly, L., Greenwood, P., Eviringham, J. Hoube, J., Kilburn, M., Rydell, C., Sanders, M., Chiesa, J. (1998). *Investing in our children: what we know and don't know about the costs and benefits of early childhood interventions*. Santa Monica, CA: RAND.
- Kemple, J. J. and Scott-Clayton, J. (2004). *Career Academies: impacts on labor market outcomes and educational attainment*. New York: Manpower Demonstration Research Corporation.
- Mincer, J. (1974). *Schoolings, Experience, and Earnings*. NBER, distributed by Columbia University Press.
- Olds, D., Henderson, C.R., Jr., Cole, R., Eckenrode, J., Kitzman, H., Luckey, D., Pettitt, L., Sidora, K., Morris, P., and Powers, J. (1998). Long-term effects of nurse home visitation on children's criminal and antisocial behavior. *Journal of the American Medical Association*, 280, 1238–1244.

Olds, D., Hill, P., and Rumsey, E. (1998). Prenatal and early childhood nurse home visitation. *Juvenile Justice Bulletin No. NCJ-172875*. Washington, DC. Office of Juvenile Justice and Delinquency Prevention.

Olds, D., Kitzman, H., Cole, R., Robinson, J., Sidora, K., Luckey, D.W., Henderson, C.R. Jr., Hanks, C., Bondy, J., and Holmberg, J. (2004). Effects of nurse home visiting on maternal life-course and child development: age-six follow-up of a randomized trial. *Pediatrics*, 114, 1550-1559.

Olds, D., Robinson, J., O'Brien, R., Luckey, D., Pettit, L., Henderson, C., Ng, R., Sheff, K., Korfmacher, J., Hiatt, S. and Talmi, A. (2002). Home visiting by paraprofessionals and by nurses: a randomized, controlled trial. *Pediatrics*, 110(3), 486-96.

Rolnick, A. and Grunewald, R. (2003) Early childhood development: economic development with a high public return, *The Region*, December, 2003.

Trenholm, C.A., Howell, E., Hughes, D., and Orzol, S. (2005). *Santa Clara Healthy Kids Program reduces gaps in children's access to medical and dental care*. Mathematica Policy Research, Inc.

Table 1: Most Promising Childhood Intervention Programs

Program	Category	Description		Outcomes	Follow-Up	Replicable	Relevance
Nurse Family Partnership	Home Visiting	The program provides nurse home visits and referral services for mothers and children until the child is two years old. The study with the longest measurement duration was administered in Elmira, NY. Women were recruited if they had no previous live births, and most participants were young, unmarried, or of low socioeconomic status.	500 women were recruited, and 400 enrolled. Participants were randomized into 4 treatment groups. The attrition rate was 22%.	Participants reported fewer arrests, convictions, violations of probation, lifetime sex partners, cigarettes smoked per day, and fewer days of alcohol consumption in the last 6 months. Effects were greatest among mothers with low socioeconomic status.	15 years.	There may be issues with respect to the specific implementation processes by nurses.	Relevant. There is a large number of significant outcomes, and the follow-up duration extends well into high school.
Chicago Child-Parent Center program	Preschool	A non-randomized group of children who lived in a set of low income areas were invited to participate in a program that included education, family and health services. The program began at ages 3 to 4 and included services to age 6 with some continuing to age 9. The matched group lived in other low income areas of Chicago where CPC was not offered and primarily consisted of full day kindergarten.	There were 989 participants in CPC. 550 participated in other related but less ambitious programs.	Some outcomes include grades and other achievement measures, parental involvement, arrests, grade retention, special education, completion of high school, and post-secondary education. In nearly every case, CPC participants performed significantly better.	Ongoing, and this study evaluates through age 23.	Likely to be replicable, but the a random design would have increased confidence.	Very relevant. Measurement duration extends into the adult wage earning period, and there are many measures to base further analysis on.
Class Wide Peer Tutoring	School	Participant children are recruited within classrooms for a peer tutoring process with rewards for progress. Those included in the evaluations were from grades 1-6 in inner city low income neighborhoods. The program has also been tested with children with learning disabilities and children in higher income areas.	Sample size groups for the evaluations range from 4 to more than 400.	Students who started the program in first grade performed significantly better on national standardized tests for math and reading. Other outcome measures include time spent on task, grades received, and other standardized test outcomes.	Evaluators claim that results persist for at least three years.	This program appears to be easily replicable and is of very low cost. The main issue of replicability is in establishing the pairing mechanism.	Relevant. Measurement outcomes are evaluated only a few years past elementary school, but the measured variables are important.
Healthy Kids	Health	Healthy Kids provides health insurance coverage to children in Santa Clara County with household income below 300% of FPL and who are ineligible for the major state health insurance programs. More than 80% of the population served is Latino. The data for the analysis is drawn from a survey of program participants over a single year. Recent enrollees are used as a comparison group to measure the program's effects.	Total sample size is 1,235, and 89% of enrollees contacted for the survey responded.	The results show that the program reduces unmet need, improves access to health care, and improves health care usage.	Effectively one year.	Difficulties in replicability may arise from the fact that the program was administered in a single county. Also, the results may only generalize to similar populations.	Somewhat relevant. The outcomes measured only relate to economic growth through improved health. Also, the measurement duration is short.
Big Brothers, Big Sisters	Mentoring	This is a nationwide mentor program that matches adult volunteers with children who tend to be from single parent families. The study population were 959 10-16 year olds who applied to the program in 1992 and 1993; half were assigned to the treatment group while half were assigned to a waiting list.	The study chose 1,138 youth to be in the study, 84.3% completed both surveys. 487 were in the treatment group of whom 378 were matched. More than half are minorities, almost all lived with one parent.	Findings are based on self reports. Those paired were 46 percent less likely to initiate drug use, 27 percent less likely to initiate alcohol use, one-third less likely to hit someone, skipped half as many days of school and showed modest gains in school achievement.	18 months.	Yes, the program is in many cities and has a long history.	Somewhat relevant. The outcome measures themselves are tertiary to economic growth, while the measurement duration may in some cases extend close to working age.

Program	Category	Description		Outcomes	Follow-Up	Replicable	Relevance
Career Academies	Job Training	This program seeks to keep students in high school and prepares them for the transition to further education and employment. The study was conducted at nine high schools located in urban, low income areas nationwide. Participants were selected for the study by lottery.	A total of 1764 students completed the program and 1458 (83%) completed the follow-up survey. Only 55% of students finished the program, with varied dropout rates. Conditional on completion, attrition was relatively low.	Men in the treatment group earned significantly higher wages. The effect was concentrated among members who were at high or medium risk of dropping out of high school upon enrollment.	Four years after the participant's scheduled graduation from high school.	The study was implemented at sites that had already implemented Career Academies for 2 previous years. This may have introduced some selection bias.	Very relevant. Wage data is clearly important for economic growth analysis.
Job Corps	Job Training	Over a 13 month period in 1994-5, applicants nationwide were randomly assigned to a treatment group that could enroll in Job Corps and control group in which members could not (they could receive other services, however.) Most applicants are high school dropouts, most are minorities and about a quarter had an arrest record. The program offers residential and non-residential settings, providing education and vocational services, counseling, and medical care.	9,400 were in the treatment group and 6,000 in the control group. Follow-up interviews had an 80% response rate.	Outcome measures include hours of additional education, obtaining of a GED degree, literacy tests scores, earnings, cash welfare assistance, and arrests. Significant differences in crime account for a substantial share of benefits of the program.	Outcomes were measured at 12, 30, and 48 months.	This is a nationwide program. The authors claimed that the program had similar impacts across sites.	Very relevant. Measurement duration extends into adult wage earning period, and there are many measures to base further studies on.

