

Hispanic Students with Learning Disabilities:
Achieving National Education Goal Two

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ABSTRACT

One of seven national education goals is that by the year 2000, the high school graduation rate will increase to at least 90 percent (National Education Goals Panel, 1996, p. 10). A subordinate national goal is that the gap in high school graduation rates between students from minority backgrounds and their non-minority counterparts will be eliminated (National Education Goals Panel, 1996, p. 10).

Using a case study approach, this paper highlights and discusses the challenges and rewards of achieving these national education goals for students with disabilities. Low-income Hispanic youth with learning disabilities constitute the target population of this four year case study. Based upon a review of the empirical literature, a comprehensive multi context intervention was designed and implemented in one targeted junior high school. An empirical evaluation of the intervention demonstrated dramatic short and intermediate term effects for reducing school dropout and increasing school success. Long-term effects of the intervention were mixed and serve to illuminate the challenges of narrowing the gap of minority school completion and for achieving a national reduction of high school drop out for students with learning disabilities. Results are discussed in terms of recommendations emanating from this four year case study.

The General Problem of School Drop Out

One of the most socially significant contemporary problems facing the United States is that of school drop out. There are tremendous economic and social repercussions for society if youth fail to complete high school. Dropouts as adults are estimated to have poorer levels of health, reduced intergenerational mobility and reduced

political participation and empowerment (Levin, 1972; Rumberger, 1986). Dropouts experience higher rates of unemployment (Rumberger, 1987; Vice President's Task Force on Youth Employment, 1980), receive lower earnings (Grossnickle, 1986), experience limited cognitive growth (Pallas, 1987), and are more likely to require welfare and engage in criminal activity over their entire lifetimes than high school graduates (Rumberger, 1987; Stern and Paik, 1989).

The urgency of addressing the school drop out problem was recognized by the President and the nation's governors when they adopted the following as one of seven National Goals of Education: "By the year 2000, the high school graduation rate will increase to at least 90 percent" (National Education Goals Panel, 1996, p. 10). A subordinate goal of National Education Goal Two is: "The gap in high school graduation rates between American students from minority backgrounds and their non-minority counterparts will be eliminated." (National Education Goals Panel, 1996, p. 10). This subordinate goal is critically important because the educational attainment gap between minority and White students remains large.

In 1994, the percent of high school dropout among persons 16 to 24 years old was 30 percent for Hispanics, 13 percent for Blacks and 8 percent for Whites (McMillen & Kaufman, 1994). Other data from the National Goals Report (National Education Goals Panel, 1996) show a 26 percentage point difference between Whites and Hispanics and a 10 percentage point difference between Whites and African Americans in terms of high school completion rates. Nor has the school completion gap improved in the last ten years when, according to one study, in 1984 Blacks were 4 1/2 percentage points and Hispanics were 29 percentage points behind Whites and in 1994 Blacks were 5

percentage points and Hispanics were 30 percentage points behind Whites (Snyder & Hoffman, 1995).

As one can see, the objective to narrow the gap between white and minority student achievement makes dropout in the Hispanic population of particular concern because Hispanics have the highest dropout rate among the major ethnic groups in the U.S. Moreover, although dropout rates are declining in general (Smith, 1995), trends in high school completion between 1990 and 1995 show a rise for all race and ethnic groups *except* Hispanics (Day and Curry, 1996). Taken together, these statistics are particularly troubling given that the Hispanic population is one of the fastest growing populations in the U.S. (Smith, 1995). One estimate shows that between 1985 and 2020, the number of Hispanic youth will increase by 65% (Rumberger, 1990, Table 2). By the year 2010, about 24% of the nation's school children will be Hispanic (Digest of Educational Statistics, 1986). California currently enrolls nearly one and a half million Hispanic students each year. This is more children than forty other states individually enroll of all races! (World Almanac, 1990). Hispanics are heavily represented in other states as well: Colorado; Arizona; New Mexico; and Texas.