Table 2: Promising Childhood Intervention Programs

Program	Category	Description	Sample	Outcomes	Follow-Up	Replicable	Relevance
OB Access Project	Health	The OB Access Project was a comprehensive prenatal care program designed to improve health outcomes (specifically, birthweight) for infants of at risk mothers. The program was administered in 13 counties in California between 1979 to 1982.	There were 5,244 births in the experimental group with an equal number of matched, non-randomly assigned births in the comparison group. This is a large sample, although a randomized structure would have yielded more reliable results.	The experimental group showed a significantly lower rate of low and very low birthweights.	There was effectively no follow-up since the evaluation was performed at birth.	The large size of the sample lends itself toward replicability, although the non-random design may limit the results.	Somewhat relevant. Birthweight must be connected through other variables to predict future economic growth effects.
Vermont Intervention Program	Health	The program was designed to assist mothers of low birth weight infants, consisting of hospital and home sessions. Low weight Infants born in the Medical Center Hospital in 1980 and 1981 were randomly assigned to either the experimental or control low birth weight group. A normal birth weight group was formed by recruiting infants born immediately after a low birthweight baby.	There were 24 children in the LBWE group, 31 in the LBWC group, and 36 in the NBW group. At age 9, 86.7% of the original group were given follow-up tests, a low attrition rate.	Infants in the low birth weight experimental group were found to be no different from the normal birthweight control group and significantly better off than the low birthweight control group. Outcome measures include cognitive scores, academic achievement, and behavior.	Follow-up evaluations were done at age 9. The authors note a general trend toward a widening of the gap between LBWE and LBWC.	Because the analysis was performed at a single hospital with a relatively small sample, generalizability may be questionable.	Relevant. The outcome measures can be related to economic growth, and the follow-up period was long.
IHDP	Home Visiting	IHDP is a multisite randomized trial including center-based educational intervention, home-based family support services, and pediatric follow-up. Children were enrolled from Oct. 1984 to Aug. 1985 according to specific birth weight and gestational period requirements.	At baseline, 377 experimental group infants and 608 control group infants were included in the study. At follow-up, 89% of the infants were evaluated.	In the heavier LBW group there were some significant improvements over the control group, including IQ score and some cognitive achievement scores. The overall intervention group, however, fared worse than the control group on a physical functioning subscale.	Children were assessed 8 years after the intervention, which was at birth.	That only modest results were only found for a subset of low birthweight infants suggests the generalizability of the program extends to a small group.	Somewhat relevant. The outcomes can be used in economic growth studies, but the follow-up duration is short.
Parent Child Home Program	Home Visiting	PCHP was a literacy focused home intervention program designed to improve outcomes for at-risk infants and toddlers. The evaluation was conducted with the children of low income and education parents in the Pittsfield, Massachusetts public schools.	The original sample consisted of five cohorts of 209 students, randomized between experimental and control groups, who were age two between 1976 and 1980. Only 123 students were available for follow-up, a relatively high attrition rate.	Students in the experimental group graduated from high school at a higher rate and dropped out a lower rate than those in the control group.	The long follow-up period provides confidence in the persistence of program effects.	The study was performed in a single district, so the results may not consistently generalize to other areas.	Relevant. To the extent that graduation rates are related to employment outcomes, the results are informative.

Program	Category	Description	Sample	Outcomes	Follow-Up	Replicable	Relevance
Early Head Start Demonstration	Preschool	Early Head Start is a program designed to promote child development and strengthen family and community relationships with respect to infants and toddlers. Eligible children were recruited under the normal recruitment standards for EHS, but were then randomly assigned to experimental and control groups.	The original sample includes 1513 in the treatment group with 1488 in the control. Follow-up response rates were generally high.	There were significant differences in cognitive, language, and social-emotional development between experimental and control groups.	Up to 2 years after the study's end.	Since the fidelity of implementation was decided by each site, there were varying levels of actual implementation.	Somewhat relevant. The outcomes measured provide useful information, but the measurement duration is not long.
Fast Track	Mental Health	Fast Track is a multisite intervention that aims to reduce problem behavior in children. Screenings by parents and teachers identified at-risk children in kindergarten, and the highest at risk 15% of the children were invited to enroll. Interventions consisted of home visiting, academic tutoring, and social-skill training.	Enrolled students were randomized by elementary school (there were 54 of them), with a total of 445 children in the experimental group and 446 in the control group. By fifth grade, the last year of the program, 10% of the children were no longer participating.	Compared to the control group, the experimental group showed significant, if small, improvements in social competence and social cognition, involvement with deviant peers, and conduct problems in the home and community.	The follow-up evaluations were administered after fourth and fifth grade.	The screening process should be duplicated with high fidelity to avoid any selection issues with the sample.	Somewhat relevant. Most variables are loosely related to economic growth.
Making Proud Choices	Health	This is a safe-sex oriented intervention with the goal of reducing HIV transmission among low-income African Americans adolescents. The experimental group received education on HIV prevention while the control group received education on other non-sexually transmitted diseases such as cardiovascular disease.	The experimental group consisted of 218 adolescents while the control consisted of 214. There was a 5% attrition rate at the 12 month follow-up.	Members of the experimental group who reported sexual experience at baseline reported less sexual activity and less unprotected sexual activity at the 12 month follow-up.	There were follow-up surveys conducted at 3, 6, and 12 months.	Because the program was administered to a specific socioeconomic group in a single city, generalizability may be limited. Also, the results were only significant for specific methods of AIDS prevention.	Somewhat relevant. The outcome measures relate to economic growth only through fertility rates and health considerations, and the follow-up period is short.
Multidimensional Treatment Foster Care	Juvenile Justice	The program aims to reduce behavior problems and delinquency among adolescent chronic offenders. The randomized study uses traditional group care facility treatments as a control. Participants were selected from a group of boys referred for community placement by the juvenile justice system and for whom parents gave consent.	37 participants were assigned to the MTFC condition while 42 were placed in the GC condition. There were no issues with attrition.	Boys in the experimental group had significantly fewer criminal referrals and more often were able to leave the program to live with family.	A 1 year follow-up was conducted.	Foster parents who were recruited for the program may have exerted more effort knowing that it was a demonstration trial. The small number of participants is problematic since the the foster parent sample may not be representative of its population.	Relevant. Criminal activity is useful in analysis, but the follow-up period is short.