The Specific Problem

Studies comparing general education with special education drop out rates report a greater rate for drop out of students with disabilities than those without. Marder and D'Amico (1992) report a 32 percent drop out rate for students without disabilities compared to a 41 percent drop out rate for students with disabilities; Wagner and colleagues (1992) report 21 percent compared to 37 percent and McMillen, Kaufmen, Hausken and Bradby (1993) report 10 percent compared to 20 percent. There have been

numerous other studies documenting that youth with disabilities have greater drop out rates than non-disabled youth. For example, it has been reported that drop out rates in New York are 23% for sp. ed. and 13% for reg. ed; in Chicago, 65% sp.ed. and 43% reg. ed., in Miami, 40% sp. ed. and 30% reg. ed. and in Pittsburgh, 54% sp.ed and 33% reg.ed. (reviewed in Wolman, Bruininks, Thurlow, 1989).

Just as in the nondisabled population, consequences for dropping out of school are severe for youth with disabilities. A commissioned study, the National Longitudinal Transition Study (NLTS, 1992), shows that dropping out of school puts disabled youth at far greater risk for negative life outcomes. Dropouts with disabilities report twice the isolation rate than do graduates with disabilities 3-5 years after high school. They are more likely than graduate peers to be living with their parents 3-5 years post high school. Dropouts with disabilities are far more likely 3-5 year post high school to be unemployed than are graduates with disabilities (53% versus 35%) and dropouts with disabilities are less likely to be part-time employed (9% versus 16%) or full time employed (38% versus 48%) than are graduates with disabilities.

Early parenthood is also significantly related to aging out or dropping out of school in both female and male youth with disabilities. In age out/dropout females, 68% become young parents, in age out/dropout males, 36% become young parents compared to 38% of graduate females and 13% of graduate males.

Findings from the NLTS data correlate with other research comparing LD dropouts and LD graduates. The other research shows that dropouts report more negative relationships with peers, lower scores and grades, a less positive attitude toward school,

more arrests and more disruptive school behavior (Hewitt, 1981; Levin, Zigmond and Birch, 1985).

According to the NLTS, by far, the largest group of students with disabilities who do not graduate from high school are youth with learning disabilities. This is because students with learning disabilities constitute the largest group of students in special education and because they have such a high rate of drop out - 36 percent compared to the special education average dropout rate of 21 percent (Wagner et al., 1992).

Just as in the general population, Hispanic youth with disabilities do more poorly in school than Anglo or African American youth with disabilities. The NLTS found that 34% of Hispanic students with disabilities drop out of school which is a significantly greater rate than the 25% drop out rate of Anglo youth with disabilities. Moreover, in a separate analysis of the NLTS data, Wagner, Blackerbee, and Hebbler, (1993) report that failing classes is significantly related to a student with disabilities being Hispanic. These authors report that controlling for poverty, disability category, parent involvement and gender, Hispanic students with disabilities fail 16% more classes in grade nine and 14% more in grade eleven than Anglo students with disabilities.

Purpose of the Study

Statistics suggest that Hispanic youth constitute a unique group. This uniqueness is supported by a number of studies. For example, Veltman (1976) found that with the *exception* of Spanish-speaking Hispanics, minority language background per se did not reduce educational attainment. Family educational levels also seems to have a more significant impact on educational performance of Hispanic children than on other ethnic or racial groups (Casas and Furlong, 1986). Others have documented that Hispanic

parents are less involved than other groups in their child's education (Casas, 1984). And lastly, Sternberg, Greenberger, Garduque and McAuliffe (1982) found that when factors related to school dropout such as (1) many children in the home, (2) lack of reading materials and (3) single parent home were controlled, Hispanic students still showed a drop out rate far in excess of white or blacks students.

As a case study providing insight into the challenges and payoffs of National Education Goal Two, this paper describes and evaluates one dropout prevention program designed to increase the high school achievement and school completion rates of low-income Hispanic youth with learning disabilities and, thereby, narrow the gap between Hispanic and White youth. For, if educational attainment for *all* children is to be achieved, there seems no better place to start than by focusing on children who are at greatest risk for school dropout - Hispanic youth with learning disabilities living in poverty.

Addressing the Problem

The Causes of School Drop Out

Drop out has historically been construed as a form of social deviance and the explanation of this deviant action is sought in the characteristics distinctive to the dropout group. Typically the construction of the problem has been to identify the dropout and his/her personal deficiencies or home background as the sole or primary cause of failure to complete school. (see Wehlage and Rutter, 1986 for review). The implicit programmatic implications of this perspective is that it is the *student* who must change to fit the school.

However, several studies have shown that student ability and race alone do not account for school dropout. For example, in special education it is not the most "severely" handicapped students who dropout. Thornton, Morrow and Zigmond (1989) found that achievement levels did not differentiate LD students who dropped out from those who stayed. In a group of lowest-achieving Hispanic youth, Larson (1989b) found that achievement level accounted for almost none of the variance in truancy, attendance, misbehavior or school grades. Alpert and Dunham, 1986, found that not all high-risk youth with a GPA below 1.0 thought they were unsuccessful in school. Some of these students had many friends, got along with teachers and attended extracurricular activities and rated themselves as successful in school despite their low GPA. The point is that there are other factors over and beyond student characteristics which influence dropout behavior. Recognizing this, a more complex picture of drop out has emerged.

A counter line of research looking beyond student variables has been developed. Re-analysis of the High School and Beyond data (HS and B) and recent models of human development and educational achievement have produced a more complex and balanced picture of school drop out (e.g., Ekstrom, Goertz, Pollack, & Rock, 1986; Fine, 1986; Wehlage & Rutter, 1986). The picture that has emerged is that the *combined* influence of the students own characteristics interacting with the influence of family, of school and of community determine whether a student will drop out or graduate. The critical importance of these multiple contexts has been highlighted in a special issue of the American Psychologist, February 1993, as well as by the National Center for Research on Cultural Diversity and Second Language Learning (1993) and in the 1993 National Research Council book on adolescents. Within these contexts, of course, are the

influence of school resources, policies and programs; the influences of family configuration, income, education, and functionality as well as the influence of the neighborhood, peers, health and mental health resources, the juvenile justice system and the resources for transition into the world of work.

Dropping Out: A Student, Family, School and Community Problem

The first challenge when addressing National Education Goal Two is to hypothesize the components of an effective dropout prevention program for Hispanic LD youth, most of whom live in poverty. The strongest and most rational approach to this challenge is to turn to empirical literature to identify *causes* of school dropout and poor achievement and then to use this information to determine *prevention* of drop out and failure. This was the approach taken in the case study reported here. A brief review of this literature follows.

Ineffective social problem solving skills. Social problem solving skills have been consistently reported as problematic for low-achieving and youth with disabilities (Elias & Clabby, 1992). School behavior problems are shown to be clearly related to special education referral and placement (Shepard & Smith, 1983; Kavale, Alper & Purcell, 1981). School behavior problems are shown to be clearly related to dropout and low grades (McMillen & Kaufman, 1994; Wehlage, Rutter, Smith, Lesko & Fernandez, 1989). Low-achieving high-risk "stayers" have been distinguished from dropouts primarily on the basis of degree of misbehavior in school (Alpert & Dunham, 1986; Rumberger, 1995; Rumberger and Larson, 1997). Indeed, behavior problems are found to correlate with school failure over and above IQ and academic achievement (Craig,

Kaskowitz & Malgoire, 1978; Ysseldyke, Algozzine, Shinn and McGue, 1982; Rumberger, 1995).

Addressing the issue of social behavior is crucial in a dropout prevention program because it is this student characteristic which most disturbs teachers and school staff (Larson, Laser, & Gao, in prep). In several recent studies, Larson (1989a, 1989b) found that lowest-achieving Hispanic junior high students had four times the rate of classroom expulsions than other Hispanic students. Indeed, projections of her figures showed that the lowest-quartile subgroup of students ($n = 500$) in the urban Hispanic school would have generated nearly 25,000 disciplinary contacts during seventh and eighth grades! Larson concluded that this disproportionate use of staff time for disciplinary events for a minority of students was a major disincentive for school staff to try and keep these highest-risk students in school.

DISCUSS DISCIPLINE AND NEW ZERO TOLERANCE ISSUES REGARDING SOCIAL BEHAVIOR AND DROPOUT- refer to Minnesota paper.