Program	Category	Description	Sample	Outcomes	Follow-Up	Replicable	Relevance
NCICAS (National Cooperative Inner-City Asthma Study)	Health	The NCICAS was a multisite intervention to reduce asthma symptoms and hospitalization as a result of asthma. Participants were drawn from inner-city areas where at least 20% of the population was below the FPL and were required to meet certain conditions classifying their condition as asthma.	The experimental group numbered 515 while the control group was 518. However, the randomization occurred at the Asthma Study Unit level, which were groups of 6 or 8. Attrition was low, with more than 92% of the participants completing at least half of the phone interviews.	The experimental group showed significantly fewer symptom days and hospitalizations (the latter at the 10% level) than the control group.	The two year measurement duration (concurrent with the treatment) may be too short for potential analyses.	The results of this study are likely to be replicable on a large scale, assuming that there is an available pool of master's level social workers to administer it.	Somewhat relevant. The outcome measures are loosely related to economic growth, and the measurement duration is short.
TN-STAR (Tenn. Student Teacher Achievement Ratio)	School	Project STAR was designed to examine the effects of class size on student achievement. In 1985-1986, kindergarten students and teachers were randomly assigned to classes of varying sizes within their school. Students then remained in the same class type for four years.	Over all years, the sample included 11600 students from 80 schools. Attrition is an issue since half of the students present in kindergarten were missing in at least one subsequent year.	Outcomes were measured in terms of math, reading, and word recognition achievement tests at each grade level, appropriate for that grade level. There was a significant effect of class size on student achievement.	Outcome measurement was conducted only during the grades for which the program was implemented (4 years). Other researchers have conducted research with these data and found a higher probability of attending college.	The author argues that there should be no issues with replicability in terms of teacher performance. Also, the sample includes a large number of schools, so location may not be a large factor.	Somewhat relevant. The outcomes are relevant to economic growth, but greater follow-up is desirable..
Teach for America	School	TFA is designed to low-income communities improve academic achievement by assigning well educated teachers to community schools. The study evaluates outcome differences between TFA teachers and other teachers in the community through random classroom assignment.	The sample includes 100 classrooms and 2,000 students. The unit of observation is effectively the classroom.	Students of TFA teachers were shown to have significantly higher math achievement test scores after intervention than did the control group, but there was no effect on reading ability or other outcomes.	The analysis was done over the period of one school year.	Expanding TFA may dampen the measured effects because it is possible that the high mean academic achievement or strong motivation among current teachers would decrease.	Relevant. Achievement test scores can be related to economic growth, but the follow-up period was short.
Project TNT (Project Towards No Tobacco Use)	Health	The program seeks to prevent adolescent tobacco use through education. Junior high schools were recruited and randomly assigned to one of four experimental groups or the control group. 1 and 2 year follow-up surveys were conducted, including saliva tests for tobacco use.	A total of 6716 seventh-grade students were included at baseline, while 7219 students were included in the 2 year follow-up. 35% of the students that went through the program were not included in the latter number, suggesting a relatively high attrition rate. In addition, randomizing by school weakens the results.	Initiation of cigarette smoking and smokeless tobacco use as well as weekly frequency of both were examined. The more rigorous treatments showed significant differences from control.	Evaluations were administered after two years. It seems that attrition effects make further studies difficult.	The authors do not specify the regions in which the programs were administered, so it is difficult to say if the results would generalize to other areas.	Somewhat relevant. Outcomes are important only insofar as they affect health and consumption, and the follow-up period is short.

Program	Category	Description	Sample	Outcomes	Follow-Up	Replicable	Relevance
Quantum Opportunity Program	Mentoring	QOP is an after-school mentoring program for high school students providing supplemental education, developmental activities, and community service activities. The program targets students with low grades when beginning high school or who are at risk of dropping out. The evaluation took place between 1995 and 2001.	The total sample was 1,100 students randomly assigned to either treatment or control group. Attrition was not an issue.	Outcome measures included a significant increase in the likelihood of graduation and enrolling in post-secondary education or training. Outcomes that showed no significant difference were grades, achievement test scores, and risky behaviors.	During the fourth and fifth years of the program. The authors note that the evaluation is incomplete since many of the students had not yet graduated.	Replicability is likely an issue because implementation practices varied significantly between sites. Also, actual participation in QOP activities varied among youths.	Relevant. Outcomes related to education yielded mixed significant results, and the follow-up duration did not extend beyond the end of the program.

Table 2 Continued.

Program Name	Description	Sample	Outcomes	Follow-Up	Replicable	Relevance
WIC	WIC, or the Special Supplemental Nutrition Program for Woman, Infants, and Children, provides vouchers for food and nutritional counseling. The study used data from the Pregnancy Risk Monitoring System on new mothers covered by Medicaid in 19 states, all of whom were eligible for WIC. They compare those who use WIC to those who do not in order to control for selectivity of the WIC user population.	60,731 observations from 19 states.	WIC participants were 6-7% more likely to use prenatal care in first trimester and were 2% less likely to have a child below the 25th percentile for gestational age if the child was premature or of low birth weight.	The follow-up measurement was at birth.	The data set is readily available so the study itself can be replicated.	The outcomes studied were limited. Also, the lack of data on when individuals began using WIC is problematic.
Georgia's Pre-K Program	Samples of three groups of children in Georgia were surveyed, including those in Georgia's Pre-K program, Head Start, and private preschool. Assignment to preschools was not random, and there was no comparison with children who did not go to preschool. Also, children from low income families in the Pre-K group were matched to children in the Head Start group for a separate comparison.	There were a total of 630 children included in the original sample, with 466 in the follow-up assessment. This implies an attrition rate of approximately 24%.	Children were assessed using tests of cognitive skill and language development. The Pre-K group caught up to privately schooled children and showed improvement beyond the Head Start group. The low income Pre-K group was significantly better prepared for kindergarten than the matched Head Start group.	The children were assessed upon entering kindergarten, directly after preschool.	The results here, although suggestive, may be difficult to replicate. The program design suggests possibilities for selection bias.	Somewhat relevant. The outcome measures are appropriate for economic growth analysis, but the short duration is a drawback.
School Breakfast Program	This is a program designed to improve the nutrition of low income, nutritionally needy children and indirectly enhance school performance. Free breakfast is provided to children in families below 130% of FPL and available at a subsidized rate to those in families up to 185% of FPL.	4,841 children ages 5-16 in NHANES III. The study consists of a difference in difference analysis using NHANES data, making use of fact that not all school districts offer SBP and it is not offered during the summer. Differences are across districts and seasons.	Outcomes include the Healthy Eating Index and nutritional status based on blood tests. SBP improves the quality of a child's diet, especially reducing fat intake and increasing fiber.	One time measure of diet and nutritional components via a blood sample.	The study can be replicated and the program is nationwide.	The short term nature of the study limits its relevance, as does the lack of any direct link to school performance or other more general measures of health.
National School Lunch Program	SLP provides school lunches free to school-age children in families below 130% of FPL and at reduced prices up to 185% of FPL. Schools are reimbursed for the cost of lunches, including a subsidy for all lunches. Nearly all public and the vast majority of private schools offer lunches under this program.	The School Nutrition Dietary Assessment Studies (SNDA) conducted in 1991 to 1992 and seven years later aim to assess the dietary effect of SLP. Data were collected from school cafeteria managers. A study using the Child Development Supplement of the PSID studies take-up and influence on child well-being (Dunifon and Kowalski-Jones,2003). They use a sample of siblings age 6-12 in which there are differences in participation. 32 children of 266 were in families in which one child participated and the other did not.	Outcomes include dietary intake, the composition of school lunches for the SNDA, and child behavior indicators for the CDS-PSID study.	Follow-ups were administered at irregular intervals. The source of information does not provide actual consumption or resulting dietary intake but rather the composition of lunches offered. CDS has been conducted twice and could serve as a source of data on the program, but there may be selection issues.	The program is nationwide. A more important question might be whether or not the program leads to actual improved nutrition compared to no "free lunch," and whether this results in better school performance. The CDS-PSID study finds no evidence of improvements in child well-being.	The limited outcomes and lack of a comparison group limits the value of the studies.

Program Name	Description	Sample	Outcomes	Follow-Up	Replicable	Relevance
Communities In Schools	The program assists students in staying in school and graduating from high school. Specifically, the population served is at risk of dropout. The youths were not randomly assigned, and there was no specific control group for comparison. Instead, the authors compared outcomes with national averages.	The authors studied 30 CIS programs in 17 communities nationwide. They evaluated 659 youths who participated in the CIS program.	Absenteeism, GPA, dropout rates, and behavior measures were included in the assessment. For most of these measures, CIS students showed improvement.	The study period was up to 3 years.	Replicability is likely to be problematic with this program. Specifically, the lack of fidelity between implementations and the potential for strong selection bias cast doubt on both replicability and the validity of the results.	Relevant. The outcomes include variables relevant to economic growth analysis, and the study period was reasonably long to capture effects.