High levels of absence and truancy. Clearly all dropout research shows that dropouts have poor school attendance prior to dropping out (Ekstrom et. al, 1986; Rumberger, 1983; Rumberger and Larson, 1997; Wehlage and Rutter, 1986). Patterns of truancy are gradual, occurring over an extended period of time beginning in junior high school. In many large secondary schools, attendance is not closely monitored and students quickly get the message that school staff don't really care whether they are in school or not (Wehlage, 1987). The HS and B data show that twice as many Hispanic dropouts admit to cutting classes than nondropout Hispanics (Wehlage and Rutter, 1986).

It should come as no surprise that the NLTS reports a significant minority of students with disabilities have high absenteeism - 19% of students with disabilities are absent 20 or more school days. Again, NLTS found that LD and SED students had the highest absence rate of all disability categories. High absenteeism predicts school dropout in students with disabilities just as it does in students without disabilities.

Diminished sense of school membership. Studies of dropouts, ethnic and racial minorities, and special education students all indicate that these students feel much less of a membership or bonding to school than do other students. Wehlage and Rutter (1986) found that dropouts felt alienated from school as indicated by their perceptions of lack of teachers interest in them, expressed belief of poor effectiveness of school discipline and unfairness of school discipline. Ekstrom et. al (1986) also concluded that compared to nondropouts, dropouts are alienated from school life as indicated by feeling less important and less popular and feeling that other students see them as troublemakers. and by lower levels of participation in extracurricular events and self-reported low interest in school.

Lack of strong sense of school membership is also evident in students with disabilities. Special education adolescents are consistently found to be less involved in school activities and have fewer friends in school (e.g., Schumaker, 1984; Simmons, Blyth, Van Cleave and Bush, 1979). Sabornie & Thomas (1989) found that LD and SED junior high students had significantly lower participation, and alienation, and higher rates of victimization than peers without disabilities.

Historically, low SES and ethnic and racial minority students show less affiliation for school than middle class or white students. Hispanic students are often found to have

a difficult time crossing sociocultural boundaries and consequently feel alienated from the norms and values of mainstream education (Delgado-Gaitan, 1988). Hispanics are found to participate less often in class and to report that teachers disapproved of them and felt they lacked ability (Delgado-Gaitan, 1988). Hispanic dropouts report more trouble than other students in getting along with teachers (Stern, Catterall, Alhadeff and Ash, 1985). Lack of affiliation with school is also sadly seen in the data showing that Hispanic dropouts have higher self-esteem than Hispanics adolescents who remain in school (Wehlage and Rutter,1986).

This alienation and resultant poor achievement is not merely a matter of new immigrant status. Studies by Hayes-Bautista, Schienk and Chapa (1989) and Fernandez and Nielsen (1986) found that the longer the residence in the United States the lower the academic achievement and school success.

Ineffective teacher feedback to the parent and student. Everyone needs feedback in order to learn. A basic principal of behavior modification is specific and frequent feedback to the performer. Low-achievers need clear and frequent feedback regarding their performance--what they are doing well and what they need to improve (Brophy and Good, 1986).

The traditional feedback system in secondary schools is report card grades every ten weeks. Many schools provide interim "progress reports" every five weeks. However, lowest-achieving, high-risk students and their parents require feedback and progress reports much more frequently than this. For example, special education students with learning disabilities have been shown to improve their behavior when a "home note" system is implemented (Thomas, & Smith, 1984; Gregor, 1985).

Larson (1989a) found that lowest-achieving junior high school students were not able to accurately predict their five week school grades without interim feedback reports from teachers. Low-income Hispanic parents in this study consistently expressed appreciation for being informed weekly and the students reported that the teacher feedback reports and home notes made a positive impact on their school behavior.

Ineffective parent school participation and teen management. The fact that parental values and attitudes play an important role in academic achievement has long been substantiated by researchers (see Rumberger, 1995). Rumberger et. al (1991b) found that parents of school dropouts were less involved in their child's education than other parents including parents of graduating low-achieving students. Social class has a powerful influence on parent school participation (Astone & McLahahan,1991). For example, one study found that between 40% and 60% of low SES parents fail to attend parent-conferences compared to 20% to 30% for middle class parents (e.g., Van Galen, 1987). Lower-class parents have also been found to attend school events less, make fewer complaints to the principal and enroll their child less in summer school than middle class parents (Stevenson and Baker, 1987).

Parents must not only involve themselves with schools but must also monitor and actively guide their teen's behavior. Rumberger et. al (1991b) found that parents of dropouts had a more permissive parenting style, were less involved in their child's life-decisions, used negative sanctions and emotions when reacting to poor academic performance and contacted the school less often. And still others have found that students develop a more mature psychosocial demeanor when parents monitor and regulate their activities at the same time that they provide emotional support and

encourage independent decision making (Astone & McLanahan, 1991; Dornbusch, Ritter, Leiderman, Roberts & Fraleigh, 1987; Lamborn, Mounts, Steinberg & Dornbusch, 1991). Other researchers found that, for adolescents, parental monitoring of their behavior had a marked positive impact on grades and homework (Fehrman, Keith, & Reimers, 1987).

Not surprisingly, parental involvement is also found related to achievement in Hispanic students (e.g., Casas and Furlong, 1986). Moreover, research has clearly shown that Hispanic parents interact significantly less than nonHispanic parents with teachers and school personnel (Casas and Furlong, 1986b; Delgado-Gaitan, 1994). However, the stereotyped belief that Hispanic parents give little value to education has been recently challenged by research findings which show that values, attitudes, and aspirations concerning education are not very different in Hispanic and Anglo households (e.g., Delgado-Gaitan, 1986). Indeed, Delgado-Gaitan, (1988) found that Hispanic parents were angry when the school did not notify them of their adolescent's poor school performance, even though the parents did not initiate any school contacts themselves. It appears that Hispanic parents fail to participate in their child's school due to lack of understanding the role that parents can and are expected to play in their child's school, due to lack of confidence and due to lack of skills in how to interact with teachers and other school staff (Casas and Furlong, 1986; Delgado-Gaitan, 1986; Delgado Gaitan, 1990).

Junior High School versus Senior High School Interventions

There are plenty of reasons why a dropout intervention program must begin by at least junior high school. First, because the transition from elementary school to middle or

junior high school is particularly critical for a student's subsequent success in secondary school (Ianni 1989). Second, because many students, particularly Hispanic students, drop out before reaching high school. National data show that almost 50% of Hispanic males who left school between October 1984 and 1985 dropped out before the 9th grade (US Bureau of Census 1988, Table 7). The NLTS shows LD and SED students had lower grade point averages in 9th grade than in 11th or 12th grade and that 9th grade students with disabilities have earned only half of their required credits.

These kinds of data have led many reformers to call for middle school or junior high interventions for educationally at-risk students (California State Department of Education 1987; Committee for Economic Development, 1987; US Department of Special Education, 1990). The study reported here was based on the premise that 10th grade is too late for many high-risk students, especially Hispanic students.

The remainder of the paper describes the design of the research, reports the results and discusses the implications of findings.

Methods

Setting: The ALAS program (pronounced ah-lah-ss, meaning Wings in Spanish and an anachronism for Achievement for Latinos through Academic Success) was implemented at a middle school (grades 7-9) in a large urban school district. The barrio in which the target school is located is a high crime, gang infested, and graffiti blighted area. The school enrolls 2,000 students, 94 percent of whom are Hispanic. Taking into account race, language and SES, the school ranks at the 17th percentile on the California State Tests. Not taking these factors into account, the school ranks at the 4th percentile

statewide. Absenteeism at the target school averages 20 percent. In addition, almost two-thirds of the student's parents have not graduated from high school and 75 percent speak only Spanish in the home (US Census, 1992). Per capita income in the local community is half that of the state and county average (approximately \$8,000 versus \$16,000 per US Census, 1992).

Subject Selection. Previous research (Rumberger, 1996) shows the critical importance of school site as a controlling variable in student adjustment, behavior and school drop out. Consequently, we controlled for school site by restricting participation of the treatment and control students to one middle school; i.e., the target school.