Appendix One: Full list of Childhood Intervention Programs Reviewed by Category

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
WIC Supplemental Nutrition Program	WIC	Nationwide	60731	N, use logistic regressions with participation and outcomes as dependent variables, also try to account for selection	N	birth	pregnancy	NA	prenatal care, birth weight,	program to provide nutrition for low income women, infant, and children. Author measures negative selection on many characteristics from eligible group. Data from PRAMS
Houston PCDC	Home Visits	Houston, TX	E=90,C=201	Y	Y	1-3	3,4-7,8-11	<50%	IQ scores, behavior, achievement tests, graduation rates, special education,	home visits, part-day child care, center-based program for parents
IHDP	Home Visits	8 sites	E=377,C=608	Y	Y	0-1.5	3,5,8	<50%	IQ scores, behavior, general health, achievement tests, special education, grade repetition	home visits, full-day year-round center-based day care
Project CARE	Home Visits	North Carolina	E1=17,E2=25, C=23	Y	Y	0-5	4.5	<50%	IQ scores	home visits, full day year round day care for E1, home visits only for E2
HIPPY (Home Instruction Program for Preschool Youngsters)	Home Visits	NY, AR	E=84,C=98	Y	Y	3-5	K, 1st, 2nd	~20%	cognitive skills, classroom adaptation, standardized reading, school readiness	early preschool home intervention
Institute for Developmental Studies	Home Visits	?	E=312,191	Y	Y	4-9	7th	~75%	special education, grade retention	home visits, part-day preschool, parent center school
Philadelphia Project	Home Visits	Philadelphia	E=60,C=53	N	Y	4-5	post high school	~25%	achievement tests, special education, grade retention	home visits, part-day preschool program
Verbal Interaction Project	Home Visits	?	E=111,C=51	N	Y	2-4	3rd	~15%	achievement tests, special education, grade retention	home visits
Florida Parent Education Project	Home Visits	Florida	E=288,C=109	Partial	Y	0-2	4th-7th	~75%	achievement tests, special education, grade retention	home visits, twice weekly, age 2-3 years

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
Healthy Families America*	Home Visits	Hawaii	234	N	N	0-3	3 years later	NA	parent-child interaction, child development, maternal confidence in adult relationships, partner violence	family-based intervention to provide links to pediatric care, improved maternal parenting efficacy, etc.
Comprehensive Child Development Program	Home Visits		NA	NA	NA	NA	NA	NA	early childhood education, child and family health, parenting education, family economic self-sufficiency	case management and home visits. no significant effects found
Ypsilanti-Carnegie infant education project	Home Visits	Ypsilanti, MI	65	Y	Y	0-2	5 years later		no significant child outcomes	home visiting program designed to improve intellectual and educational attainment as well as child development
Gordon parent education infant and toddler program	Home Visits		583	Y	Y	0-3	11	83%	IQ test	this was a parent education project designed to improve long term child outcomes
Parent-Child Home Program	Home Visits	MA	209	Y	Y	2	15-20 years later	40-50%	dropout and graduation rates	home-based literacy focused mother-child interaction program
Nurse Family Partnership	Health/Home Visits	Elmira, Memphis, Denver	E1=166,E2=51 5,E3=230,E4=28	Y	Y	0	6	~20%	number and timing of subsequent pregnancies, months unemployed, welfare use, food stamps, educational achievement, behavioral problems, etc. www.nursefamilypartnership.org	looks at effects of prenatal and infancy nurse home visits to new mothers
Parents as Teachers	Health/Home Visits		667	Y	Y	0-8 months	1-2 years later	high	parenting knowledge and behaviors, parent-child interactions, child health care use,	home visits and group meetings to provide parenting education and developmental screening
Chicago CPC (Child-Parent Centers)	Preschool	Chicago, IL	E=1150,C=389	?	Y	3-9	9,10,11,14	<50%	school achievement, school adjustment, graduation rate, college credits, crime, earnings, public assistance, teen pregnancy	half-day preschool during school year. Also, kindergarten to 3rd grade programs
Perry Preschool Program	Preschool	Ypsilanti, MI	E=58,C=65	Y	Y	3-4	5-11,14,15,19,27	<50%	IQ scores, earnings, crime	Intense preschool treatment for children 4-5, also treatment for parents. Suggested higher earnings and lower crime.

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
Carolina Abecedarian	Preschool	North Carolina	E=57,C=54	Y	Y	0-8	8,12,15	<50%	IQ scores, achievement tests, graduation rate, special education	full-day preschool year-round, center based. Continuing parent program
Early Training Project	Preschool	Murfreesboro TN	E=44,C=21	Y	Y	4-5	6,7,8,10,16-20	<50%	achievement tests, graduation rate, special education, teen pregnancy	summer part-day preschool, home visits
Early Head Start Demonstration	Preschool	Nationwide	E=1531,C=1488	Y	Y	0-3	0-2 after enrollment	low	cognitive development, language development, social-emotional development, mother birth rates,	Home and center-based program to educate parents
Harlem Training Project	Preschool	?	E=244,C=68	N	Y	2-4	7th	~30%	achievement tests, grade retention	one-on-one tutoring or child directed play
Milwaukee Project	Preschool	Milwaukee, WI	E=20,C=20	?	Y	0-5	4th, 8th	low	achievement tests, grades, special education, grade retention	full day child care, job and academic training for mothers
Syracuse Preschool Program	Preschool	Syracuse, NY	E=108,C=108	N	Matched	pregnancy to 5 years	5,6,15	<50%	school achievement, crime	Support for disadvantaged children from prenatal care to age 5. Showed better achievement and lower crime.
Curriculum Comparison Study	Preschool	?	E=244,C=68	N	Post hoc comparison	4-6	post high school	~30%	special education, grade retention, graduation rate	part-day preschool and kindergarten program
Howard University Project	Preschool	?	E=38,C=69	N	Y	3-5	4th	low	grade retention	preschool program
Jumpstart	Preschool	Nationwide	E=1082,C=1338	N, children selected based on perceived potential benefit	comparison group	3-5	1 year later	low	modified High/Scopes assessment instrument	provides one-on-one and group interactions with trained college students to help prepare kids for school

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
Smart Start	Preschool	NC	E=39,C=272	N	comparison	0-5	end of program	NA	readiness for school, kindergarten teacher checklist	comprehensive public-private community-based initiative to help all North Carolina children enter school ready to succeed
Even Start	Preschool		NA	NA	NA	NA	NA	NA	NA	no significant differences between control and experimental
I Can Problem Solve (ICPS)	Preschool		219 divided into Y 4 groups		Y	Preschool	6 months		behavioral adjustment	program that helps young children's social skills
Head Start	Preschool	Nationwide	5000	N, diff-in-diff and matching	matched	3-5	NA	NA	grade repetition (no effect for black children)	nationwide pre-school program
Oklahoma's Pre K Program	Preschool	Oklahoma	NA	N, regression discontinuity	matched	4-5	NA	NA	cognitive skills, language development	universal preschool program. Discontinuity consists of kids just old enough to have made it into preschool a year earlier than those just young enough to miss it
Georgia's Pre K Program	Preschool	Georgia	630	partial	comparison between 3 programs	4-5	1 year later	26%	cognitive skills, language development	georgia has a universal preschool program. Study examined difference between georgia's program, Head Start and private preschools
KYB (Know Your Body)*	Health		E=485,C=620	Y	Y	4th	6 years later	~30%	cigarette smoking, saturated fat and carbohydrate intake	program to change behaviors in children to prevent cancer, namely smoking and diet
NCICAS (National Cooperative Inner-City Asthma Study)	Health	Nationwide, 7 locations	1033	Y	Y	5-11	1 year later	~10%	symptom-free days, cost per symptom-free day gained, annual cost of asthma morbidity	provided coordinated asthma care for low income inner-city children
Childhaven	Health	Seattle, WA	E=32,C=29	Y	Y	1-4	12 years later	~30%	behavior problems, arrest, violent delinquency, school discipline problems	therapeutic child care program for at-risk or maltreated infants or toddlers