Beginning in school year 1990, three cohorts of students were used as subjects in this study. All students in with an IEP designation of learning disabled who entered the school as 7th graders in the fall of 1990 were assigned to the Treatment Cohort I (n = 33). Those who entered as 7th graders in the fall of 1991 were assigned to the Treatment Cohort II (n= 44) and all students with an IEP designation of learning disabled who entered the school as 7th graders in the fall of 1992 were assigned to the Treatment Control Cohort III n = 55). Because all students from a cohort were assigned to a group a few of the students in the study were not Hispanic.

A comparison of treatment and control groups found no significant difference in age, gender, race, 7th grade reading level, SES and proportion of students who were designated as Limited, Bilingual or Full English Proficient (see Table 1).

Insert Table 1

Procedures: Beginning in the 1990-1991 school year, treatment students received the regular school program in conjunction with the ALAS intervention program.

If a treatment student remained at the target school they received the treatment intervention for all three years of junior high school. If a treatment student transferred or dropped out of the target school, the intervention was terminated but the student remained as a subject in the evaluation. All treatment students received all of the intervention strategies. The control group students received the regular (i.e., traditional) secondary school program for students with LD designations and active IEPs.

Intervention Strategies: ALAS staff were based at the target school site every day and accessed the community and home contexts as needed. Staff consisted of an office secretary and caseworkers who served the students and parents as counselor-advocates.

The first component of the ALAS intervention was implemented to positively enhance students' social behavior. This was done using a social metacognitive problem solving training program (Larson, 1988) previously found effective in reducing truancy and misbehavior incidents in a highest-risk group of Hispanic junior high school students. The problem solving training program has also been shown to reduce gang involvement and delinquency (Larson, 1989b) in older adolescents. In the present study, students received one semester of problem solving instruction and two and one half years of follow-up problem solving prompting and counseling.

A second component of the ALAS intervention was school monitoring of period-by-period attendance. Parents were contacted daily about student truancy or extended absence. When necessary parent conferences were held to address the school attendance problem and to help solve difficulties at home that led to absenteeism. Additionally, chronically absent students were either telephoned at home with a wake-up call or were picked up at home and transported to school by ALAS staff. Students were monitored to make up missed school work and were provided with positive adult contacts communicating a personal interest in the student's attendance.

The third component of the ALAS intervention addressed the need to feel affiliated with the school. To increase student affiliation or sense of membership, an ALAS office was configured to become a student "hang out" before and after school and at lunch. Students could keep personal belongings in the office, use the telephone, catch up on homework, have a cup of hot chocolate and be greeted with a smile. This office was also the place where counseling took place. Additionally, small "parties" were held in the office and award certificates presented to celebrate a holiday, birthday or some goal met or some difficulty overcome. The ALAS office became a place where many "nonALAS" students wanted to be and where ALAS students felt they were a member of something in the school.

The fourth component of the ALAS intervention program trained parents in two skills: (1) parent-child problem solving, and (2) parent participation in the schools. The project sent weekly, in some cases daily, notes to parents regarding their child's school performance. Parent conferences developed specific suggestions for improving the child's school behavior. Parents in the project also received direct instruction and modeling in how to reduce their child's inappropriate or undesirable behavior and how to increase desirable behavior at home. Additionally, parents received instruction in how and when to participate in school activities and when and how to contact teachers and administrators.

The community component of the ALAS intervention served to directly facilitate youth and parents' use of community services such as psychiatric and mental health services, alcohol and drug counseling, social services, child protective services, parenting classes, gang intervention projects, recreation and sports programs, probation, work programs, etc. Parents and youth were not simply referred to these community agencies by ALAS staff but are directly helped with making appointments, transportation, letters of reference, reminders, and so forth. Parents were given knowledge and rationale about

how a particular service could benefit them or their child and were monitored for keeping commitments to participate in the community service.

In summary, the ALAS program was multifaceted, comprehensive and directed at the student and three contexts of influence. The model for the program is illustrated in Figure 1.

Insert Figure 1

Results

Variables used to evaluate the efficacy of the intervention program were attrition from the original target school, enrollment in school, attendance, school grades, and high school credits earned. Students in the treatment cohorts were included in the analyses only if they received “full” treatment - that is, they remained in the target junior high school and received three years of intervention during grades 7th - 9th. This approach to testing treatment efficacy does not circumvent the problem of attrition because it is tested in a separate analysis.

Short-Term Outcomes

From the outset of the ALAS program, it was assumed that long-standing school-related behavioral patterns in both students and parents would change slowly and develop over time as new skills were learned and integrated into existing life experiences. Thus, the first evaluation of student outcomes for the program was performed when students were in their 9th grade year. We refer to these outcomes as short-term outcomes.

Attrition from the target school. One measure of the efficacy of an intervention program is its “holding” power as measured by what proportion of the original treatment subjects drop out of the program. That is, attrition from treatment. Clearly, a “highly effective” program with a large dropout rate is not as good as it seems. Attrition from the intervention program in the present study was defined as leaving the target junior high

school at any time during 7th, 8th or 9th grade, thus, terminating treatment. This included students who dropped out of school, left because they were involuntarily transferred out by school administration (for misbehavior), who voluntarily transferred to another school or who left the school because their family moved residences.

Attrition was measured by determining whether a student remained in the target school within the last 20 days of 9th grade. The attrition rate of Treatment Cohort I was 24%, Treatment Cohort II was 20% and Control Cohort was 49%. Treatment effects were statistically significant from the control for both treatment cohorts, Chi-Square = 5.316, $df = 1$, $p < .02$ and Chi-Square = 8.662, $df = 1$, $p < .003$.

Drop out status (end of 9th grade). The primary goal of the ALAS program was to keep students enrolled in school in order to graduate from high school. Enrollment was defined as enrollment within the last 20 days of the 9th grade school year in a program for which high school credits or a GED could be earned. This definition is consistent with the National Education Longitudinal Survey of 1988 (NELS:88). Incarceration in a juvenile correctional facility was counted as school drop out.

By definition, 100 percent of Treatment Cohort I and II were enrolled (we include in the analysis only those receiving the full three years of intervention (75% - 80%) and, thus, they were enrolled at the end of 9th grade) whereas only 74% of the Control Cohort were enrolled. Treatment effects were statistically significant from the control for both treatment cohorts, Cohort I, Chi-Square = 7.877, $df = 1$, $p < .005$ and Cohort II, Chi-Square = 10.767, $df = 1$, $p < .001$.

Attendance (9th Grade). A recent study of middle school dropouts (Rumberger, 1995), shows that excessive absenteeism--more than 25%--greatly increases the odds of students dropping out. The ALAS intervention dramatically reduced excessive absenteeism in Treatment Cohort II with 19 percent of the students absent 25 percent or more of the time in 9th grade compared to 43 percent of the Control Cohort. This was a

statistically significant effect, Chi-Square = 4.421, df = 1, $p < .035$. The intervention did not have an impact on improving Treatment Cohort I attendance with 40 percent of the group being absent 25 percent of the time or more.

High school credits (end of 9th grade). Keeping students enrolled in school is only the first step in getting students to graduate. While they are in school, students must also earn enough credits to progress toward graduation. Passing classes and earning credits is particularly relevant to students with disabilities because the NLTS found that a sizable proportion of students with disabilities, particularly LD and SED students, had markedly unsatisfactory achievement in grades 9-12. At each grade level students with disabilities earned only about half of the required credits. LD and SED students earned the fewest number of credits at each grade level. Part of the low accumulation of credits comes from the high rates of course failure.

In the school district where the ALAS program was implemented, students needed to earn a total of 220 credits to graduate from high school (which is the equivalent of 22 Carnegie units.). Therefore, by the end of 9th grade, students must earn a minimum of 55 credits or one-quarter of their credits to be “on track” to earn a high school diploma in four years. We examined the total number of credits that ALAS students earned by end of the 9th grade including summer school after 9th grade. The ALAS project had a powerful impact on improving students’ progress toward graduation with 72 percent of Treatment Cohort I students on track to graduate within a four year time and 86 percent of Treatment Cohort II students on track to graduate as compared to 37 percent of the HR Control group. Treatment effects were statistically significant for both treatment cohorts, Cohort I, Chi-Square = 8.505, df = 1, $p < .003$; Cohort II, Chi-Square = 20.564, df = 1, $p < .0000$.