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
Healthy Kids	Health	CA	1235	N, measured kids at 250% of poverty line (those ineligible for medicaid because they are illegal immigrants)	comparison group of kids just made eligible for the program	5-12	effectively 1 year	NA	unmet need, access to health care, use of health care	program that provides insurance to kids in families below 300% of poverty line but ineligible for medicaid
Project TNT (Project Towards No Tobacco Use)	Health		48 junior high schools	Y	Y	7th	2 years later	NA	smokeless tobacco use, cigarette use	school-based tobacco use prevention project
STARS for families (Start Taking Alcohol Risks Seriously)*	Health	NA	650	Y	Y	6th	2 years later	low	alcohol use initiation, alcohol use intensity	nurse consultation and parent prevention materials
Vermont Intervention Program	Health	Vermont	E=C1=C2=40	Y	Y	0	9	~25%	cognitive skills, school achievement	home and hospital sessions after birth to help mothers cope with low birth weight infants
C-CARE and CAST	Health	Pacific Northwest	E1=117,E2=103,C=121	Y	Y	14-19	9 months later	low	suicide risk behaviors, depression, drug abuse	school-based suicide prevention programs
Doula Support	Health	worldwide	range, 100-1300 women	Y	Y	birth	NA	NA	shorter labor, less analgesia, fewer c-sections	comparison of doula support of varying amounts, namely none, intermittent, and continuous
Get Real About AIDS	Health	CO	E=10 schools,C=7 schools	N	comparison group	high school	6 months later	NA	number of partners, contraceptive use	program to reduce risky sexual behavior and educate regarding HIV/AIDS
NIDCAP (Newborn Individualized Developmental Care and Assessment Program)	Health		E=124,C=131	Y	Y	0	1-2 years later	NA	developmental delay, physical indices	family based program to teach how to care for kids in NICU
Youth Suicide Prevention Programs - In Hospitals*	Health	SC	156	Y	Y	10-17	1 year later	NA	suicide rates, suicide related symptoms	reducing suicide in youth referred for emergency psychiatric hospitalization

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
Healthy Start	Health	Nationwide	NA	N	comparison sites selected for each demonstration	0	NA	NA	low birth weight, pre-term birth rate, etc.	program to reduce infant mortality and improve maternal and infant health
Home Visiting During Pregnancy and Early Childhood*	Health		E=65,C=71	Y	Y	0	6 months later	~10%	contraception knowledge, reduced adverse neonatal outcomes	postnatal home visiting service for teenage mothers
LEARN (Local Efforts to Address and Reduce Neglect)	Health	California	E=479,C=405	Y	Y	7 average	?	~40%	hunger, inappropriate hygiene, school absences	designed to reduce physical neglect of children, mostly via in-home assistance, results mostly not significant
Yale Child Welfare Research Program	Health	?	E=18,C=18	N	Partial	prenatal-2.5	7-10	low	achievement tests, attendance, special education	home visits, full day child care, pediatric care, developmental screenings
Focus on Kids	Health		E=206,C=177	Y	Y	9-15	12 months	none	no difference in any variable after 12 months	program to reduce HIV risk
System of Care/Wraparound	Health	NA	NA	NA	NA	NA	NA	NA	NA	found to have no significant improvements
Healthy Steps	Health	Nationwide	5565	6 sites random, 9 sites matching	some control, birth some comparison		during study, up to 3 years		satisfaction with care, increased probability of receiving care, parent practices	designed to enhance primary health care for young children
OB Access	Health	California	E=C=5244	N	matched	prenatal	birth	low	birthweight (low and very low)	prenatal care program primarily designed to reduce number of low birthweight babies
Brief Strategic Family Therapy (BSFT)	Health		79	Y	Y				socialized aggression and conduct disorder	family oriented program to reduce behavior problems and drug use

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
Asthma Intervention in Norfolk, VA	Health	VA	80	Y	Y	2-15	1 year later	low	ED visits, hospitalizations, health care charges	randomized trial to study health care and financial outcomes in medicaid-insured asthmatic children
National School Lunch Program	Health	Nationwide	4841	N, identified by comparison of months in school with months not in school via diff-in-diff	N	5-16	NA	NA	diet	school-based nutrition program, no significant results. Data from NHANES
School Breakfast Program	Health	Nationwide	4841	N, identified by comparison of months in school with months not in school via diff-in-diff	N	5-16	NA	NA	overall diet, calories from fat, magnesium, vitamin c, folate	school-based nutrition program. Data from NHANES
Tennessee Medicaid Influenza Study	Health	TN	194725 person-years	N, retrospective cohort study	N	1-15	NA	NA	cardiopulmonary disease, outpatient visits, antibiotic courses	observational study over 15 years to determine the effects of influenza on morbidity
Cold-adapted intranasal influenza vaccine	Health	NA	NA	N	N	NA	NA	NA	inpatient and outpatient visits	performed CBA to determine the savings from childhood vaccinations
CWPT (Class Wide Peer Tutoring)	School	NA	NA	NA	NA	K-8th	range	NA	standardized test scores, grades, spelling tests, focus, reading comprehension and vocab	school and home-based, consists of reciprocal peer tutoring, there have been over 30 evaluations of different sorts, I just provide overview here
Cooperative Integrated School Reading and Composition		MD	1299, E=31 classes, C=32 classes			2nd-6th	2 years later	NA	reading comprehension, vocab, reading awareness	program targeting reading, writing, and language arts
Teach for America	School	Chicago, L.A., Houston, New Orleans, Mississippi	1800 students, 100 classrooms	Y, students randomly assigned to TFA teacher and "control" teachers	Y	1st to 5th	same year	low	math achievement	program that recruits highly educated college grads to teach in low income areas
TN-STAR (Tenn. Student Teacher Achievement Ratio)	School	Tennessee	~11600 total	Y	Y	K	1st, 2nd, 3rd	~50%	standardized test scores	study of the effect of class size on test scores. Suggest that the initial positive results don't persist

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
Early Intervention in Reading	School		E=51,C=35	Y, by school	Y	K-4th	end of year	NA	reading skills	classroom based program for struggling readers
Learning, Earning, and School Parenting		Ohio		Y	Y	9th	10th, 11th, 12th		graduation rate, earnings, employment	Provided financial incentives to teenage parents to stay in school or take GED classes. Unclear long-term benefits.
Reading Recovery	School		403	Y	Y	1st	end of year	NA	diagnostic reading measures	designed to help struggling readers, many studies, I focus on one
Teenage Parenting Demonstration	School	Camden, Newark, Chicago		Y	Y	9th	10th, 11th, 12th		graduation rate, earnings, employment	Provided financial incentives to teenage parents to stay in school or take GED classes. Unclear long-term benefits.
Core Knowledge	School	MD,FL,TX,WA	E=4 schools,C=4 schools	N	Y, compared kids who started CK in 1st with kids who started CK in 3rd	1st-5th	during study	NA	standardized reading and math tests	educational reform model
Incredible Years	School	NA	E=51,C=48	Y	Y	2-8	NA	NA	parent-reported problem behaviors	designed to increase percentage of children exhibiting age appropriate behaviors
Peer-Assisted Learning Strategies	School	Southeast	E=36,C=36	Y	Y	4th-6th	end of year	low	readings skills	peer tutoring in math and reading, many studies of this program, so I focus on one
Project Vision	School	Florida	E=1738,C=800	N	matched	3rd-5th	up to 5 years later	NA	academic achievement	comprehensive school services offered to families
Reciprocal Teaching	School	NA	E1=22,E2=23,C=14	Y	Y	3rd-5th	end of program	low	reading skills	group effort between students and teachers for reading comprehension, many studies, I focus on one

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
Schools-Within-a-School	School	Chicago	143 programs	N	comparison		1 year later	NA	test scores, grades, course completion, attendance, graduation	large schools divide into smaller subunits with varying ages to enhance learning
Team Accelerated Instruction: Math	School	PA	12 classes	Y, students randomly assigned to each classroom	Y	3rd-5th	end of year	NA	no significant results found	incorporates cooperative learning and individualized instruction in math education, focusing on one study
Partners in Reading	School	Carolinas	E1=54,E2=62, C=58	N	comparison, but with higher reading skills	1st-2nd	end of 2nd	high	reading skills	school-based tutoring program for beginner readers
Second Step Violence Prevention	School	WA	E=418,C=372	Y, by school	Y	2nd-3rd	6 months later		no significant results found	teaches social skills to reduce impulsive and aggressive behavior in children and increase their level of social competence, many studies, I focus on one
Behavioral Monitoring and Reinforcement Program	School		66	Y	Y	high school	2 and 5 years	low	delinquency	designed to improve behavioral outcomes of students
Linking the Interests of School Families and Teachers (LIFT)			600	Y	Y	1st and 5th	3 years later		physical aggression, aversive behaviors, positive social skills	school based intervention to prevent conduct problems
Preventive Treatment Program (PTP)	School	Montreal	E1=46,E2=84, E3=42	Y	Y	6-8	0 to 2 years after treatment ended	low	no significant teacher reporting differences	designed to improve behavioral outcomes for primary school aged boys
School Transitional Environmental Program (STEP)	School		E=C=77	Y	Y	9th	end of 9th	low	grades, class rank, course failures, absenteeism	reduces school complexity and reorganizes structure of homeroom in order to reduce student stress
CIS (Communities in School)	School	Nationwide	30 schools	N	N, compared to national averages			NA	school attendance, performance, dropout rates, graduation	program to help adolescents stay in school and graduate

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
Greentree School	spec ed	PA.	60 early intervention, 50 serious emotional disturbance, 18 ASD		n	3-21		no	success in terms of own IEP includes behavior, communication, self help, academics	children referred by home school districts: students with developmental delays (ages 3-5) and students with either serious emotional disturbances or ASD. Includes IEP and wrap around services
Making Proud Choices	Health/Pregnancy Prevention	Philadelphia	E=218, C=214	Y	Y	6th-7th	12 months	7%	contraception use, frequency of sexual activity	similar to making proud choices by stressing abstinence, but emphasized contraception, too
Be Proud! Be Responsible!	Health/Pregnancy Prevention	Philadelphia	E=85, C=72	Y	Y	10th-12th	3 months later	4%	self-reported HIV knowledge, intentions to engage in risky behavior, days of sexual activity, partners, contraception	program to reduce risky sexual behavior and educate regarding HIV/AIDS
Becoming a Responsible Teen	Health/Pregnancy Prevention	MS	246	Y	Y	14-18	12 months	NA	first-time sexual activity, contraception, frequency of sexual activity	program for HIV/AIDS and pregnancy prevention
My Choice, My Future	Health/Pregnancy Prevention	Powhatan, VA	E=348, C=203	Y	Y	8th	1 year later	9%	knowledge of pregnancy and std risks, peer relations, risk-avoidance skills, abstinence pledge, etc.	abstinence program...3 years of classroom based curricula
Reach for Health Community Youth Service	Health/Pregnancy Prevention	NY	255	Y	Y	7th	10th	~25%	sexual initiation	middle school service learning intervention to reduce sexual initiation
Self Center (School-Linked Reproductive Health Services)	Health/Pregnancy Prevention	MD	E=1700, C=1950	N	comparison schools	7th-12th	end of program	NA	delay sexual activity, contraception	established to provide year-round contraceptive and reproductive health services and education to middle and high school students
Washington State Department of Health/Client Centered Programs	Health/Pregnancy Prevention	WA	E=100-150 per project, C=100-150 per project	Y	Y	11-17	2 years later	NA	sexual behavior, contraceptive use,	client-centered approach to reducing teen pregnancy
Draw the Line/Respect the Line	Health/Pregnancy Prevention	Northern California	2829	Y	Y	6th-8th	throughout program	36%	first-time sexual activity	program designed to delay first-time sexual activity, contraception

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
Making a Difference	Health/Pregnancy Prevention	Philadelphia	215	Y	Y	6th-7th	3,12 months later	NA	first-time sexual activity, contraception	abstinence only program for preventing HIV, STDs, and pregnancy. Similar to Be Proud, Be Responsible, but with abstinence only
Families United to Prevent Teen Pregnancy	Health/Pregnancy Prevention	Milwaukee, WI	E=326,C=178	Y	Y	3rd-8th	1 year later	9%	abstinence pledge, etc.	abstinence program...up to 4 years of classroom based curricula delivered in after-school program, also parenting education and support
McMaster Teen Program	Health/Pregnancy Prevention	Ontario	E=2111,C=1263	Y	Y	7th-8th	1,4 years later	NA	contraception use, difference after one year, but no difference after 4	designed to delay first-time sexual activity and prevent pregnancy
Project Taking Charge	Health/Pregnancy Prevention	DE,MS	E=52,C=39	N	Comparison	7th	6 months later	low	knowledge retention, initiation of sexual activity	
Recapturing the Vision	Health/Pregnancy Prevention	Miami, FL	E=338,C=260	Y	Y	6th-8th	1 year later	9%	risk-avoidance skills, abstinence pledge, etc.	abstinence program...one year of classroom based curricula with supplemental program for families
Reducing the Risk Program	Health/Pregnancy Prevention	southern rural location	E=267,C=265	partial	comparison		18 months later	~58%	delay sexual activity, contraception, parent-child communication	sex education program
School-Based Clinics for Pregnancy Prevention	Health/Pregnancy Prevention		6 schools	N	comparison	high school	NA	NA	sexual activity, pregnancy, contraceptive use	measurement of school-based clinics in their effect on sexual behavior and contraceptive use
Teens In Control	Health/Pregnancy Prevention	Clarksdale, MS	E=450,C=399	Y	Y	5th	1 year later	10%	knowledge of pregnancy and std risks, risk-avoidance skills, etc.	abstinence program...2 years of classroom based curricula
Postponing Sexual Involvement Program	Health/Pregnancy Prevention	California	10600	Y	Y	NA	NA	NA	no significant results found	measured curriculum designed to delay the onset of sexual activity

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
PSI, Human Sexuality and Health Screening	Health/Pregnancy Prevention	DC	E=262,C=260	Y	Y	7th-8th	throughout program	NA	first-time sexual activity, but no differences after 8th grade	school-based program to delay first-time sexual activity, and contraception use
Children's Aid Society Carrera Project	After School/School/Health	New York	E=300,C=300	Y	Y	13-15	3 years later	~20%	pregnancy rate, lower sexual activity, increased contraception, increased health care use	year round after school counseling program
Girls Inc.	After School	AL,FL,SD,MA	E=152,C=202	Y	Y	11-14	6 months later	high	alcohol abuse, other substances	provides encouragement for success to girls, also for substance abuse prevention
21st Century Community Learning Centers	After School	inner city and rural	5500	Mixed	comparison	elementary and middle schools	1 year later	NA	classroom effort, grades, parental involvement	after school program for homework help and general community assistance
Maryland After School Community Grant Program	After School	MD	E=417,C=408	mixed	Y	4th-8th	upon program completion	NA	GPA, attendance, delinquency	program to prevent substance abuse, violence, and delinquency
Memphis City Schools extended day tutoring program	After School	Memphis	E=328,C=328	mixed	Y	1st-4th	Upon program end		standardized reading test scores, grades 2,3,4	
Teach Baltimore	After School	Baltimore	E=293,C=135	Y	Y	K-1st	upon program completion	NA	only a difference for high achieving students	summer program to maintain reading ability of elementary school kids
Cooke Middle School After School Recreation	After School	Philadelphia	E=124,C=98	Partial	Y	10-15	1year later	low	homework time, attendance	program designed to promote fitness, exercise, well-being, social skills
Gevirtz Homework Project	After School	Santa Barbara	E=74,C=72	Y	Y	4th	throughout program, up to 3 years	39%	effort, school functioning	program to provide homework and study skills