Report card grades (9th grade). Data indicate that the ALAS intervention significantly improved school grades for 9th grade classes, especially reducing the

number of failed classes. This is an important finding because failing many of their classes is a common experience of students with disabilities. At every secondary grade level, LD and SED students had the lowest GPA of all disability categories. At every secondary grade level, LD and SED categories also had the largest proportion of students fail at least one class (Wagner et al., 1992).

In general, the intervention served to double or triple the number of passed classes. See Table 2.

Insert Table 2

Intermediate-Term Outcomes

We were also interested in finding out if the effects of the program could be sustained in 10th grade, when the students had moved on to senior high school and were no longer receiving any intervention services. We refer to these outcomes as intermediate-term outcomes because they represent the sustained effects of the program beyond treatment.

Enrollment status (end of 10th grade). To measure intermediate-term effects we monitored enrollment and dropout rates during 10th grade, one year following conclusion of the intervention. Enrollment was defined as enrollment in a program for which high school credits or a GED could be earned. This included traditional high school, private schools, continuation school, adult education programs, vocational training programs, independent study, and special schools for the disabled. Students were not counted as enrolled if they were incarcerated although high school credits were awarded in juvenile detention facilities.

At the end of 10th grade, 84 percent of the HR Treatment students were enrolled compared to 69 percent of the HR Control students (Chi-Square = 3.167, df = 1, p < .07).

To test whether a "full" junior high school ALAS intervention made any difference in intermediate- term outcomes, ALAS students who received three full years of treatment (i.e., stayed in the target junior high school for three years) were compared to the control group and to those who received two years or less of the intervention. Those students with three years of intervention (Full Treatment) were more likely to be enrolled in school at the end of 10th grade than the control group. Ninety-two percent of the HR Full Treatment were enrolled in 10th grade compared to 69 percent of the HR Control students (Chi Square = 6.41, df = 1, $p < .01$).

High school credits (end of 10th grade). We were concerned whether students were not only enrolled in school after the intervention terminated but also if they were earning credits toward graduation. Therefore, we assessed high school credits earned by the end of 10th grade including summer school after 10th grade. Students must have earned a minimum of 110 credits or one-half of their credits (9th and 10th grade) to be “on track” to graduate within a four year timeframe.

Although the number of students who were on track was stunningly low for both groups, far more HR Treatment students (38 percent) were on track than HR Control students (21 percent; Chi-Square =3.24, df = 1, p <.07). Full Treatment HR students (47 percent) compared to HR Control (21 percent) were more than twice as likely to be on track (Chi-Square = 6.57, df= 1, p <.01).

Table 1. Group Characteristics

	Treatment Cohort I		Treatment Cohort II		Control Cohort III	
	n	%	n	%	n	%
Group Size	33	100	44	100	55	100
Gender						
male	24	73	29	66	45	82
female	9	27	15	34	10	18
Ethnicity						
Hispanic	30	91	40	91	51	93
Anglo	0	0	0	0	0	0
Black	3	9	3	7	4	7
Nat. Am.	0	0	1	2	0	0
Age						
mean	12 yr. 11mo.		12 yr. 9 mo.		12 yr. 8 mo.	
sd	6 mo.		6 mo.		6 mo.	
Reading*						
mean ss	6.12		5.85		5.35	
sd	2.41		2.46		2.65	
Language						
English only		%		%		25 %
Bilingual		%		%		26 %
Limited English		%		%		49 %
School Lunch						
yes		%		%		75 %

There is no significant difference between the cohorts

 * Test of Reading Comprehension (Brown, Hammill, Wiederholt)

Table 2. Failed Classes

	Proportion of Failed Classes					
	Treatment Cohort I		Treatment Cohort II		Control Cohort III	
	n	%	n	%	n	%
English		10		8		17
Math		6		13		37
History		10		10		36
Elective 1		10		7		31
Elective 2		8		8		17
Physical Ed.		22		13		24