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
Louisiana State Youth Opportunities Unlimited	After School	LSU	E=105,C=105	Y	Y	14-16	upon program completion	NA	achievement scores	after school program for dropout prevention
San Francisco Beacons Initiative	After School	San Francisco	NA	N	comparison	middle and high school	18 months later	20%	absences, self-reported effort	after school program
Summer Career Exploration Program	After School	PA,NJ	E=1157,C=551	Y	Y	10th-12th	1 year later	11%	college prep enrollment	summer jobs program
Extended-Service Schools Initiative	After School	six cities	1708	N	comparison	middle school	1 year later	high	alertness in class	after school program
Go Grrrls	After School	Tucson	118	Y	Y	middle school	upon program completion	NA	body image, hopelessness	focused on the positive development of middle school girls' psychosocial development
Hispanic After School Program	After School	semi-rural MA town	E=30,C=25	Y	Y	K-6th	upon program completion	high	maladaptive behaviors/self-esteem	promotes school adjustment to Puerto Rican children
The After-School Corporation	After School	New York	NA	N	comparison	middle and high school	3 years later	NA	attendance	after school program
School Voucher Programs	Housing Assistance	Chicago, IL	Chicago Public Schools	N	N	9th	10th, 11th, 12th	NA	high school dropout and graduation rates	increased choice may yield better schooling outcomes. May affect growth
Across Ages	Mentor	Philadelphia	E=189,C1=193 ,C2=180	Random across classes	Y	6th	upon program completion	23%	school attendance, well-being, substance abuse	older adult mentors (over 55) for youth

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
Fast Track	Mental Health	NA	E=445,C=446	Y, randomized by school	Y	K	4th-5th	low	social competence and cognition, peer deviance, conduct problem behavior	multicomponent program for children with early-onset conduct problems. Continues from K-12, high school results not yet in in home and community
CBITS (Cognitive Behavioral Intervention for Trauma in Schools)	Mental Health	Los Angeles	E=67,C=46	Y	Y	6th-9th	3 months later	low	depressive symptoms and scores, PTSD symptoms and scores	group intervention program to relieve symptoms of PTSD, depression, general anxiety among kids exposed to trauma
PPP (Positive Parenting Program)	Mental Health	Norway	305	Y	Y	3	1 year later	20%	parent-reported child disruptive behavior, levels of dysfunctional parenting, parental competence, higher consumer satisfaction	family intervention based on social learning principles to assist children with conduct problems
Adolescent Transitions Project	Mental Health	NA	999	Y	Y	adolescents	within 1 year later	high	antisocial behavior, parent-child conflict, substance abuse	program to reduce behavior problems among high risk adolescents
Multi-Systemic Therapy*	Mental Health		E=62,C=38	Y	Y	12-17	6 months later	low	internalizing and externalizing behavior, out-of-home placements, social competence, family satisfaction	home and community based treatment for kids with antisocial behavior and other clinical disorders
Univ of Maryland School Mental Health Program	Mental Health	Maryland	NA	N	NA	K-12th	NA	NA	NA	program that provides evaluation, treatment, case management, and prevention. There is no study per se, only non-comparison surveys of clinicians, and a focus group of parents and kids for QA
Washington Aggression Replacement Training	Juvenile Justice	WA	E=704,C=525	Y	Y	juvenile	18 months later	low	felony recidivism	10 week, 30 hour training for juvenile offenders
Washington Functional Family Therapy	Juvenile Justice	WA	E=387,C=313	Y	Y	juvenile	6,12,18 months later	low	felony recidivism	family-based treatment of juvenile delinquents to reduce recidivism. www.fffinc.com
Aggression Replacement Training*	Juvenile Justice	NA	E=704,C=525	Y	Y	juvenile	18 months later	NA	recidivism	www.aggressionreplacementtraining.org , www.fffinc.com program to help control impulsive and inappropriate behaviors

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
Functional Family Therapy*	Juvenile Justice	Southeastern Ohio	E=27,C=27	N	comparison	15 mean	5 years	~15%	offenses committed	family-based treatment of juvenile delinquents to reduce recidivism. www.fffinc.com
GREAT (Gang Resistance Education and Training)	Juvenile Justice	Nationwide	5935	N	comparison	7th	1 year later	NA	self-reported gang activity, confidence in school, etc.	program to reduce gang activity and adolescent violent behavior
Juvenile Offender Sex Offender Treatment*	Juvenile Justice		E=58,C=90	N	Y	adolescent	2-10 years later	?	sexual, violent nonsexual, and nonviolent recidivism	community-based treatment to reduce sexual and nonsexual recidivism
Resolving Conflict Creatively Program	Juvenile Justice	New York	11000	N	comparison groups	1st-6th	throughout program, up to 6 years	NA	aggression and aggressive behavior	school-based program to promote constructive conflict resolution to reduce violence
Juvenile Intensive Parole Supervision	Juvenile Justice		E=115,C=115	N	Y	juvenile	90 days later	low	parole failure, drug abuse, behavior, living skills	program administered to parolees on exit from prison
Juvenile Boot Camp*	Juvenile Justice			N	Comparison with other program				recidivism	school program to help reduce recidivism among juveniles. Found to have little effect
Juvenile Offender Interagency Coordination*	Juvenile Justice		141	?	Y				recidivism	no conclusive results
Family Matters	Substance Abuse		E=531,C=604	Y	Y	12-14	3 months, 12 months	~18%	adolescent drinking and smoking	program that mails booklets and conducts phone calls by health educators. Hopes to reduce prevalent of adolescent cigarette smoking and drinking
Good Behavior Game	Substance Abuse		E1=352,E2=348,E3=904	Y	Y	1st	5-10 years later	~30%	smoking initiation reduced for boys	studied effects of intervention with respect to classroom behavior on incidence of smoking

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
Guiding Good Choices (formerly PDFY)*	Substance Abuse		E=221,C=208	Y	Y	11 (mean)	1,2,3,5 years later	~30%	substance abuse, delinquency	family-focused intervention to prevent/slow drug use trajectory
Life Skills Training (LST)*	Substance Abuse		1954	Y	Y	3rd-6th	3 months later	~40%	smoking, alcohol, anti-drinking attitudes, substance use knowledge, self-esteem	program to prevent tobacco and alcohol use among children in grades 3 to 6. www.lifeskillstraining.com
Strengthening Families Program for Youth 10-14 (known as ISFP)	Substance Abuse	Midwest, rural	E1=238,E2=221,C=208	Y	Y	6th	10th	33%	new user proportions, drunkenness, marijuana use	family focused interventions affecting adolescent outcomes, in terms of substance abuse
Woodrock Youth Development Project	Substance Abuse	Philadelphia	E=130,C=239	Y, across classrooms	Y	middle school	end of school year	13%	attendance, drug use	after school program to reduce substance abuse
Child Development Project	Substance Abuse	Nationwide	E=12 schools, C=12 schools	N	matched comparison group	1st-6th	end of elementary school	NA	drug use, delinquency	school program to "reduce risk and bolster protective factors among children"
CMCA	Substance Abuse	MN, WI	E=7,C=8 (school districts)	Y	Y	NA	annually, for 9 years	NA	arrests, car crashes, previous work on youth access to alcohol	community-based effort to reduce youth access to alcohol
Creating Lasting Family Connections	Substance Abuse	NA	E=59,C=61	Y	Y	12-14	6 months later	high	alcohol/drug use onset, alcohol/drug use	program to reduce substance abuse by increasing family resiliency and community connections
TND	Substance Abuse		18 schools	Y	Y	high school	2 years later	NA	no difference for self-instruction, but some effects for health-educator version	health-educator led and self-instruction programs to reduce drug use for kids at risk of dropout
Project Northland	Substance Abuse	MN	24 schools	N	comparison group	6th to 8th	8th	NA	alcohol and tobacco use, psychological factors	program to reduce alcohol use

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
Project ALERT (Adolescent Learning Exp. In Resistance Training)	Substance Abuse	CA,OR	30 schools	Y	Y	7th and 8th	9th	NA	any effect disappeared at grade 9	grade 7&8 program to curb marijuana and cigarette use
Job Corps	Job Training	Nationwide	11313	Y	Y	16-24	4 years later	~20%	graduation rate, college enrollment, earnings, crime	Job training program, shows disappointing results.
Career Academies	Job Training		E=1500,C=150 0	Y	Y	high school	4 years later	<20%	wages (only significant for men)	combine academic and technical curricula around a career theme
JTPA	Job Training						30 months later			Job training program. Not much evidence of worthwhile intervention
Cleveland Works	Job Training	Cleveland	E=580,C=407	N			3 years later	NA	employment, earnings	education, pre-employment, and vocational skills training
Career Academies	Job Training	Nationwide	1700	Y	Y	high school	up to 4 years later	high	graduation rate	integrated school program featuring career or technical courses and employer partnerships
New Hope Program	Job Training	Milwaukee, WI	E=680,C=680	Y	Y	18 or older	2 years later	NA	employment, earnings	program aimed at reducing poverty and improving financial security

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
New Chance	Health/Other	Nationwide	E=1401,C=678	Y	Y	mean 19	42 months later	NA	outcomes not large, educational attainment, child health care use	designed to provide comprehensive training and education to teenage mothers who are high school dropouts
Parent-Child Interaction Therapy	Health/Other		110	Y	Y	4-12	2 years later	low	re-report of physical abuse	program for reducing reports of child abuse by parents
ATLAS (Athletes Training and Learning to Avoid Steroids)	Health/Substance Abuse	WA,OR	31 schools, 2516 athletes			15-16	10 months later	23%	intent to use steroids, improved sports nutrition behaviors, knowledge of steroid abuse, alcohol and drug abuse	drug prevention and health promotion program for male athletes
Youth AIDS Prevention Program (YAPP)	Health/Substance Abuse	Chicago	E=1459,C=933	Y	Y	7th-8th	2 years later	44%	contraception, sexual activity	school classes for seventh graders to prevent STDs and substance abuse
MSPP (Minnesota Smoking Prevention Program)	Health/Substance Abuse	ND,MN	cross-sectional each year, baseline 2401	N	comparison community	6th-12th	during study	NA	weekly smoking, intensity of smoking	school-based intervention to prevent cigarette smoking, with ultimate prevention of heart disease in mind
Big Brother/Big Sister	Mentor/After School	Many states	1107	Y	Y	10-16	18 months later	<20%	drugs, alcohol, violence, relationships	General mentorship. In Tierney study, found positive social outcomes.
Quantum Opportunity Program	Mentor/After School			Y	Y	9th	10th, 11th, 12th	low	graduation rate, arrest rates, college enrollment, full-time employment	Provided counseling and financial incentives to improve market and social skills. Results showed higher graduation rate and lower crime rate.
Maryland's Tomorrow Program	Mentor/After School					9th	10th, 11th, 12th		graduation rate, standardized test	Summer jobs and academic guidance for a full year. Showed benefits in terms of delaying dropout, earnings.
Philadelphia Futures' Sponsor-a-Scholar	Mentor/After School	Philadelphia			Matched	9th	10th, 11th, 12th		GPA, college attendance	Specifically designed to increase college attendance. Johnson finds increased GPA and college attendance.

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
Howard Street Tutoring Program	Mentor/After School	Chicago	E=17,C=17	Y	Y	2nd-3rd	1-2 years later	high	reading achievement measures	provides one-on-one reading tutoring
Children at Risk	Mentor/Health	Texas, Conn, TN, GA, WA	E=338,C=333	Y	Y	11-13	1 year later	low	antisocial behavior, crime, drug use and dealing	drug and delinquency prevention program targeting high risk adolescents
Adolescent Sibling Pregnancy Prevention Project	Mentor/Health	California	E=1011,C=583	N	Comparison not in program	11-17	9 months later	~20%	pregnancy rate, school truancy, contraceptive use	mentoring, counseling and education to groups at risk for high pregnancy rates
All Stars	Mentor/Health	Louisville, KY	1857	Y	Y	11-13	one year, I think	?	substance abuse, sexual activity	2 levels of treatment: administration by teachers, and by outside specialists. Specialists found to have no effect
D.A.R.E.*	Mentor/Health	Midwest	1429	NA	NA	6th-10th	10 years later	~30%	drug use, drug attitudes, self-esteem	no significant differences between control and experimental
Multidimensional Treatment Foster Care	Other		E=37,C=42	Y	comparison group	15 mean	1 year later	low	criminal offending, incarceration rates	comparison of multidimensional treatment foster care with group care
FAST (Families and Schools Together)	Other	New Orleans	E=207,C=200	Y	Y	2nd-4th	1 year later	low	child behavior problems	8 week family support program to prevent school failure, delinquency, and substance abuse. There are apparently other experimental studies underway: www.ucer.wisc.edu/fast/
Midwest Evaluation of the Adult Functioning of Former Foster Youth	Other	IA,IL,WI	E=282,C=321	N	comparison	17-18	2 years later	18%	educational deficits, mental health problems, economic insecurity, victimization, early child-bearing	study of difference between foster kids still in care and those already discharged
Teen Outreach Program	Other		E=1673,C=160	partial	comparison	9th-12th	12th	~8%	pregnancy, course failure, school suspension	program mostly to involve kids in their community through volunteering

Program	Category	Locations	Sample	Random	Control	Age	Follow-Up	Attrition	Outcomes	Notes
ECEAP (Early Childhood Education and Assistance Program)	Other	WA	E=1358,C=322	N	comparison with eligible, but not treated group	3-5	8 year longitudinal study	NA	family poverty level	family based program to promote healthy development and success of low-income children
Seattle Social Development Project	Other	WA	605	N	Y	1st to 6th	9 years later	low	school and work functioning, but not significant effects in mental health and crime	project to promote positive adult functioning with prevention of mental health problems, crime, etc.
Family Preservation Services*	Other	Missouri	E=224,C=154	Partial	Comparison not in program	7-10	NA	NA	length of stay in out of home care, placement recidivism	Family-Centered Out of Home Care, studying time of out of home care necessary for foster kids, found mixed results
Project 12 Ways	Other	NA	E=232,C=232	N	matched	NA	post-treatment	low	abuse, neglect, adoption	in-home ecobehavioral treatment to families for child abuse and neglect
Family Group Conferences	Other	Sweden	E=97,C=142	Y	Y	NA	NA	NA	NA	no significant differences between control and experimental
Family to Family	Other		NA	NA	NA	NA	NA	NA	NA	difficult to find relevant information. Not clear how results were obtained
Iowa Family Development and Self Sufficiency Program	Other		1700	Y	Y	NA	NA	NA	welfare participation, employment and earnings, child abuse	found little or no effect on any of the outcomes
Siblings of Children With Developmental Disabilities	Other	East coast inner city	180	Y	Y	mean 11	upon program completion	low	socioemotional adjustment, sibling-related stress	assists children who have siblings with disabilities
Accelerated Schools Program	Other	Nationwide	8 schools	N, diff-in-diff	matched		NA	NA	math and reading test scores	designed to change school culture to set higher expectations for students and teachers

